

Instructional Guide

California Preschool Curriculum Framework, Volume 3



*Supporting faculty in the California Community College
and California State University systems with
CDE early childhood publications and initiatives*

California Department of Education/
Early Education and Support Division
WestEd Center for Child and Family Studies



**A Foreword from the Co-Director of the
Center for Child and Family Studies, WestEd**

“Preschoolers’ understanding of history and social sciences naturally derives from their expanding knowledge of the world and their place in it”

California Department of Education, 2013, p. 44

“Children have a sense of wonder and natural curiosity about objects and events in their environment. Just like scientists, they seek information and actively explore and investigate the world around them, try things out to see what happens, and confirm or adjust their expectations”

California Department of Education, 2013, p. 136

The *California Preschool Curriculum Framework, Volume 3* gives guidance on how teachers can support preschoolers’ growing understanding of history and social sciences and science concepts and scientific inquiry. It focuses on experiences, environments and materials that support children’s developing sense of self, knowledge of the larger social world, and basic concepts of time and place. In addition to offering strategies for planning learning experiences in the areas of history and social sciences, Volume 3 of the *California Preschool Curriculum Framework* addresses curriculum planning in the science domain. With preschool teachers’ intentional planning and guidance, children’s explorations of objects and nature can become rich opportunities to engage in scientific inquiry and deepen their understanding of objects and events in the world.

This document, the CDE/ECE Faculty Initiative Project *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*, is the latest installment of practical, user-friendly resources developed by the Faculty Initiative Project. Seeking to forge a strong link between the California Department of Education’s (CDE) early care and education quality improvement activities and higher education in California, the Faculty Initiative Project has been supporting the efforts of faculty to infuse information from the CDE’s activities into their course work. The instructional guides, which are being created collaboratively with higher education faculty, are an essential component of the Faculty Initiative Project’s work.

Higher education faculty members will readily recognize the content of the preschool curriculum framework, for many of the principles, concepts, and strategies it presents reflect what they already teach. This instructional guide is designed to meet the needs of faculty in a wide variety of situations. Following a widely used teaching and learning sequence, it offers open-ended activities that can be used in their current form or adapted. In essence, the instructional guide provides an easy-to-use, ready-to-go set of comprehensive resources, including in-class activities and handouts, that relate to all instructional levels, from an introductory class to master’s level graduate study.

My colleagues and I at WestEd greatly appreciate our collaborative partnership with the Faculty Initiative Project advisors and consultants from higher education. It is our hope that this instructional guide will help faculty foster a broad and deep understanding of early learning and development in their students—tomorrow’s early childhood educators. Together with the CDE, we look forward to continuing our work with higher education to ensure that all young children have teachers who possess the knowledge, skills, and dispositions necessary to provide high quality early care and education.

Peter L. Mangione
Co-Director, Center for Child and Family Studies
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Christine Moscou, Faculty Initiative Project Assistant, was a major contributor to the complete process of the creation, development, formatting, and editing of the instructional guide. Special acknowledgment goes to Christine for her exceptional skills, dedication, and comprehensive contributions.

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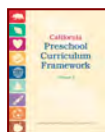
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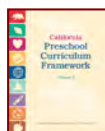
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CDE/ECE Faculty Initiative Project Instructional Guide

***California Preschool Curriculum Framework,
Volume 3***

Introduction to the Instructional Guide

Introduction to the Faculty Initiative Project: *Supporting Faculty*

Responding to early childhood priorities in California, the Early Education and Support Division of the California Department of Education has developed initiatives and published materials to support practitioners, young children, and families involved in early childhood education programs. The Faculty Initiative Project has been charged with supporting faculty in institutions of higher education across the state as they infuse these initiatives into their course work.

The purpose of the California Department of Education/Early Childhood Education Faculty Initiative Project is to align and integrate essential content and competencies of key California Department of Education/Early Education and Support Division materials and initiatives with core early childhood education curriculum of the California Community College and the California State University systems. Faculty will have information and resources to integrate content of the California Department of Education initiatives and publications into unit-bearing course work required for the attainment of college certificates, permits granted by the Commission for Teacher Credentialing, and campus graduation requirements.

About the Instructional Guides: *Key Topics, Active Learning Experiences, and Resources for Higher Education Faculty*

To support faculty as they prepare the early care and education workforce in California to successfully meet the challenges and requirements of implementing recent Early Education and Support Division initiatives and publications, the Faculty Initiative Project has been developing instructional guides to accompany several of these initiatives and publications. These instructional guides are intended to connect professional development in systems of higher education with the content of the Early Education and Support Division initiatives and the following publications:

- *Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)*
- *California Preschool Learning Foundations, Volume 1*
- *California Preschool Learning Foundations, Volume 2*
- *California Preschool Learning Foundations, Volume 3*
- *California Preschool Curriculum Framework, Volume 1*

- *California Preschool Curriculum Framework, Volume 2*
- *California Preschool Curriculum Framework, Volume 3*

Instructional guides have been developed for all of the publications listed above, including this *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*. They all are available on the Faculty Initiative Project Web site, <http://facultyinitiative.wested.org/>.

The instructional guides are developed to

- support the greatest possible utility across the complexity of California's systems of higher education;
- maintain fidelity to the content of the Early Education and Support Division's initiatives;
- adhere to commonly accepted principles of adult learning;
- provide maximum flexibility for faculty;
- support faculty as decision makers; and
- allow faculty to select curricular content that suits their particular students, courses, and program needs.

The instructional guides are intended to help faculty acquaint college students who are preparing for work in preschool settings with Early Education and Support Division publications. In the instructional guides, the word "students" refers to college students and not children in the preschool setting.

Purpose of the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

The purpose of the Faculty Initiative Project's *Instructional Guide for the California Preschool Curriculum Framework, Volume 3* is to support faculty as they deepen their students' familiarity with the content of the publication and to provide students with understanding and practice in how to use the *California Preschool Curriculum Framework, Volume 3* as a resource in planning curriculum and reflecting on intentional curriculum decisions. This instructional guide is designed to encourage students to consistently open and explore the *California Preschool Curriculum Framework, Volume 3*.

Organization of the Publication: *California Preschool Curriculum Framework, Volume 3*

The *California Preschool Curriculum Framework, Volume 3* has an organization that parallels that of the *California Preschool Learning Foundations, Volume 3*. Both of these publications address two domains of early learning and development: history–social science and science. Each domain has a specific organizational format, but generally domains are organized as strands and substrands. Within each domain of the *California Preschool Curriculum Framework, Volume 3* are sections relating to domain guiding principles, to environments and materials, and to interactions and strategies that are appropriate for implementing. There are also vignettes to illustrate the strategies and interactions as well as teachable moments and planning learning opportunities. Each domain has reflective questions and ideas for connecting to families. In addition, there is information in each domain that is specific to that domain.

The *California Preschool Curriculum Framework, Volume 3* also contains an introductory chapter with contextual information, information relating to several critical topics when planning curriculum, and a description of eight overarching principles that guided the development of the framework. This introduction parallels the introduction in the *California Preschool Curriculum Framework, Volume 1* and the *California Preschool Curriculum Framework, Volume 2*, with some adjustments for the domain content of the earlier volumes. The eight overarching principles are consistent for all three volumes of the curriculum framework.

Organization of the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*: Flexible Use for Faculty in Individual Courses and Across Programs

Like the instructional guide for previous volumes of the curriculum framework, the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3* is organized into instructional units. Each unit then consists of key topics. This design enables faculty to use the instructional guide in different courses in a variety of ways. The intent is to support faculty as decision makers as they piece together what will work in an individual course or across a program.

The Organizational Chart for the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3* illustrates the organization of the instructional guide. The location of this chart can be found in the Table of Contents of this instructional guide. This graphic suggests how faculty can explore individual domains or how they can explore some topics—such as environment and materials or interactions and strategies—across domains. For example, each

domain has a key topic for environments and materials and one for interactions and strategies, so faculty could choose to work with environments and materials and/or with interactions and strategies across both domains.

To support working across domains, both in this volume and across domains in earlier volumes, some of the suggested instructional methodology for one domain could be used in other domains. This makes it easier for faculty to expand that topic for work across all domains. This is especially true for the key topic called “Universal Design, Individualizing, and Family Partnerships.” In all domain units, the instructional design for this key topic is essentially the same with adjustments for the specific content of each domain.

This approach also supports faculty if they choose to work individually in each domain and ensures that students are getting essential information and experience in depth for that domain. Some repetition of instructional design across key topics is also intended to deepen habits of exploration and reflection that students then carry into their work.

Topics in Chapter 1 of the *California Preschool Curriculum Framework, Volume 3*, the introduction to Volume 3 of the framework, are addressed in Unit 1 of this instructional guide. Unit 1 can be used with Units 2 and/or 3 of the instructional guide, or it can be used independently of them as an overview of the *California Preschool Curriculum Framework, Volume 3*.

Units 2 and 3 of the instructional guide relate to the domains of early learning and development that are explored in the *California Preschool Curriculum Framework, Volume 3*: history–social science and science.

Unit 4 of the instructional guide provides support and practice for students in understanding how to use the *California Preschool Curriculum Framework, Volume 3* as a resource for curriculum decisions in their work. For most students, Unit 4 will work best after they are familiar with the domain content in the *California Preschool Curriculum Framework, Volume 3* and in the instructional guide. However, there will be situations, perhaps with more experienced students, where Unit 4 can be used to familiarize students with the domains within the context of curriculum planning.

Wherever possible within the instructional guide, relevant page numbers are provided as well as possible connections to the previous publications, including the *Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)*. Key topics, active learning experiences, approaches, and strategies are described broadly enough so that faculty can choose, adapt, tailor, and shape these to their own preferred teaching styles, students, and program needs. This flexibility is offered in the hope of providing maximum utility for the initiatives and publications that the

Early Education and Support Division is preparing for the child care community in California.

Note: When the *Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)* and the first volumes of the *California Preschool Learning Foundations* and the *California Preschool Curriculum Framework* were published, the terms “preschool English learners” and “English-language development” were used. Please note that this instructional guide is using the term “young dual language learners” instead of “preschool English learners” or “young English language learners” in order to be consistent with the current policy of the California Department of Education/Early Education and Support Division. However, the domain in the foundations and curriculum framework is still referred to as the English-language development domain.

Structure of the Key Topics in Each Unit: *Preview Pages and Core Instructional Components*

Each key topic begins with Preview Pages that include the Focus Statement for that key topic, the Curriculum Alignment Project’s (CAP) Courses/Student Learning Outcomes for that key topic, Instructional Methodologies for that key topic, and California Early Childhood Educator Competency Areas to Consider for that key topic.

Following the Preview Pages, the key topic opens with a section titled “Before You Start.” This section provides an overview of the activity to help faculty decide if the key topics fit into their purpose and goals for a class session. Background information and a few tips for faculty preparation or reflection are also included.

Following this section, the materials in each unit and key topic adhere to a framework of core instructional components and are organized into the following six components:

1. *Motivator and Connection to Experience*

These connect the content of the unit to the personal and/or professional experience of the learner. It establishes motivation by embedding the topic within a situation or question with which the learner might be familiar and suggests ways to extend learning by providing challenges or issues to consider. The “Motivator and Connection to Experience” may include the following elements:

- *Critical question*
- *Challenging situation: short vignette that might be text, video, or audio*
- *Challenging quote or text*

The “Motivator and Connection to Experience” is often accompanied by a set of guiding questions for reflection. These are not assessment questions but are intended to engage the learner in remembering and reflecting on—not evaluating—their own experiences, feelings, personal actions, or actions of others.

2. *Information Delivery*

For each key topic, this component is designed to introduce specific content to students in the class setting. The delivery of information may be brief or long and may be composed of a single topic or several related topics, such as key concepts within a given chapter. “Information Delivery” may include lecture content, reading assignments, and/or location of key information in the *California Preschool Curriculum Framework, Volume 3* as well as the preschool learning foundations or the first two volumes of the curriculum framework.

3. *Active Learning*

In some previous instructional guides there were learning experiences designated to be used in class or out of class. In this instructional guide, these are part of the “Active Learning” instructional components. Many of these can be fashioned into work that is done in class or out of class based on faculty determination of what will work best for a particular situation. The intent of the suggested active learning is to engage students in the key topic through learning experiences that will be active, thoughtful, challenging, and relevant to the content. This work might include, but is not limited to, these instructional approaches:

- Class discussion
- Small group work
- Demonstrations
- Observations
- Interviews or panels
- Internet resources
- Research on a particular topic

4. *Questions for Reflection*

These provide opportunities for students to reflect on the experience of working with the key topic. There are also questions for reflection at the end of each strand in the *California Preschool Curriculum Framework, Volume 3*,

but they differ from the instructional guide's questions in that the curriculum framework questions generally ask students to reflect on the information in the framework. Across many but not all of the key topics in the instructional guide is a set of questions with a repeated structure. This is intentional and is designed to impart to students a useful set of questions to carry with them for reflection in their current or future work.

5. *Deeper Understanding*

This segment provides suggestions for independent research and/or ways to take students deeper into some important issues or concepts related to the key topic.

6. *Online Options*

Suggestions are made for ways to implement or adapt active learning to student work that is done online. This might be in online courses or as online assignments for face-to-face courses. These are not meant to be exhaustive but to indicate the kinds of adaptations that can be made to support faculty and students who work online.

PowerPoint Presentations



Slide 1

This symbol appears in the left margin of the instructional components through most of the key topics in the instructional guide. This symbol indicates that there are PowerPoint slides that correspond to a particular part of the “Active Learning” component of the key topic.

**Organization of Each Active Learning Component:
*Flexible Segments***

Active Learning

This component describes learning sessions that can be conducted within the time frame of a single class or over several class sessions by individuals, pairs, small groups, or the whole class. Each “Active Learning” component is organized in a sequence by which the work can unfold for students as they move progressively deeper into the topic. These learning sessions are intended to be active, thoughtful, challenging, and relevant to the content. “Active Learning” is further divided into the following segments:

- *Getting it started*
- *Keeping it going*
- *Taking it further*

- *Putting it together*
- *Another approach*

Not every key topic contains all of these segments of “Active Learning.” They are included when they are relevant and enhance learning or instructional possibilities.

Working Across the Nine Domains

Because Volume 3 of the *California Preschool Curriculum Framework* completes the publication of the preschool curriculum framework for all nine domains of learning for preschoolers in California’s Early Learning and Development System, it presents some opportunities to work across all of the nine domains contained in Volumes 1, 2, and 3 of the *California Preschool Curriculum Framework*. There are many ways to do this, but this instructional guide, combined with previous instructional guides, provides some explicit ways to address all nine domains.

First, there is the possibility, mentioned previously, of working across environments and materials in all domains or across interactions and strategies in all domains. This approach is specifically supported in Unit 4 of this instructional guide.

Additionally, Appendix C and Appendix D of this instructional guide are provided as comprehensive resources.

There are also opportunities in each domain in this instructional guide that can be used, individually or in combination, to support students in exploring some ways in which the domains are connected. This is intended to support an understanding that learning in young children is integrated and multifaceted. Rather than attempting to connect each domain to every other domain, learning experiences were developed to highlight selected connections.

Features of the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Student Learning Outcomes

To support faculty in decisions regarding how and where they can best use the *California Curriculum Framework, Volume 3* in their course work or across their program, the student learning outcomes developed by the Curriculum Alignment Project for the eight core lower division early childhood courses have been mapped onto each key topic in this instructional guide for consideration. More information about the Curriculum Alignment Project and the student learning

outcomes can be found at https://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm. At the beginning of each key topic, the Preview Pages will provide the list of courses that have been mapped onto the specific key topic.

The Curriculum Alignment Project's student learning outcomes, objectives, and examples of course content and topics indicated for this instructional guide for the *California Preschool Curriculum Framework, Volume 3* can be found in Appendix A of this instructional guide. Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by unit/domain. The location of the Student Learning Outcomes Index is listed in the Table of Contents for this instructional guide.

These student learning outcomes are organized by the Curriculum Alignment Project's core lower division early childhood courses. This is not an exhaustive list, and faculty might find ways to use the key topics to address student learning outcomes in ways other than what has been indexed. Working through these selected key topics does not guarantee the achievement of any student learning outcome or objective; it is understood that students achieve student outcomes through repeated engagement with information and experiences that build competence.

To assist faculty in using these student learning outcomes as supports for decision making, the instructional guide key topics are indexed first by units and domains, then by the Curriculum Alignment Project's courses and student learning outcomes so that faculty can select what is most relevant to their particular needs. Student learning outcomes are matched to specific key topics in the instructional guide that will support attainment of that outcome. Not all student learning outcomes map onto the specific content of the instructional guide.

Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by units/domains. Refer to Appendix A of this instructional guide for more detailed and specific student learning outcomes, objectives, and examples of course content and topics.

California State University and University of California

The Curriculum Alignment Project (CAP) course and student learning outcome mapping with this instructional guide is done with the understanding that not all institutions will use these particular student learning outcomes or objectives. This is particularly true for faculty at the California State University and University of California campuses. The student learning outcomes do provide learning outcomes that can be used selectively or with adaptations for courses at the California State University and University of California campuses and indicate what can be accomplished by students through using the key topics in this instructional guide.

Instructional Methodologies

Each key topic is written to include a variety of instructional methodologies. This is intended to provide varied learning experiences for students as they encounter the curriculum framework. It also provides another variable for faculty to use in deciding which key topics will best suit the needs of their students and programs. In this instructional guide, these methodologies are identified for each key topic and are listed on the key topic Preview Pages. These instructional methodologies are also indexed so that faculty can get an overview of which methodologies are used across all units and key topics. The index also includes working definitions of each of the instructional methodologies used in the instructional guide. The location of the Instructional Methodologies Index is listed in the Table of Contents for this instructional guide.

California Early Childhood Educator Competency Areas

In this instructional guide, the competency areas of the California Early Childhood Educator Competencies are listed on the key topic Preview Pages. This list is titled “California Early Childhood Educator Competency Areas to Consider.” These are preliminary connections and are not meant to be exhaustive. Faculty will find more connections in their courses to both competency areas and competency contexts as they become more familiar with them. Competency areas are listed in this instructional guide as an initial exploration of how particular areas might be addressed through these key topics. There is no index for them in this instructional guide due to the preliminary nature of the mapping.

Instructional Guide Resources: Appendixes

To support the preparation of the early care and education workforce in California, this instructional guide offers several appendixes containing relevant content. To locate these appendixes, refer to the Table of Contents of this instructional guide.

Appendix A – “Student Learning Outcomes and CAP Lower Division Courses Mapped Onto the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*”

Because Volume 3 of the *California Preschool Curriculum Framework* completes the publication of the preschool curriculum framework for all nine domains of learning for preschoolers in California’s Early Learning and Development System, it presents some opportunities to work across all of the nine domains contained in Volumes 1, 2, and 3 of the *California Preschool Curriculum Framework*.

The following appendixes provide comprehensive resources for faculty and students to work across all nine domains.

Appendix B – Summary of the *California Preschool Learning Foundations All Nine Domains*

Appendix C – Sample Environments and Materials for All Nine Domains of the *California Preschool Curriculum Framework*

Appendix D – Sample Interactions and Strategies for All Nine Domains of the *California Preschool Curriculum Framework*

Appendix E – Overarching Principles and Domain Guiding Principles All Nine Domains of the *California Preschool Curriculum Framework*

The following appendix provides links and resources for online access.

Appendix F – Related Links and Resources

For additional instructional guide resources, continue to check out the Faculty Initiative Project's Web site at <http://facultyinitiative.wested.org/>.

DRAFT Organizational Chart

Instructional Guide for the California Preschool Curriculum Framework, Volume 3

	Overall introduction to the <i>California Preschool Curriculum Framework, Volume 3</i> : context and content	Getting to know the <i>California Preschool Curriculum Framework, Volume 3</i> : Learning what is in each domain chapter and how to use each domain chapter as a resource for supporting each domain		Using the curriculum framework as a resource for planning and integrating curriculum across domains
Introduction to the Instructional Guide	 Unit 1 Chapter 1: Introduction to the Framework	 Unit 2 Chapter 2: History–Social Science	 Unit 3 Chapter 3: Science	 Unit 4 Chapter 4: California Preschool Curriculum Framework as a Resource for Planning and Integrating Curriculum
Introduction to the Faculty Initiative Project	Getting Ready for the Unit	Getting Ready for the Unit	Getting Ready for the Unit	
About the Instructional Guides	Key Topic 1: Getting to Know the Organization of the <i>California Preschool Curriculum Framework, Volume 3</i>	Key Topic 1: Organization and Rationale of the History–Social Science Domain	Key Topic 1: Organization and Rationale of the Science Domain	Key Topic 1: Integrating the History–Social Science Domain or Science Domain with Other Domains
Purpose of the <i>Instructional Guide for the California Preschool Curriculum Framework, Volume 3</i>				
Organization of the Publication	Key Topic 2: Getting to Know the Eight Overarching Principles	Key Topic 2: Getting to Know Environments and Materials That Support History–Social Science	Key Topic 2: Getting to Know Environments and Materials That Support Science	Key Topic 2: Integrated Planning Using California’s Early Learning and Development System
Organization of the Instructional Guide				
Structure of the Key Topics in Each Unit: Core Instructional Components	Key Topic 3: Getting to Know the Curriculum-Planning Process	Key Topic 3: Getting to Know Interactions and Strategies That Support History–Social Science	Key Topic 3: Getting to Know Interactions and Strategies That Support Science	Key Topic 3: Young Dual Language Learners
Organization of Each Active Learning Component				
Working Across the Nine Domains		Key Topic 4: Universal Design, Individualizing, and Family Partnerships	Key Topic 4: Universal Design, Individualizing, and Family Partnerships	Key Topic 4: Exploring Key Elements of the Curriculum Framework Across Domains
Student Learning Outcomes				
Instructional Methodologies		Key Topic 5: Exploring the Research Highlights of the History–Social Science Domain	Key Topic 5: Exploring the Research Highlights of the Science Domain	
ECE Competency Areas				
Appendixes				

CDE/ECE Faculty Initiative Project Instructional Guide

California Preschool Curriculum Framework, Volume 3 (2013)



Unit 3 Science Domain



Unit 3 – Science: Getting Ready for the Unit and Connecting to Experience

Focus Statement

Students explore the terminology of the science domain and reflect on ways in which they encounter aspects of the physical sciences, life sciences, earth sciences, and scientific inquiry in their everyday lives.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project's (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Observation and Assessment
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Pairs or small groups
- Personal reflection
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division's *California Early Childhood Educator Competencies*. The "Competency Areas to Consider" below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning



- Observation, Screening, Assessment, and Documentation
- Learning Environments and Curriculum
- Professionalism



Unit 3 – Science: Getting Ready for the Unit and Connecting to Experience

Getting Ready for the Unit

The science domain in the *California Preschool Curriculum Framework, Volume 3* provides resources for the support of active learning experiences in the early years that “nurture children’s habits of inquiry, critical thinking, creativity, and innovative problem solving . . .” (page 136).

The domain consists of four strands: Scientific Inquiry, Physical Sciences, Life Sciences, and Earth Sciences. The substrands in Scientific Inquiry are 1.0 Observation and Documentation and 2.0 Documentation and Communication. These relate to the process of scientific inquiry. The other three strands share the same substrands. These shared substrands relate to properties and characteristics and to change in the three areas of scientific inquiry. There is a glossary of scientific terms used in the domain on pages 244–246. Because many of these terms are specific to this domain, it is recommended that faculty be familiar with these terms before introducing students to this domain.

It will be important to help students become aware of the relationship of this *California Preschool Curriculum Framework, Volume 3* to the foundations in the *California Preschool Learning Foundations, Volume 3*. The foundations are goal-like statements that describe what children—at 48 and 60 months of age—typically learn and develop with optimal support. The curriculum framework provides guidance for how teachers can intentionally support this learning and development in young children. Faculty can familiarize students with the foundations in the science domain through Learning Experience 3 in the science domain of the instructional guide for the *California Preschool Learning Foundations, Volume 3*. This is available on the Faculty Initiative Project Web site at <http://facultyinitiative.wested.org/>. Familiarity with the foundations will support students in understanding the resources and recommendations in the *California Preschool Curriculum Framework, Volume 3*.

Unit 3 in this instructional guide is designed to provide resources for faculty as they prepare their students to work with the science domain. The California preschool curriculum framework is available to be used as a resource for teachers of young children. As a resource, the framework will be most useful if students are well acquainted with its content. The key topics in this unit are intended to provide students with learning experiences that will increase their familiarity with the science domain in the curriculum framework so that students are able to use the framework as a resource as they plan and implement curriculum for young children.



The unit begins with a learning experience designed to highlight the extent to which we all have connections to science content and scientific inquiry in our lives. Key Topic 1 provides opportunities to explore the rationale, organization, and guiding principles of the domain with three different subtopics. Key Topic 2 explores the environments and materials that are recommended as supports for planning and delivering science curriculum for young children. Because scientific inquiry is fundamental to science curriculum, the environments and materials are presented in the framework for the physical environment in the classroom and also for the social environment. Students will have an opportunity to work with both these aspects of science curriculum. Key Topic 3 then provides students an opportunity to work with the recommended interactions and strategies for this domain and look for examples in vignettes or identify other examples. Key Topic 4 addresses the important issues of individualization, universal design, and partnering with families through three separate subtopics. Key Topic 5 can be used for furthering students' understanding of the resources available to deepen and strengthen their understanding of science curriculum with young children.

Motivator and Connection to Experience

Before You Start

Faculty and students will bring a variety of experiences with science learning to this domain. It will be important to acknowledge that this domain may represent experiences that have been challenging as well as fascinating in students' own experiences. In addition, many family and community approaches to science may vary in their choices regarding explanations and descriptions. These must be recognized and respected as students navigate this domain, but keep in mind that, as stated on page 142 of the *California Preschool Curriculum Framework, Volume 3*, "science bridges across different cultures and languages." Phenomena can be described in different languages but are the same.

Information Delivery



Slides 2-7

A good way to begin exploring this domain would be by asking students to read the introduction to the science domain. Take a few minutes in class to read pages 136, 137, and the first column of 138. Remind students of the difference between foundations and curriculum framework. This might be a good time to review the foundations of the science domain if students have not encountered them previously. The foundations can be downloaded from the California Department of Education Web site at <http://www.cde.ca.gov/sp/cd/re/psfoundations.asp>.

Active Learning

Getting it started

Remind students that we all have experiences every day with scientific objects and events. Take a few minutes to ask:



Slide 8

“Where have you encountered science in your life today?”

Physical Sciences:

- Computers
- Video
- Other technology

Life Sciences:

- Attention to nutrition
- Medications
- Gardens

Earth Sciences:

- Highway construction
- Dressing for current weather

Once this conversation begins, there might be many examples.

Keeping it going

Direct students to the glossary on page 244–46 of the *Preschool Curriculum Framework, Volume 3*. Ask students to work in pairs and review the glossary for terms that are very familiar or not at all familiar. Ask them to note up to three terms that were new or had definitions that were new and three that they use quite a bit.

Ask students to reconvene as a whole group and discuss their experiences with the glossary. Did they have “aha” experiences? Or did they respond with “I didn’t know that” or “Oh, that’s what that means”?

Online Options

Students could post their familiar and new glossary terms online and review their classmates’ postings in preparation for an in-class discussion.

If some form of online-discussion capability such as a chat room is available, faculty could facilitate an online discussion of the students’ experience with the glossary.



Slide 9

Taking it further

Ask students to find terms that relate specifically to scientific inquiry. These would be terms that refer to observation, investigation, and documentation. As you identify these together, note how many of the terms in the glossary relate to the process of inquiry that is important to nurture in young children.



Slide 10



Ask students to think of times during the day that they use these practices. For example, do they use estimating when cooking? When do they compare and contrast materials or events?

Remind students that these processes are ones that we use every day but that we make them systematic and intentional when working with young children to strengthen their use of them.

Online Options

If some form of online-discussion capability such as a chat room is available, faculty could facilitate an online discussion of the students' identification of terms related to scientific inquiry and their everyday use of scientific inquiry practices.

Another approach

This exploration of the glossary can be done as an informal conversation, as suggested in the “Keeping it going” and “Taking it further” sections, or in a written format. Familiar and unfamiliar terms could be written on chart paper and compared. Similarly, the terms relating to process could be listed with examples written below them. Charting the terms would make them visible for analysis and reflection.

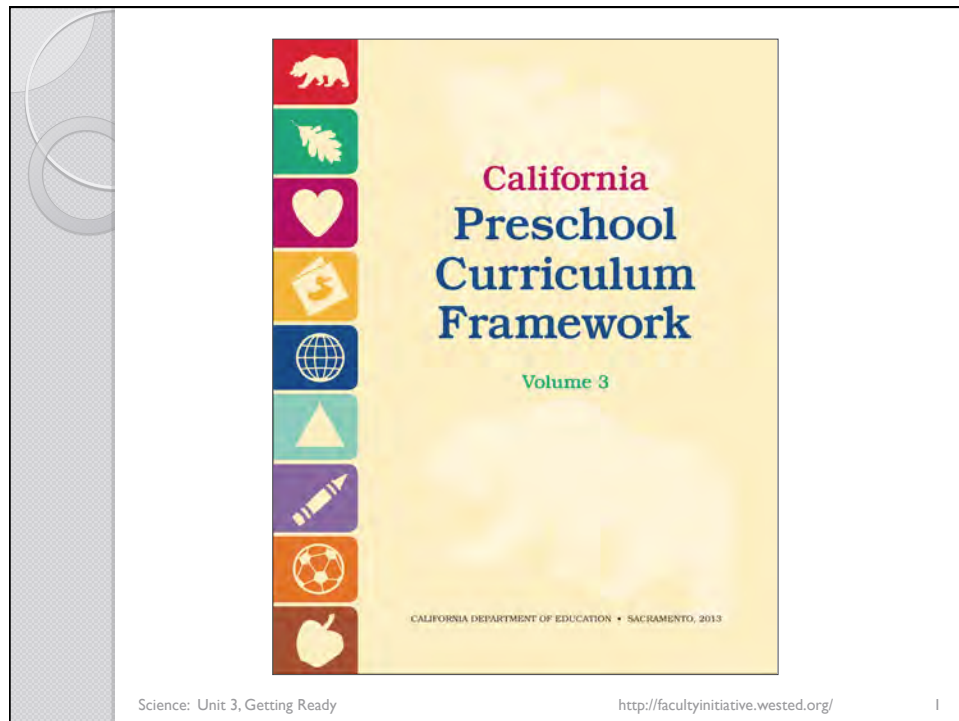
Reflection

After students have worked through the active learning segments, ask them to reflect on their connection to science with the following questions:



Slide 11

- Did anything surprise you as you thought about your experiences with science on an everyday basis?
- Where did you find connections to terms in the glossary?
- What would you look forward to doing with young children that might relate to your experiences?
- What do you want to find out more about? How could you do that?



Science

The science domain in the *California Preschool Curriculum Framework, Volume 3* is:

- A companion to the science domain in the *California Preschool Learning Foundations, Volume 3*.
- A guide for teachers in planning curriculum that supports learning in science.
- Organized with the same strands and substrands as the foundations.

Science

The **foundations** are the **what**

~ goal-like statements that describe **what** children typically learn and develop with optimal learning opportunities and support.

The **curriculum framework** is the **how**

~ guidance for **how** teachers can intentionally support children's learning and development.

Science: Unit 3, Getting Ready

<http://facultyinitiative.wested.org/>

3

Science

The science domain provides resources to support active learning experiences that:

“nurture children's habits of inquiry, critical thinking, creativity, and innovative problem solving ...”

California Preschool Curriculum Framework, Volume 3 (page 136)



Science: Unit 3, Getting Ready

<http://facultyinitiative.wested.org/>

4

Science

The science domain in the *California Preschool Curriculum Framework, Volume 3* contains:

- Guiding principles
- Suggestions for environments and materials
- Vignettes
- Teachable moments
- Interactions and strategies
- Strategies for engaging families
- Research highlights
- Questions for reflection

Science: Unit 3, Getting Ready

<http://facultyinitiative.wested.org/>

5

Science

Summary of the Strands and Substrands

Scientific Inquiry

(skills and language related to science)

1.0 Observation and Investigation

2.0 Documentation and Communication

Physical Sciences

1.0 Properties and Characteristics of
Nonliving Objects and Materials

2.0 Changes in Nonliving Objects and
Materials

Science: Unit 3, Getting Ready

<http://facultyinitiative.wested.org/>

6

Science

Summary of the Strands and Substrands

Life Sciences

1.0 Properties and Characteristics of Living Things

2.0 Changes in Living Things

Earth Sciences

1.0 Properties and Characteristics of Earth Materials and Objects

2.0 Changes in the Earth

Science: Unit 3, Getting Ready

<http://facultyinitiative.wested.org/>

7

Science

“Where have you encountered science in your life today?”



Science: Unit 3, Getting Ready

<http://facultyinitiative.wested.org/>

8

Science

**Glossary, page 244–46,
*Preschool Curriculum Framework, Volume 3.***

- Identify 3 new terms.
- Find 3 terms that are familiar.



Science: Unit 3, Getting Ready

<http://facultyinitiative.wested.org/>

9

Science

**Glossary, page 244–46,
*Preschool Curriculum Framework, Volume 3.***

- Identify terms related to *scientific inquiry*
 - Observation
 - Investigation
 - Documentation

Science: Unit 3, Getting Ready

<http://facultyinitiative.wested.org/>

10



- Did anything surprise you as you thought about your experiences with science on an everyday basis?
- Where did you find connections to terms in the glossary?
- What would you look forward to doing with young children that might relate to your experiences?
- What do you want to find out more about? How could you do that?



Unit 3 – Science:

Key Topic 1: Organization and Rationale of the Science Domain

Focus Statement

Students become familiar with the rationale and guiding principles for the science domain in the *California Preschool Curriculum Framework, Volume 3*. They also explore how the domain is organized.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project's (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Child, Family and Community
- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Creation of a visual representation
- Notetaking outline or guide
- Pairs or small groups
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division's *California Early Childhood Educator Competencies*. The "Competency Areas to Consider" below are listed in this instructional guide as a



preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Dual-Language Development
- Special Needs and Inclusion
- Learning Environments and Curriculum
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision



Unit 3 – Science:

Key Topic 1: Organization and Rationale of the Science Domain

Before You Start

This key topic has three subtopics:

Subtopic 1: Rationale for the Science Domain. This subtopic introduces students to the rationale for addressing science in the early years. Through a brief discussion, students will explore why it is important to intentionally plan science experiences for young children.

Subtopic 2: Organization of the Science Domain. Students are introduced to the unique organization of four strands, with three strands having the same substrands. They will be asked to work in pairs to outline the three strands that relate to specific content areas: physical sciences, life sciences, and earth sciences. Then they will form groups of four and outline the strand for Scientific Inquiry. As they proceed through this subtopic, they will discover some of the differences and similarities in how these strands are organized and have time to reflect on why they might be this way.

As students are working with the organization of this domain, it will be important for them to see that there are some elements that are consistent to all strands and some that are not. An alternative way to explore the organization of the domain is also addressed in this subtopic. This approach assigns certain organizational elements to students and ask them to find these across substrands and describe them to their peers, who have been searching for different elements.

Subtopic 3: Guiding Principles for the Science Domain. Here students are assigned 1 or 2 of the 11 guiding principles for the science domain and asked to develop an expressive representation of the assigned principle. This could be a visual art product such as a drawing or collage, a short video, or a slide show, depending on the students' familiarity and skills with those products and the resources that are available. Approaching this work through visual representation provides an opportunity for students to experience communicating about a concept using images. These are then presented during a class time for all to explore.

Information Delivery

Students will need to have read, or read in class, pages 136–38 and pages 151 and 152 of the *California Preschool Curriculum, Volume 3*. These pages provide a brief rationale for science learning in the



Slides 2-3

early years and a brief summary of the strands and substrands in the science domain.

Students will have a chance to explore the guiding principles in Subtopic 3 of this key topic and will encounter the pages relating to environments and materials in Unit 3, Key Topic 2 in this instructional guide.

Active Learning



Slide 4

Subtopic 1: Rationale for the Science Domain

Getting it started

Faculty can begin a discussion of pages 136–38 of the *California Preschool Curriculum Framework, Volume 3* by asking students what stood out for them as they read these brief sections. Point out that the stated purpose of preschool science is on page 136.

Keeping it going

Continue the conversation with the following questions:

1. Why is it important that children's natural curiosity be nurtured in preschool? What is the long-term advantage of that for the child?
2. Why is it important to organize sciences experiences and think about intentionally teaching science with young children?

These questions could spark some interesting discussions and follow-up questions such as these two examples: How much of what is already done in many preschools could be called science? How is what this framework is suggesting different from that?

Online Options

Students could list the highlights from their reading and write a one- or two-paragraph response to each of the questions and post their responses online. Faculty could then ask students to review their classmates' postings in preparation for an in-class discussion.

If online-discussion capacity such as a chat room is available, faculty could facilitate an online discussion of the two questions.



Subtopic 2: Organization of the Science Domain

Getting it started

Organize students into pairs and assign one of the three content area strands to each pair of students. These strands are physical sciences, life sciences, and earth sciences.

Ask students to outline the strand they are assigned. Though some students might have electronic devices available with which they can do this, it is recommended that this is done with paper and pencil. This will facilitate the next step.



Slide 5

Outlining should be done using the following elements:

- Substrand title
- Vignette
- Teachable moment
- Interactions and strategies
- Planning opportunities
- Research strategies
- Bringing it all together
- Engaging families

Online Options

Students could work individually to develop an outline of one of the strands and then post their outlines online. Students could then compare their outlines with those of their peers in preparation for an in-class discussion. If online-discussion capacity such as a chat room is available, faculty could facilitate an online discussion of the students outlines of the strands.

Keeping it going

After the three content area strands have been outlined, ask students to recombine into groups of three, with one student from each strand in each group. Ask them to briefly compare their outlines, looking for differences and similarities. Then ask them to continue working in their groups and produce an outline of the first strand, Scientific Inquiry.

Putting it together

Reconvene the whole group, and begin a discussion about the organization of the science domain with these questions:

1. Why do you think there are four strands, with Scientific Inquiry being so different from the other three?



Slide 6



2. Why would the three content area strands have the same substrands? Does this help you think about how to organize science learning experiences for young children?
3. Are there other ways this domain could have been organized? For example, what if there were three strands and a scientific inquiry substrand in each one. Would that have worked? Why or why not?

Subtopic 3: Guiding Principles for the Science Domain



Slides 7-10

Getting it started

Direct students to pages 138–142 of the *California Preschool Curriculum Framework, Volume 3*. On these pages, they will find the 11 guiding principles for the science domain. Remind students that these principles support active learning and habits of inquiry and critical thinking.

Suggest to students that they need to think about how they can communicate these principles to parents. Provide students, individually or in pairs, with materials needed to produce a poster that describes or illustrates a principle. The materials could include posters, markers, old magazines, and any other art materials available. Students can be assigned to one principle or they can choose which principle they would like to work with, as long as all principles are covered. The poster should describe or illustrate the principle in such a way that it could be explained to peers or parents of young children.

Putting it together

When they are finished, display the posters around the room. Ask students to first walk around and view the posters. Then ask each student or pair to discuss their poster, with emphasis on how they could describe the principle to parents.

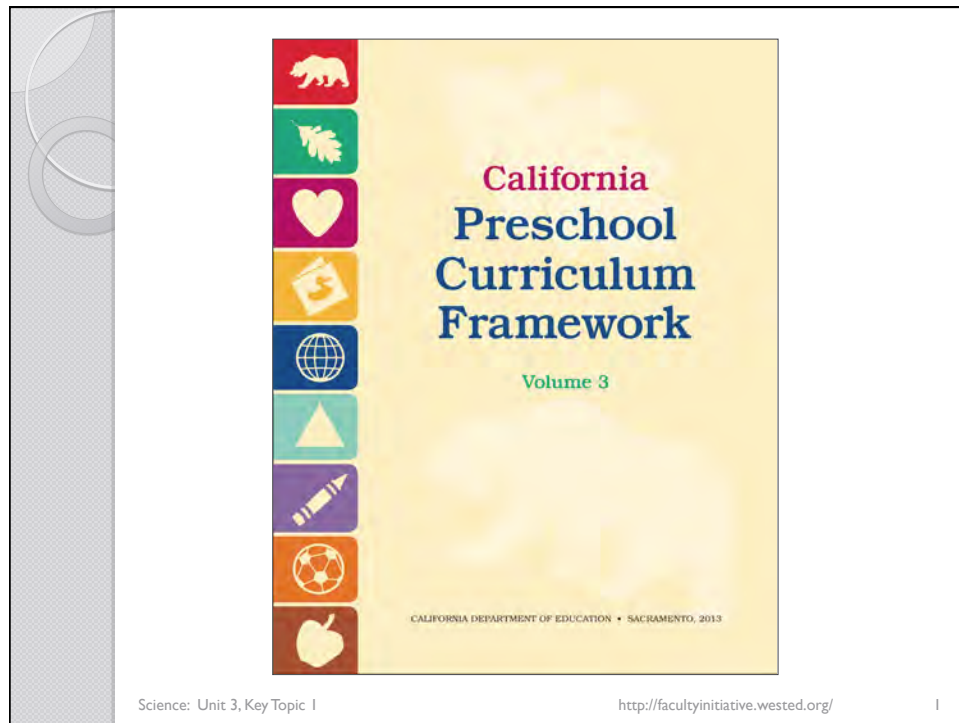
Reflection



Slide 11

For any of the subtopics, the following questions can be used to reflect on their experiences:

- What stands out for you in this experience?
- What did you learn about your connection to science in your life?
- What is something that you would like to learn more about? How can you do that?



Science

Summary of the Strands and Substrands

Scientific Inquiry

(skills and language related to science)

- 1.0 Observation and Investigation
- 2.0 Documentation and Communication

Physical Sciences

- 1.0 Properties and Characteristics of Nonliving Objects and Materials
- 2.0 Changes in Nonliving Objects and Materials

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

2

Science

Summary of the Strands and Substrands

Life Sciences

1.0 Properties and Characteristics of Living Things

2.0 Changes in Living Things

Earth Sciences

1.0 Properties and Characteristics of Earth Materials and Objects

2.0 Changes in the Earth

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

3

Science

Read pages 136–138 and 151–152 of the
California Preschool Curriculum Framework, Volume 3

- Why is it important that children's natural curiosity be nurtured in preschool? What is the long-term advantage of that for the child?
- Why is it important to organize sciences experiences and think about intentionally teaching science with young children?

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

4

Science

Outline the strand (physical, life, or earth sciences)

- Substrand title
- Vignette
- Teachable moment
- Interactions and strategies
- Planning opportunities
- Research strategies
- Bringing it all together
- Engaging families

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

5

Science

Organization of the Science Domain

- Why do you think there are 4 strands, with Scientific Inquiry being so different from the other 3?
- Why would the 3 content area strands have the same substrands? Does this help you think about how to organize science learning experiences for young children?
- Are there other ways this domain could have been organized?

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

6

Science

Guiding Principles for the Science Domain

- The preschool environment supports children's curiosity and encourages inquiry and experimentation.
- Content of inquiry is developmentally appropriate and builds on children's prior experiences.
- Scientific inquiry experiences are interesting and engaging for children and teachers.

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

7

Science

Guiding Principles for the Science Domain

- Children explore scientific concepts directly through active, hands-on, minds-on playful experiences.
- Children explore scientific concepts in depth through multiple, related learning experiences over time.
- Children construct knowledge through social interactions with peers and adults.

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

8

Science

Guiding Principles for the Science Domain

- Children use language and other forms of communication to express their thoughts, describe observations, and document their work.
- Teachers support children who are English learners in understanding and communicating scientific knowledge and skills.

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

9

Science

Guiding Principles for the Science Domain

- Science is embedded in children's daily activities and play and provides a natural vehicle for integrating mathematics, literacy, and other content areas.
- Individual differences are recognized, and all children are included and supported.
- The preschool environment, home, and community are connected through science.

Science: Unit 3, Key Topic 1

<http://facultyinitiative.wested.org/>

10



- What stands out for you in this experience?
- What did you learn about your connection to science in your life?
- What is something that you would like to learn more about? How can you do that?



Unit 3 – Science:

Key Topic 2: Getting to Know Environments and Materials that Support Science

Focus Statement

Students review the strategies for planning and setting up the physical and social environments to promote children’s learning in science. Students also compare these strategies with the lists of suggested materials.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child, Family, and Community
- Introduction to Curriculum
- Principles and Practices for Teaching Young Children
- Observation and Assessment
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Notetaking outline or guide
- Pairs or small groups
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.



- Family and Community Engagement
- Observation, Screenings, Assessment, and Documentation
- Learning Environments and Curriculum
- Professionalism
- Administration and Supervision



Unit 3 – Science:

Key Topic 2: Getting to Know Environments and Materials that Support Science

Before You Start

The science domain, like all domains in California’s preschool curriculum framework, provides strategies for “Environments and Materials” that support young children’s learning in the specific domain. In the *California Preschool Curriculum Framework, Volume 3*, the suggestions for environments and materials for the science domain are on pages 142–150. These are divided into two main categories: “The Physical Environment” on pages 142–147 and “The Social Environment” on pages 147–150. Including the social environment supports establishing a “culture of inquiry,” which is fundamental to nurturing the processes of exploration, investigation, and critical thinking in young children. In a preschool environment with a culture of inquiry, the teacher asks open-ended questions to encourage children to think and talk with each other. This key topic will ask students to explore both aspects—the physical environment and the social environment—of supporting science learning in early childhood settings.

In addition, this key topic calls attention to the Appendix called “Suggested Materials” on pages 234–236 of the *California Preschool Curriculum Framework, Volume 3*. Students are asked to consider these materials as they might apply to the suggested strategies for both physical and social environments. Two handouts accompany this key topic. Handout 1 relates to the physical environment, and Handout 2 relates to the social environment. The handouts provide grids with the suggested strategies in the rows and major categories of suggested materials in the columns. They can be used in several ways, but the discussion in the “Keeping it going” segment is critical to student learning with these handouts. With faculty guidance through the suggested questions, students will see that science learning is pervasive in the early childhood setting, yet requires intentional planning **and** attention to teachable moments. Electronic versions of these handouts will be available when this instructional guide is online at <http://facultyinitiative.wested.org/>.

If students have not had experience with this domain, faculty might want to spend some time with students reviewing the organization of the domain as presented in Unit 3, Key Topic 1, Subtopic 2 of this instructional guide or all of Key Topic 1, which explores the rationale and guiding principles for the domain as well as the organization of the domain.



Information Delivery



Slide 2

Active Learning



Slides 3-4

Ask students to read pages 142–150 of the science domain in the *California Preschool Curriculum Framework, Volume 3*. They could do this before coming to class, or time could be given in class. Also, ask students to locate and review the publication Appendix on pages 234-236 called “Suggested Materials.”

Getting it started

Organize students into groups of two, three, or four. The size of the groupings does not matter as much here as the opportunity to explore and discuss the material with peers. Let students know that they will be using the handouts that accompany this key topic. Faculty can give each group both handouts, divide the handouts between the groups, or work with one handout and then the other.

Ask students to find the strategies to set up a physical environment (Handout 1) or social environment (Handout 2) and the four major categories of suggested materials. For each strategy, students are asked to locate the category of suggested materials that would support that strategy and mark the corresponding rectangle on the grid with an x. Ask students to also provide a few examples for that decision.

For example, for the strategy “Provide a variety of natural materials to observe and investigate,” which category of the suggested materials would support this? If students identify three or four categories of materials that would apply to this strategy or all of the categories, ask them to mark all that they think would apply. Then ask them to highlight the one that would be most important, or faculty could ask students to rank their choices.

Online Options

Students could complete the assigned handouts out of class and then post their completed handouts for their classmates and instructor to review. Students could then compare their own responses with those of some other students as preparation for an in-class discussion.

Keeping it going

When students have had the opportunity to work with the handouts, develop a discussion with the following questions:

- What stood out for you as you worked with these handouts?



Slide 5



- What happened when you worked with the strategies and materials? What discoveries did you make?
- What were the differences between working with physical environments and social environments?
- What does this suggest to you about science learning in the preschool environment?



Slide 6

Taking it further

The preceding discussion might provide opportunities to explore what is meant by planning physical and social environments, intentional teaching, teachable moments, and the interplay between them. In a preschool social environment with a culture of inquiry, the teacher asks open-ended questions to encourage children to think and talk with each other. If the discussion does not surface these concepts and students are not familiar with these terms, faculty could follow up on the discussion in the “Keeping it going” segment to introduce these concepts. In either case, there is a description of intentional teaching as one of the overarching guiding principles for all the frameworks, on page 7 of the *California Preschool Curriculum Framework, Volume 3* that could be used to support this discussion. “Teachable Moments” and “Planning Learning Opportunities” are addressed briefly on page 11. Students will develop a better understanding of these last two terms as they encounter them within the domains.

Reflection

Conclude this key topic by asking students to reflect on their experience of this key topic by responding to the following questions:



Slide 7

- What did you learn about the materials that are recommended in the publication “Appendix: Suggested Materials?”
- Where were there struggles in this learning experience?
- How does this make you feel about planning science curriculum for young children?
- What will you do with this information?



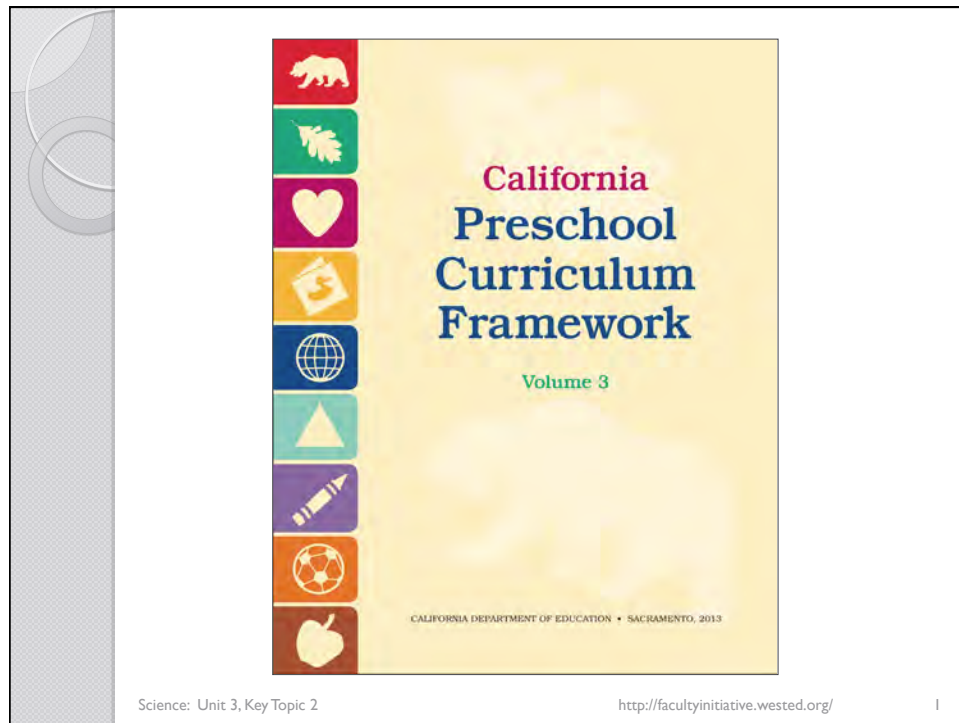
Environments and Materials: The Physical Environment Relating Suggested Strategies to Suggested Materials				
Suggested Materials → Strategies for Planning the Physical Environment ↓	Scientific tools	Open-ended objects and materials	Living things	Books
Be thoughtful about what objects and materials to include in environment.				
Provide a variety of natural materials to observe and investigate.				
Include objects and materials that allow for creativity and open-ended investigation.				
Include living things in the preschool environment.				
Include scientific tools for observation, measurement, and documentation.				
Make scientific tools available throughout the preschool environment.				
Consider adaptations in scientific tools and materials for children with special needs.				
Use technology to support children's scientific experiences.				
Present documentation of science-related experiences in the preschool environment.				
Include children's books with science-related content.				



Environments and Materials: The Physical Environment Relating Suggested Strategies to Suggested Materials				
Suggested Materials → Strategies for Planning the Physical Environment ↓	Scientific tools	Open-ended objects and materials	Living things	Books
Use the outdoors for natural explorations and investigations.				
Organize the space in ways that promote children's explorations. • Space. • Flexibility. • Accessibility. • Social interactions.				
Always be aware of children's safety.				



Environments and Materials: The Social Environment Relating Suggested Strategies to Suggested Materials				
Suggested Materials → Strategies for Planning the Social Environment ↓	Scientific tools	Open-ended objects and materials	Living things	Books
Foster children's curiosity and questioning.				
Guide children in exploring their questions.				
Be an active observer.				
Talk with children and engage them in conversations.				
Model the use of scientific vocabulary.				
Know when to intervene and when to stand back.				
Provide children with time.				



Environments and Materials for Science



In California Preschool Curriculum Framework, Volume 3, read:

- Pages 142–150 of the science domain.
- Appendix on pages 234–236, “Suggested Materials.”

Science: Unit 3, Key Topic 2

<http://facultyinitiative.wested.org/>

2

Environments and Materials for Science

Unit 3, Key Topic 2, Handout 1



Environments and Materials: The Physical Environment Relating Suggested Strategies to Suggested Materials				
Suggested Materials → Strategies for Planning the Physical Environment ↓	Scientific tools	Open-ended objects and materials	Living things	Books
Be thoughtful about what objects and materials to include in environment.				
Provide a variety of natural materials to observe and investigate.				
Include objects and materials that allow for creativity and open-ended investigation.				
Include living things in the preschool environment.				
Include scientific tools for observation, measurement, and documentation.				

Science: Unit 3, Key Topic 2

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3

Environments and Materials for Science

Unit 3, Key Topic 2, Handout 2



Environments and Materials: The Social Environment Relating Suggested Strategies to Suggested Materials				
Suggested Materials → Strategies for Planning the Social Environment ↓	Scientific tools	Open-ended objects and materials	Living things	Books
Foster children's curiosity and questioning.				
Guide children in exploring their questions.				
Be an active observer.				
Talk with children and engage them in conversations.				

Science: Unit 3, Key Topic 2

<http://facultyinitiative.wested.org/>

4

Environments and Materials for Science

- What stood out for you as you worked with these handouts?
- What happened when you worked with the strategies and materials? What discoveries did you make?
- What were the differences between working with physical environments and social environments?
- What does this suggest to you about science learning in the preschool environment?

Science: Unit 3, Key Topic 2

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5

Environments and Materials for Science

- Planning physical and social environments
- Intentional teaching
- Teachable moments



Science: Unit 3, Key Topic 2

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6



- What did you learn about the materials that are recommended in the publication “Appendix: Suggested Materials?”
- Where were there struggles in this learning experience?
- How does this make you feel about planning science curriculum for young children?
- What will you do with this information?



Unit 3 – Science:

Key Topic 3: Getting to Know Interactions and Strategies that Support Science

Focus Statement

Students become familiar with the interactions and strategies in the four strands of the science domain by reviewing vignettes in the strands and discussing where and how the interactions and strategies were or could be used.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project's (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Notetaking outline or guide
- Pairs or small groups
- Reflective discussion
- Short paper or report

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division's *California Early Childhood Educator Competencies*. The "Competency Areas to Consider" below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.



- Child Development and Learning
- Relationships, Interactions, and Guidance
- Learning Environments and Curriculum
- Professionalism



Unit 3 – Science:

Key Topic 3: Getting to Know Interactions and Strategies that Support Science

Before You Start

This key topic focuses on the interactions and strategies that are recommended in the science domain as ways to support children’s science learning in the early childhood setting. This is a segment of the curriculum framework that is available in every domain. Interactions and strategies are presented in connection with vignettes, teachable moments, and planned opportunities. Each vignette provides an opportunity to explore interactions and opportunities for a particular substrand. Each strand of the domain is then followed by a “Bringing It All Together” section, which integrates teaching from several of the substrands.

It is helpful if students review the organization of the science domain so that they can become familiar with the content of this domain and with how these recommendations are presented. One way to do this is presented in Unit 3, Key Topic 1 of this instructional guide.

The location of interactions and strategies in the *California Preschool Curriculum Framework, Volume 3* can vary from strand to strand in this domain, so it will support students in their work if they have a chance to review the domain before they begin this key topic.

This key topic is accompanied by Handout 1 that can be used in several ways. The handout lists all the interactions and strategies for each strand and substrand. It is designed so that students can review vignettes and look for those interactions and strategies in each substrand and consider which might be missing. There are several ways to work with these handouts.

1. Students can use Handout 1 for a complete strand and use the “Bringing It All Together” vignette at the end of the strand in the *California Preschool Curriculum Framework, Volume 3*. The active learning in this key topic is designed for this approach.
2. Students can use Handout 1 to work with a particular substrand and work with the vignettes in that substrand.
3. Students can use the interactions and strategies for the Scientific Inquiry strand and apply them to vignettes or “Bringing It All Together” vignette for each of the other strands.



As you go through these interactions and strategies, remind students to keep in mind that children of different ages might respond differently to different interactions and strategies and that different family and community experiences with science will manifest in young children's responses. This is discussed in the introduction to the domain on page 139 as one of the guiding principles of the domain relating to what is developmentally appropriate for different children.

Faculty will need a copy of Handout 1 for this key topic for each student as well as access to the science domain chapter in the *California Preschool Curriculum Framework, Volume 3* in either a hard or electronic copy. A Portable Document Format (PDF) version of the curriculum framework can be downloaded from the California Department of Education Web site at <http://www.cde.ca.gov/sp/cd/re/psframework.asp>. An electronic version of the handout will be available when this instructional guide is online at <http://facultyinitiative.wested.org/>.

Information Delivery



Slides 2-5

Students will need to be familiar with the content and organization of the science domain to do this work. It will be helpful if they review the domain before coming to class. This entire domain covers pages 135–246. Another way is for all students to read the introduction to the domain on pages 135–152 and then read through whichever strand they are assigned. The introduction includes a summary of the domain and its strands on pages 151–152 that would be helpful for students as they work through Handout 1 included with this key topic.

In any case, students will need to be familiar with the organization and elements of the domain. This can be done by having students do the learning experience in Unit 3, Key Topic 1, Subtopic 2 of this instructional guide relating to the organization of the domain. Again, another way to provide familiarity is to have students do the subtopic in Key Topic 1 but only as it relates to the strand to which they are assigned. Students will become familiar with other strands as each of these strands is presented for discussion.

Active Learning

Getting it started

Let students know that they will be working with the “Interactions and Strategies” presented in the science domain. Organize students into pairs or groups of three or four. Assign a strand to each group. The number of interactions and strategies are not the same for each strand, but the differences are not likely to create challenges. The Scientific Inquiry strand, however, might work better if the two substrands are given separately to student groups. Additionally, the first substrand could be further subdivided. Provide students in the



Slide 6

group with the appropriate section of Handout 1 for the strand or substrand with which they will work.

Ask students to review the interactions and strategies that they will be using. Ask them to find the strand they will be working with, and then ask them to look at the section for their strand called “Bringing It All Together.” These are all listed in the table of contents of the *California Preschool Curriculum Framework, Volume 3*. For each strand in this section there is a vignette that demonstrates the use of some of the interactions and strategies recommended in that strand. Students are to use Handout 1 and respond to the following questions:



Slide 7

- What interactions and strategies are represented in the vignette?
- If some interactions and strategies are not represented, how could they be? (For this second question, some of the questions for reflection at the end of each strand in the *California Preschool Curriculum Framework, Volume 3* might provide some prompts.)

Keeping it going

After students have had some time to explore the interactions and strategies in their vignette, reconvene the class as a whole group.

- Ask each group to share some examples of interactions and strategies that were represented in their vignette and to describe how they appeared in the vignette.
- Then ask students for some examples of interactions and strategies that were not represented in their vignette and how they thought the teacher could have included them.
- While they were working with these vignettes, did other activities come to mind where these interactions and strategies could be used?

Online Options

Students could summarize the interactions and strategies they found in their vignettes, interactions and strategies not seen in the vignettes that teachers might have used, and other activities where the interactions and strategies could be used. These summaries could be posted online, and students could review their classmates' work. Faculty could then facilitate an in-class discussion or an online discussion if that feature, such as a chat room, is available.



Taking it further

After working with their strand, students can be asked to work with one or both of the substrands of the Scientific Inquiry strand. Any students who had worked with one or both of these substrands could join the groups that worked on the other three strands, distributing themselves as equally as possible among the other groups. Ask students to look for the interaction and strategies in the vignette for their substrand.

After they have had a chance to do this, ask them to discuss these questions:



Slide 8

- What did you find?
- What does this tell you about the interactions and strategies for the Scientific Inquiry strand? What are some examples of where you could see these interactions and strategies at work?

Another approach

Faculty could also develop this learning experience using substrands as the focus rather than strands and use vignettes in the substrands for exploration by students.

Reflection

Direct students' attention to the "Questions for Reflection" at the end of each strand. These provide some opportunities to consider expanding and integrating science curriculum across all domains of early learning and development.

The following questions can be used for students to reflect on their experiences with this key topic:



Slide 9

- What was new and surprising to you?
- Where did you struggle and how did you overcome that?
- What did you learn about interactions and strategies that can be used for science curriculum?
- What would you like to learn more about? How can you pursue that?

Deeper Understanding

There are descriptions of "Planning Learning Opportunities" and "Teachable Moments" in the introduction to the *California Preschool Curriculum Framework, Volume 3* on page 11 in the left column.



Slide 10

Ask students to write a brief paragraph on each and a paragraph discussing the differences between them and why they are both important for teachers to use with young children.



Science Domain:
Key Topic 3
Handout 1 – Getting to Know Interactions and Strategies
and Vignettes of the Science Domain

Strand: Scientific Inquiry			
Substrands and subcategories of substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
1.0 Observation and Investigation			
<i>Observe and Describe</i>	Facilitate children’s observation skills.		
	Introduce children to the process of observing.		
	Introduce the term “observe” to children.		
	Encourage children to describe their observations.		
	Invite children to observe objects and phenomena related to the current focus of inquiry.		
	Invite children to record their observations.		
<i>Use Scientific Tools</i>	Promote the use of scientific tools to extend children’s observations and investigation of objects.		
	Introduce children to scientific tools and their function.		



Strand: Scientific Inquiry – Continued			
Substrands and subcategories of substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
1.0 Observation and Investigation – Continued			
<i>Use Scientific Tools – Continued</i>	Suggest language to introduce magnifiers to children.		
	Support children in using the tools.		
<i>Measure</i>			
<i>Sort, Classify, and Identify Patterns</i>	Facilitate children’s abilities to sort, classify, and identify patterns.		
<i>Compare and Contrast</i>	Ask questions and model comparative language to introduce the idea of comparing.		
	Invite children to compare and contrast objects and phenomena related to their current focus of inquiry.		
<i>Predict and Check</i>	Encourage children to make predictions.		
	Introduce children to the idea of predicting.		



Strand: Scientific Inquiry – Continued			
Substrands and subcategories of substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
1.0 Observation and Investigation – Continued			
<i>Predict and Check – Continued</i>	Encourage children to first <i>predict</i> and then <i>check</i> .		
	Elicit children’s predictions by asking questions.		
	Remind children that predictions do not have to be right.		
	Record children ‘s predictions.		
<i>Draw Inferences and Conclusions</i>	Facilitate children’s ability to make inferences and draw conclusions.		
	Use everyday observations to model inferring.		
	Encourage children to explain the reasoning behind their inferences.		



Strand: Scientific Inquiry – Continued			
Substrands and subcategories of substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
2.0 Documentation and Communication			
<i>Record and Document</i>	Encourage children to record observations and document investigations and findings.		
	Introduce children to the idea of recording.		
	Promote the use of different forms to record and document information.		
	Consider adaptations for children with special needs.		
	Encourage children to describe their representations while you write their words.		
	Encourage different means of communication.		
	Invite children to record collaboratively, using charts, graphs, or models.		



Strand: Scientific Inquiry – Continued			
Substrands and subcategories of substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
2.0 Documentation and Communication – Continued			
Communicate	Ask open-ended questions: • Questions to encourage children to share their observations • Questions to facilitate children’s problem-solving and investigation • Questions to elicit children’s predictions and explanations		
	Engage children in collaborative discussions.		



Strand: Physical Sciences			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
1.0 Properties and Characteristics of Nonliving Objects and Materials			
	Provide children with opportunities to explore a variety of objects and materials in the daily environment.		
	Prepare yourself and be purposeful about the scientific concepts children will investigate while engaged with objects and materials.		
	Engage children in projects that allow them to explore, experiment, and invent with objects and materials for an extended period of time.		
	Experiment with materials and objects before offering them to children.		
	Invite children to observe and describe the characteristics and physical properties of the objects and materials they investigate.		
	Plan opportunities for children to sort and classify objects and materials and reflect on similarities and differences.		



Strand: Physical Sciences – Continued			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
1.0 Properties and Characteristics of Nonliving Objects and Materials – Continued			
	Provide children with opportunities to build and experiment with simple machines.		
	Provide children with opportunities to investigate the form and function of different tools and machines.		
2.0 Changes in Nonliving Objects and Materials			
<i>Changes in Objects and Materials</i>			
<i>Movement of Objects</i>	Avoid presenting children with activities of “magical” science.		
	Select activities or projects in which children can vary their actions on objects and observe the immediate reactions to their actions.		
	Use cooking activities as opportunities to reason about transformations in materials.		



Strand: Physical Sciences – Continued			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
2.0 Changes in Nonliving Objects and Materials – Continued			
<i>Movement of Objects – Continued</i>	Invite children to set up an experiment and collect and analyze data.		
	Focus children’s attention on the effect of one aspect (variable) at a time.		
	Lead children to make predictions about what they expect to happen.		
	Ask questions to raise children’s awareness of how they produced an effect.		
	Encourage children to record and document investigations with objects and materials.		



Strand: Life Sciences			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
1.0 Properties and Characteristics of Living Things			
	Focus children’s explorations on key concepts of living things.		
	Take children on outdoor explorations of plants and animals. • Model curiosity and interest in nature. • Remind children to be respectful of nature. • Engage children in conversations about what they notice and point their attention to important aspects of living things. • Document children’s outdoor explorations.		
	Provide children with tools for explorations of living things.		
	Include plants and animals indoors.		



Strand: Life Sciences – Continued			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
1.0 Properties and Characteristics of Living Things – Continued			
	Engage children in close observations of living things. • <i>Close observations of animals.</i> • <i>Close observations of plants.</i> • <i>Explorations of fruits and vegetables.</i>		
	Invite children to share in-home experiences with living things.		
	Use books to enrich and extend children’s study of living things.		
2.0 Changes in Living Things			
	Provide children with opportunities to care for plants and animals.		



Strand: Life Sciences – Continued			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
2.0 Changes in Living Things – Continued			
	Provide children with opportunities to observe and monitor plants’ growth and development. • <i>Provide children with a variety of planting experiences.</i> • <i>Invite children to experiment and test what plants need in order to live.</i> • <i>Invite children to predict what plants will look like as they grow.</i> • <i>Encourage children to notice changes in their plants’ growth.</i> • <i>Invite children to measure the growth of plants.</i> • <i>Invite children to record the growth of plants.</i> • <i>Engage children in reflective conversations in small or large groups.</i> • <i>Involve families in children’s planting and gardening experiences.</i>		



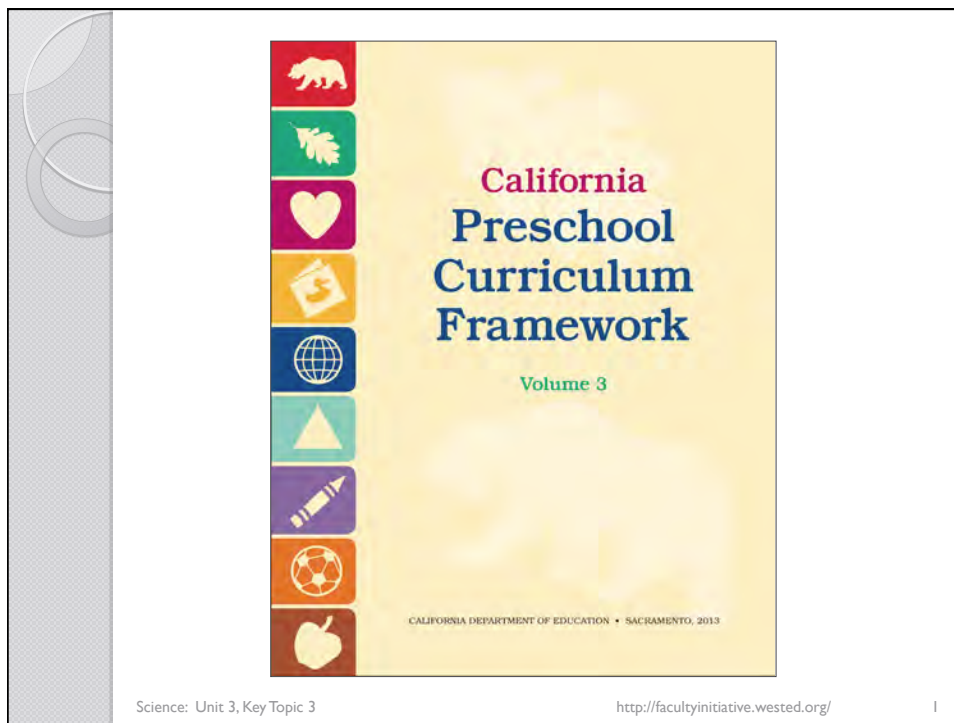
Strand: Life Sciences – Continued			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
2.0 Changes in Living Things – Continued			
	Provide children with opportunities to observe changes and transformations in animals passing through stages of the life cycle. • <i>Invite children to predict changes and closely observe animals passing through different stages of a life cycle.</i> • <i>Invite children to record and document their observations of changing animals.</i> • <i>Encourage children to compare life cycles of different animals.</i>		
	Discuss the death of living things.		
	Invite children to investigate their own growth.		



Strand: Earth Sciences			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
1.0 Properties and Characteristics of Earth Materials and Objects			
	Take children on a search for earth materials in nature.		
	Invite children to observe, compare, and classify earth materials.		
	Invite children to explore and experiment with earth materials.		
	Use opportunities to explore earth materials in the context of studying living things or when exploring other solid and nonsolid materials.		
	Invite children to share in-home experiences with earth materials.		
2.0 Changes in the Earth			
	Engage children in observing and describing the sun and the moon and other natural objects in the sky.		



Strand: Earth Sciences – Continued			
Substrands	Interactions and Strategies	Included in “Bringing It All Together” vignette(s)?	If not, how could it be included?
2.0 Changes in the Earth – Continued			
	Provide children with opportunities to observe, record, and discuss the weather. • <i>Develop an awareness of the daily weather.</i> • <i>Invite children to record and discuss changes in the weather.</i> • <i>Invite children to observe and discuss the effects of weather and seasonal changes on their life and the environment around them.</i> • <i>Engage families in children’s explorations of weather and seasonal changes.</i>		
<i>Preserving the Environment</i>	Model and discuss respect for the environment.		
	Engage children in caring for and protecting the environment through everyday routine in the preschool environment.		
	Collect and use recycled materials.		



Science

Scientific Inquiry

The foundations focus on the skills and language used in the process of scientific inquiry.

Substrand 1.0

Observation and Investigation

Substrand 2.0

Documentation and Communication

Science

Physical Sciences

The foundations are about investigating characteristics and physical properties of nonliving objects and of solid and liquid materials, and changes in objects and materials.

Substrand 1.0

Properties and Characteristics of Nonliving Objects and Materials

Substrand 2.0

Changes in Nonliving Objects and Materials

Science: Unit 3, Key Topic 3

<http://facultyinitiative.wested.org/>

3

Science

Life Sciences

The foundations are about core concepts related to properties and characteristics of living things and their growth and change over time.

Substrand 1.0

Properties and Characteristics of Living Things

Substrand 2.0

Changes in Living Things

Science: Unit 3, Key Topic 3

<http://facultyinitiative.wested.org/>

4

Science

Earth Sciences

The foundations are about observing and exploring earth materials and phenomena.

Substrand 1.0

Properties and Characteristics of Earth Materials and Objects

Substrand 2.0

Changes in the Earth

Science: Unit 3, Key Topic 3

<http://facultyinitiative.wested.org/>

5

Science

Strand: Scientific Inquiry

Substrands and subcategories of substrands	Interactions and Strategies	Included in "Bringing It All Together" vignette(s)?	If not, how could it be included?
1.0 Observation and Investigation			
<i>Observe and Describe</i>	Facilitate children's observation skills.		
	Introduce children to the process of observing.		
	Introduce the term "observe" to children.		
	Encourage children to describe their observations.		
	Invite children to observe objects and phenomena related to the current focus of inquiry.		
	Invite children to record their observations.		

Science: Unit 3, Key Topic 3

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6

Science



Interactions and Strategies

- What interactions and strategies are represented in the vignette?
- If some interactions and strategies are not represented, how could they be?

Science: Unit 3, Key Topic 3

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7

Science

Interactions and Strategies

- What did you find?
- What does this tell you about the interactions and strategies for the Scientific Inquiry strand?
- What are some examples of where you could see these interactions and strategies at work?

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- What was new and surprising to you?
- Where did you struggle and how did you overcome that?
- What did you learn about interactions and strategies that can be used for science curriculum?
- What would you like to learn more about? How can you pursue that?

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Science

- Read “Planning Learning Opportunities” and “Teachable Moments” in the introduction to the *California Preschool Curriculum Framework, Volume 3*, page 11.
- Write a brief paragraph on each topic
- Discuss the differences between them and why they are both important for teachers to use with young children.

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Unit 3: Science:

Key Topic 4: Universal Design, Individualizing, and Family Partnerships

Focus Statement

Students explore the concepts of universal design for learning, individualization, and partnerships with families as part of curriculum planning to support children's learning in the sciences.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project's (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Child, Family, and Community
- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Health, Safety, and Nutrition
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Class presentation
- Creation of a visual representation
- Development of resource tool
- Lecture
- Pairs or small groups
- Panel/guest speaker
- Peer review and feedback
- Reflective discussion



- Role playing
- Short paper or report

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division's *California Early Childhood Educator Competencies*. The "Competency Areas to Consider" below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Culture, Diversity, and Equity
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Dual-Language Development
- Observation, Screening, Assessment, and Documentation
- Special Needs and Inclusion
- Learning Environments and Curriculum
- Health, Safety, Nutrition
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision



Unit 3: Science

Key Topic 4: Universal Design, Individualizing, and Family Partnerships

Before You Start

This key topic prompts students to consider the importance of ensuring that all children have access to the materials and classroom experiences that support their learning of science concepts and skills. Universal design for learning, individualization, and partnering with families are ways that teachers can support this access.

By examining and reflecting on these three areas, students—as teachers—can address the many diverse characteristics that children bring to the preschool classroom such as their unique temperaments, interests, and abilities; cultural and linguistic backgrounds; family beliefs, values, and structures; socioeconomic backgrounds; and neighborhood and community environments, opportunities, and resources. Partnering with families is one way to learn about these characteristics. Practicing principles and strategies of universal design for learning and individualization is a way to plan curriculum that helps all children learn.

Universal design for learning, individualization, and partnering with families are each presented as a separate subtopic. The following considerations are provided for some of the active learning experiences in each one:

Subtopic 1: Universal Design. There are two suggested options for the learning experience for this first subtopic. The first approach is to ask students to prepare a presentation on the concept of universal design for learning after reviewing and discussing concepts and examples in the science domain of the *California Preschool Curriculum, Volume 3*. If this approach is used, faculty may wish to spread this learning experience over a few class sessions so that students have time to prepare their presentations.

The second approach to this subtopic is to invite guest speakers to share how they use universal design for learning in their programs. Suggestions for presenters include early childhood special education teachers, speech and language therapists, occupational therapists, assistive technology specialists, preschool teachers with experience in including children with disabilities in their classes, and parents or other family members of children with disabilities or special needs.

Subtopic 2: Individualization. In this subtopic, students are assigned a number of interactions and strategies to review for examples of individualization. It may be helpful to use the table in the “Information Delivery” section of this key topic that summarizes the



number of interactions and strategies by substrand in deciding the number of interactions and strategies per student. Handout 1 is also provided with this key topic that lists the interactions and strategies by strand and substrand for the science domain. An electronic version of this handout will be available when this instructional guide is online at <http://facultyinitiative.wested.org/>.

This subtopic can also be made richer by asking students to address characteristics of children and families in their community. For example, there may be a significant number of families who regularly and/or fairly frequently relocate their residences such as families who are (1) engaged in seasonal work, (2) in the military, or (3) homeless or without permanent and adequate housing. There may be some strategies for individualizing that are very important to ensure that children in these families have opportunities for learning science concepts and skills.

Subtopic 3: Family Partnerships. Two approaches are suggested for the active learning in this subtopic. The first approach has students role-playing ways that teachers can present some of the family engagement suggestions to families. If this approach is used, class time will need to be provided for the presentations and short discussions. With the second approach, students write summaries of how they would present the suggestions to families.

Note: The suggestions in subtopic 1 and subtopic 2 are for children who may need additional supports when planning intentional teaching strategies or materials, whether or not they have an Individualized Education Program (IEP). For any child with an IEP, the design and use of adaptations should be done in collaboration with the early childhood special educator or therapist working with the child and family. Consultation with the family and these specialists is especially important for children who may have more significant physical, sensory, and/or medical conditions.

The same active learning segments for these three subtopics are used in Key Topic 4 of the history–social science domain. Slight modifications are made to reflect the specific content of each domain. This similarity across the two domains is done to allow instructors to use each key topic individually in the domain or to merge the subtopics across both domains.

Information Delivery



Slides 2–4

Background information on the diversity of California’s preschool children and families, universal design for learning, and partnering with families can provide an introduction to this key topic. Faculty could choose to provide summary lectures or ask students to read the following material in the *California Preschool Curriculum Framework, Volume 3*:

- California’s Preschool Children (pp. 3–5)



- Overarching principle: “Family and community partnerships create meaningful connections” (pp. 7–8)
- Overarching principle: “Individualization of learning includes all children” (p. 8)
- Overarching principle: “Responsiveness to culture and language supports children’s learning” (pp. 8–9)
- Universal Design for Learning (p. 14)
- “Partnering with families in curriculum planning” (p. 35)



Slide 5-8

For 2014 data of the diverse population of children and families in California, refer to the most recent California Children’s Report Card, which can be accessed at

http://www.childrennow.org/uploads/documents/2014_CA_Childrens_Report_Card.pdf.

Strands and Substrands	Interactions and Strategies
<i>Strand: Scientific Inquiry</i>	31
1.0 Observation and Investigation	22
2.0 Documentation and Communication	9
<i>Strand: Physical Sciences</i>	16
1.0 Properties and Characteristics of Nonliving Objects and Materials	8
2.0 Changes in Nonliving Objects and Materials	8
<i>Strand: Life Sciences</i>	12
1.0 Properties and Characteristics of Living Things	7
2.0 Changes in Living Things	5
<i>Strand: Earth Sciences</i>	10
1.0 Properties and Characteristics of Living Things	5
2.0 Changes in the Earth	5



Active Learning

Subtopic 1: Universal Design for Learning

Getting it started

The extent to which students are familiar with the concept of universal design for learning will impact how the instructor chooses to begin this subtopic. If students have experience with this concept, a review of the section on “Universal Design for Learning” on page 14 of the *California Preschool Curriculum Framework, Volume 3* may not be needed. If the concept is new or less familiar to most students, it will be helpful for students to read and discuss the section.



Slide 9



Slide 10

The *California Preschool Curriculum Framework, Volume 3* includes some examples of the three practices of universal design for learning: multiple means of representation, multiple means of expression, and multiple means of engagement. Ask students to consider the following examples from the curriculum framework and decide if each example demonstrates representation, expression, or engagement:



Slides 11-12

- A teacher might need to hold a hand lens steady for a child. (*California Preschool Curriculum Framework, Volume 3*, p. 159)
- Children can record their observations with drawings, verbal or sign language dictations, or with communication devices. (*California Preschool Curriculum Framework, Volume 3*, pp. 168, 169)
- Provide accommodations for children with physical disabilities to explore a variety of objects and materials in their environments. (*California Preschool Curriculum Framework, Volume 3*, p.180)
- Children can be encouraged to observe changes in plants’ growth and “communicate their observations and ideas verbally or by drawing, pointing, or acting with their bodies.” (*California Preschool Curriculum Framework, Volume 3*, p. 208)
- When searching for earth materials in nature, there should be consideration “made for children with special needs through assistance by teachers or peers or adaptation of materials so they are able to fully participate and make observations.” (*California Preschool Curriculum Framework, Volume 3*, p. 218)



Slide 13

Keeping it going

Ask students to form pairs or small groups and to choose a vignette. These vignettes are all from the “Bringing it All Together” sections of the strands in the science domain in the *California Preschool Curriculum Framework, Volume 3*. Instructors may wish to assign vignettes to the groups so that a vignette from each strand is discussed. The vignettes can be found in the following pages:

- Scientific Inquiry: pages 172–173
- Physical Sciences: page 193
- Life Sciences: page 212
- Earth Sciences: page 227

Explain to students that their task is to review their vignette and (1) identify any elements of universal design for learning that the teacher used and (2) think of other ways that universal design could be incorporated.

Online Options

Subtopic 1: Students can list their examples of universal design for learning in a document to be shared online and made available for the instructor and their classmates to review. The presentations could be limited to a visual representation that students could also share online (e.g., a short paper, photograph of a poster, PDF of a PowerPoint).

Taking it further

After students have identified different examples of multiple means of representation, expression, and engagement for their vignette, ask them to develop a presentation of the vignette and their ideas. The presentations can take any form the students choose. Examples could include role playing, creating a poster or PowerPoint, facilitating a discussion, or writing a short report. Encourage students to be creative and present the information in a way that is interesting and meaningful to them.

Putting it together

Provide time for the groups to share their presentations with the rest of the class. As each group presents, ask the other students to note two strengths of the presentation and one recommendation for improving it. These are to be given to the presenters for their review.

Conclude this subtopic by having a discussion on the following questions:



Slides 14-15

- What images, words, or phrases are going through your head?
- What did you find easy in identifying examples of universal design for learning in your vignette and including examples in your presentation? What was more challenging?
- What are some insights about universal design for learning that you learned from preparing your presentation? From your classmates' presentations?
- Where do you need more practice or support in applying universal design for learning in science? How could you obtain these?

Another approach

In the *Instructional Guide for the California Preschool Curriculum Framework, Volumes 1 and 2*, another approach to the subtopic Universal Design for Learning is to have a guest speaker or panel discuss the application of the universal design for learning concepts in preschool programs. The details for having a speaker or panel are from the subtopic in the instructional guides for the first two volumes of the curriculum framework and are summarized here for reference.

Explain to students that a guest speaker or panelists will be discussing considerations when planning for children with disabilities or special needs and explaining how universal design for learning is applied in curriculum planning. This presentation is not intended as an in-depth exploration but as an introduction to some of the ways in which curriculum can be adapted to meet the needs of all children, including children with disabilities or special needs.

It would be helpful to provide the presenters with the segment on "Universal Design for Learning" from page 14 of the *California Preschool Curriculum Framework, Volume 3*. Ask them to address the importance of including children with special needs in all activities and learning experiences related to science and to share examples of the three aspects of universal design for learning: multiple means of representation, multiple means of engagement, and multiple means of expression. If the students are not familiar with special education, ask the presenters to also provide a brief overview: referral, assessment, and Individualized Educational Program (IEP) process; service provision; and ways that the special education specialists and parents can partner with the preschool program teachers in planning and/or providing the adaptations for a child with a disability or special need.



Faculty may choose to have the class prepare some questions for the presenters or allow students to spontaneously ask questions during the presentation. Ask students to listen for examples of the three aspects of universal design for learning approaches that support all children's participation in science learning experiences.

After the speakers have left, provide time for the class to reflect on the presentation through individual responses to or a class discussion on the following questions:



Slides 16-17

- What information from the presenter(s) caught your attention or stood out for you?
- What ideas or strategies seemed familiar? Which ones were new?
- What are some key messages or different perspectives that you are taking away from this presentation?
- What supports do you need to more fully implement the universal design for learning concepts to ensure that all children in your program have access to the science curriculum? What are some steps you can take to obtain these supports?

Subtopic 2: Individualization

Getting it started

California's children and families are very diverse in many ways. The section on "California's Preschool Children" on pages 3–5 of the *California Preschool Curriculum Framework, Volume 3* describes some aspects of this diversity. Ask students to review this section and facilitate a class discussion on the key points. Also encourage any students who have experience in early care and education programs to share some of the characteristics of the children and families in their programs. Remind students to use general terms and not identify any specific child or parent.

Online Options

Subtopic 2: If the class has online-discussion capability, faculty could facilitate a discussion on the diverse characteristics of children and families.

Include in the discussion a review of the sixth overarching principle, "Individualization of learning includes all children," which is found on page 8 of the *California Preschool Curriculum Framework, Volume 3*.



Slide 18



Slide 19

Ask students to provide examples of each of the characteristics listed in this principle: “. . . temperament, family and cultural experiences, language experiences, personal strengths, interests, abilities, and dispositions” Instructors may also include additional characteristics of the children and families in their community. It will help students in the next subtopic about partnering with families if these examples are recorded either by the students or by the instructor in a way that will make them available to students.

Keeping it going

Assign each student a set of interactions and strategies. The handout accompanying this key topic provides a list of interactions and strategies by strand and substrand. This may be helpful in assigning the interactions and strategies. The number of interactions and strategies per student will depend on the class size and could be done by strand or by substrand.

Online Options

Subtopic 2: Students could post online their examples of individualization for their assigned interactions and strategies for the instructor and their peers to review.

Ask students to individually review their assigned interactions and strategies in the text and look for examples of individualization in that strategy. If none appear to be part of the strategy, students are to think of one example of how they can individualize that strategy.

Taking it further

After students have completed their individual review, ask them to share and discuss their strategies and individualization examples with another student. What similarities or themes did they notice?

Online Options

Subtopic 2: If there is online-discussion capability, faculty could facilitate a discussion on the examples posted by the students. The questions in the “Putting it together” section could be used as individual discussion threads.

Putting it together

Conclude this subtopic by convening the class for a reflective discussion. The following questions can be used as a guide:

- What did you notice when looking for examples of individualization in the interactions and strategies? What stood



Slide 20



out for you?

- What individualization strategies do you feel most confident in being able to use? Which ones might be more difficult?
- Which individualization practices seem the most critical to support children's learning in science?
- What are three new individualization practices that you will use in your teaching of science?



Slide 21

Subtopic 3: Family Partnerships

Getting it started

Ask students to read the fifth overarching principle “Family and community partnerships create meaningful connections” (*California Preschool Curriculum Framework, Volume 3*, pp. 7–8) and identify the key words and concepts that stand out for them. Next ask students to discuss what considerations regarding the diversity of families they should keep in mind when building partnerships with families. If students have not done Subtopic 2 of this key topic, it is suggested that they review the section “California’s Preschool Children” (pp. 3–5 of the *California Preschool Curriculum Framework, Volume 3*).



Slide 22

Keeping it going

Ask the class to form small groups and explain that each group is to write a short description of a family that has at least one preschool-aged child who is in an early care and education program. Students may draw on their experiences with families but should be careful to not include any details that could identify a specific child or family. Instructors may wish to provide some guidance to the groups so that the families represent some of the diversity in their communities and portray some of the characteristics described in the *California Preschool Curriculum Framework, Volume 3*.

Taking it further

After the students have completed their descriptions, each group is to exchange its family story with another group. Provide time for each group to read the description and ask the author group for any

Online Options

Subtopic 3: Students could post their descriptions of their families online, and faculty could then assign a family to specific students. The option for writing a summary of how a strategy is shared with the family could be used instead of the role-playing presentations in class.



clarification.

Continue this subtopic by having students find and read the suggestions in the “Engaging Families” sections at the end of each strand in the science domain chapter of the *California Preschool Curriculum Framework, Volume 3*. It may be helpful to provide a brief overview of the organizational structure of the chapter domains if they are not already familiar with the structure. The “Engaging Families” sections are also listed in the table of contents for each strand.

Each group then chooses a suggestion and develops a short role-playing presentation that illustrates how to share that suggestion with their “family.” Faculty may choose to assign a strand to each group to ensure that a range of suggestions is selected.

Putting it together

The groups then do their role playing for the whole class. After each presentation, the group also shares any considerations and challenges they discussed while preparing their presentation. The other students can also ask questions, share observations, and contribute other ideas for using that suggestion with other families.

The following questions for individual or group reflection could be used to conclude this subtopic:



Slides 23-24

- What words or images caught your attention?
- What approaches would you feel comfortable using? Which topic or substrand areas do you feel more confident in discussing with families? What concerns do you have?
- What are some new insights that are emerging for you as you think about engaging families in supporting their children’s learning science concepts and skills?
- What will you do differently in your communications and interactions with families?

Another approach

Instead of role playing, students could write summaries of how they would present a suggestion to their family. This could be done as a group or individually.

Online Options

Subtopic 3: The option for writing a summary of how a strategy is shared with the family could be used instead of the role-playing presentations in class.



Reflection

This key topic has suggested reflection questions in the “Putting it Together” section for each subtopic. The following set of questions is more general and has been presented for other key topics in this instructional guide.



Slides 25-26

- What are some ideas, concepts, or strategies that you learned from this class session?
- Which ones reinforced what you have already learned or experienced? Which ones were new or caused you to think differently about teaching preschool children and/or engaging their families?
- Why do you think the content of this class session was presented the way it was? How did this approach help you understand the content? What else would have helped?
- How will you decide what to apply from this class session in your work with preschool children and/or their families? What will you do to ensure you will implement what you have decided to use?



Interactions and Strategies that Support the Science Domain



Science Domain:
Key Topic 4
Handout 1 – Interactions and Strategies that Support the Science Domain

Strand: Scientific Inquiry	
Substrand 1.0: Observation and Investigation	Substrand 2.0: Documentation and Communication
<i>Observe and Describe</i>	<i>Record and Document</i>
Facilitate children's observation skills.	Encourage children to record observations and document investigations and findings.
Introduce children to the process of observing.	Introduce children to the idea of recording.
Introduce the term "observe" to children.	Promote the use of different forms to record and document information.
Encourage children to describe their observations.	Consider adaptations for children with special needs.
Invite children to observe objects and phenomena related to the current focus of inquiry.	Encourage children to describe their representations while you write their words.
Invite children to record their observations.	Encourage different means of communication
	Invite children to record collaboratively, using charts, graphs, or models.
<i>Use Scientific Tools</i>	<i>Communicate</i>
Promote the use of scientific tools to extend children's observations and investigation of objects.	Ask open-ended questions: • <i>Questions to encourage children to share their observations</i> • <i>Questions to facilitate children's problem-solving and investigation</i> • <i>Questions to elicit children's predictions and explanations</i>
Introduce children to scientific tools and their function.	Engage children in collaborative discussions.
Suggest language to introduce magnifiers to children.	
Support children in using the tools.	



Strand: Scientific Inquiry	
Substrand 1.0: Observation and Investigation	Substrand 2.0: Documentation and Communication
Measure	
Sort, Classify, and Identify Patterns	
Facilitate children's abilities to sort, classify, and identify patterns.	
Compare and Contrast	
Ask questions and model comparative language to introduce the idea of comparing.	
Invite children to compare and contrast objects and phenomena related to their current focus of inquiry.	
Predict and Check	
Encourage children to make predictions.	
Introduce children to the idea of predicting.	
Encourage children to first <i>predict</i> and then <i>check</i> .	
Elicit children's predictions by asking questions.	
Remind children that predictions do not have to be right.	
Record children's predictions.	
Draw Inferences and Conclusions	
Facilitate children's ability to make inferences and draw conclusions.	
Use everyday observations to model inferring.	
Encourage children to explain the reasoning behind their inferences.	



Strand: Physical Sciences	
Substrand 1.0: Properties and Characteristics of Nonliving Objects and Materials	Substrand 2.0: Changes in Nonliving Objects and Materials
Provide children with opportunities to explore a variety of objects and materials in the daily environment.	<i>Changes in Objects and Materials</i>
Prepare yourself and be purposeful about the scientific concepts children will investigate while engaged with objects and materials.	<i>Movement of Objects</i>
Engage children in projects that allow them to explore, experiment, and invent with objects and materials for an extended period of time.	Avoid presenting children with activities of “magical” science.
Experiment with materials and objects before offering them to children.	Select activities or projects in which children can vary their actions on objects and observe the immediate reactions to their actions.
Invite children to observe and describe the characteristics and physical properties of the objects and materials they investigate.	Use cooking activities as opportunities to reason about transformations in materials.
Plan opportunities for children to sort and classify objects and materials and reflect on similarities and differences.	Invite children to set up an experiment and collect and analyze data.
Provide children with opportunities to build and experiment with simple machines.	Focus children’s attention on the effect of one aspect (variable) at a time.
Provide children with opportunities to investigate the form and function of different tools and machines.	Lead children to make predictions about what they expect to happen.
	Ask questions to raise children’s awareness of how they produced an effect.
	Encourage children to record and document investigations with objects and materials.



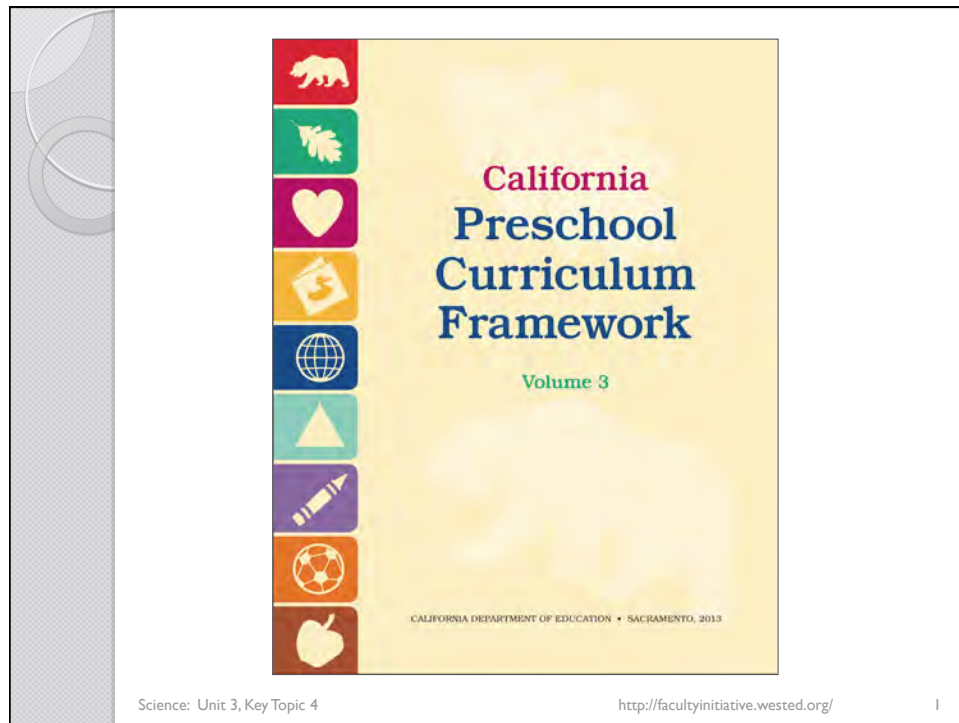
Strand: Life Sciences	
Substrand 1.0: Properties and Characteristics of Living Things	Substrand 2.0: Changes in Living Things
Focus children's explorations on key concepts of living things.	Provide children with opportunities to care for plants and animals.
Take children on outdoor explorations of plants and animals. • Model curiosity and interest in nature. • Remind children to be respectful of nature. • Engage children in conversations about what they notice and point their attention to important aspects of living things. • Document children's outdoor explorations.	Provide children with opportunities to observe and monitor plants' growth and development. • <i>Provide children with a variety of planting experiences.</i> • <i>Invite children to experiment and test what plants need in order to live.</i> • <i>Invite children to predict what plants will look like as they grow.</i> • <i>Encourage children to notice changes in their plants' growth.</i> • <i>Invite children to measure the growth of plants.</i> • <i>Invite children to record the growth of plants.</i> • <i>Engage children in reflective conversations in small or large groups.</i> • <i>Involve families in children's planting and gardening experiences.</i>
Provide children with tools for explorations of living things.	Provide children with opportunities to observe changes and transformations in animals passing through stages of the life cycle. • <i>Invite children to predict changes and closely observe animals passing through different stages of a life cycle.</i> • <i>Invite children to record and document their observations of changing animals.</i> • <i>Encourage children to compare life cycles of different animals.</i>
Include plants and animals indoors.	Discuss the death of living things.



Strand: Life Sciences	
Substrand 1.0: Properties and Characteristics of Living Things	Substrand 2.0: Changes in Living Things
Engage children in close observations of living things. • <i>Close observations of animals.</i> • <i>Close observations of plants.</i> • <i>Explorations of fruits and vegetables.</i>	Invite children to investigate their own growth.
Invite children to share in-home experiences with living things.	
Use books to enrich and extend children's study of living things.	



Strand: Earth Sciences	
Substrand 1.0: Properties and Characteristics of Earth Materials and Objects	Substrand 2.0: Changes in the Earth
Take children on a search for earth materials in nature.	Engage children in observing and describing the sun and the moon and other natural objects in the sky.
Invite children to observe, compare, and classify earth materials.	Provide children with opportunities to observe, record, and discuss the weather. • <i>Develop an awareness of the daily weather.</i> • <i>Invite children to record and discuss changes in the weather.</i> • <i>Invite children to observe and discuss the effects of weather and seasonal changes on their life and the environment around them.</i> • <i>Engage families in children's explorations of weather and seasonal changes.</i>
Invite children to explore and experiment with earth materials.	<i>Preserving the Environment</i>
Use opportunities to explore earth materials in the context of studying living things or when exploring other solid and nonsolid materials.	Model and discuss respect for the environment.
Invite children to share in-home experiences with earth materials.	Engage children in caring for and protecting the environment through everyday routine in the preschool environment.
	Collect and use recycled materials.



Science

Understanding California's preschool children and families, universal design for learning, and partnering with families:

- California's Preschool Children (pp. 3–5)
- Overarching principle: "Family and community partnerships create meaningful connections" (pp. 7–8)
- Overarching principle: "Individualization of learning includes all children" (p. 8)

Science: Unit 3, Key Topic 4

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2

Science

Understanding California's preschool children and families, universal design for learning, and partnering with families:

- Overarching principle: "Responsiveness to culture and language supports children's learning" (pp. 8–9)
- Universal Design for Learning (p. 14)
- "Partnering with families in curriculum planning" (p. 35)

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3

Science

California's state preschools include children who:

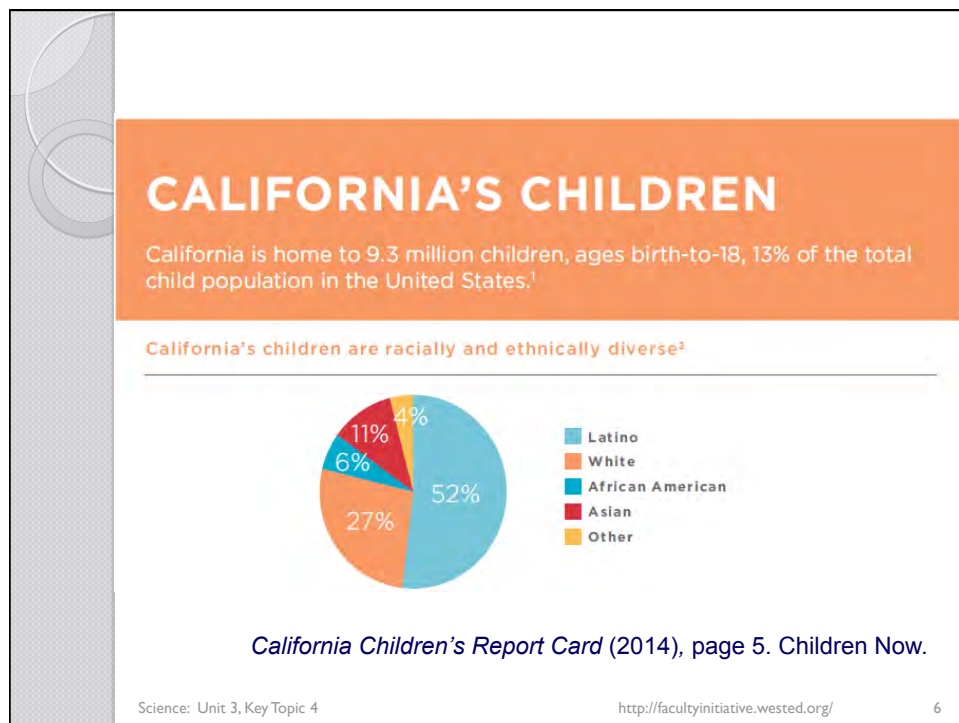
- Are ethnically and culturally diverse.
- Speak languages other than English.
- Have different abilities.
- Come from diverse socioeconomic backgrounds.

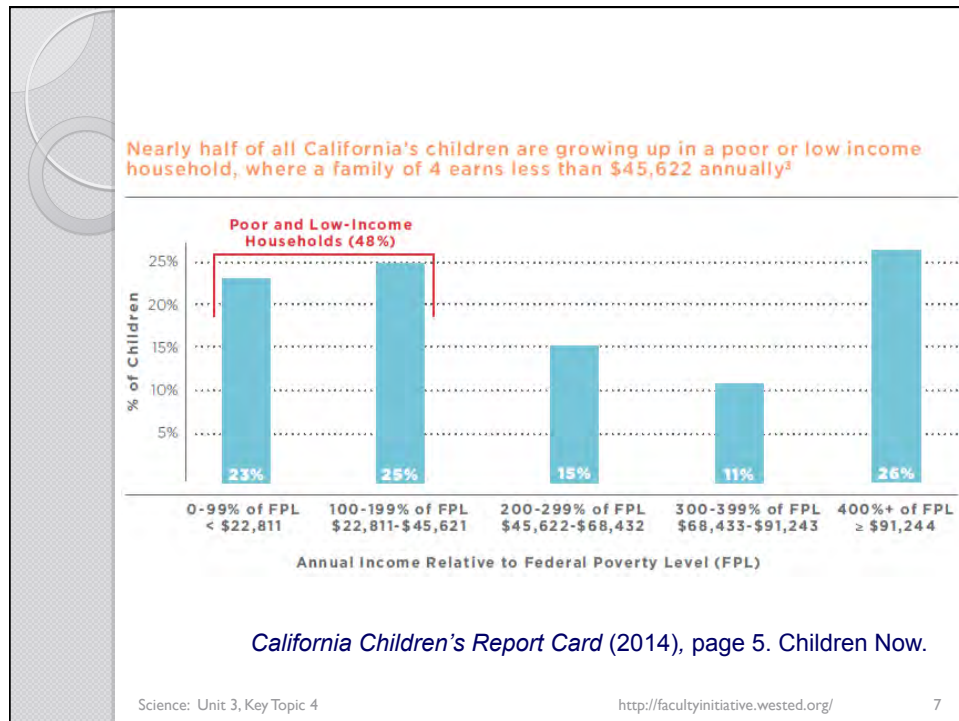
(California Preschool Curriculum Framework, Volume 3, pages 3-5)

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4





Science

- Almost half of all children living in California live in immigrant families.
- 22% of students in California are English learners.
- The majority of students who are English learners are native Spanish speakers.

~ Refers to all children ages birth to 18 years
California Children's Report Card (2014). Children Now.

Science: Unit 3, Key Topic 4 <http://facultyinitiative.wested.org/> 8

Science

Universal Design for Learning

- Provides for multiple means of representation, multiple means of engagement, and multiple means of expression.



California Preschool Curriculum Framework, Volume 3 (page 14)

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9

Science

Multiple means of representation

- Providing information in a variety of ways to meet the learning needs of all children

Multiple means of expression

- Allowing children to use alternative ways to communicate or demonstrate what they know or what they are feeling

Multiple means of engagement

- Offering choices in the setting or program that facilitate learning by building on children's interests

California Preschool Curriculum Framework, Volume 3 (page 14)

Science: Unit 3, Key Topic 4

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10

Science

- A teacher might need to hold a hand lens steady for a child. (*California Preschool Curriculum Framework, Volume 3, p. 159*)
- Children record their observations with drawings, verbal or sign language dictations, or with communication devices. (pp. 168, 169)
- Provide accommodations for children with physical disabilities to explore a variety of objects and materials in their environments. (p.180)

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11

Science

- Children can be encouraged to observe changes in plants' growth and "communicate their observations and ideas verbally or by drawing, pointing, or acting with their bodies." (*California Preschool Curriculum Framework, Volume 3, p. 208*)
- When searching for earth materials in nature, there should be consideration "made for children with special needs through assistance by teachers or peers or adaptation of materials so they are able to fully participate and make observations." (p. 218)

Science: Unit 3, Key Topic 4

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12

Science

- Review the vignette.
- Identify any elements of universal design for learning that the teacher used.
- Think of other ways that universal design could be incorporated.

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

13

Science

- What images, words, or phrases are going through your head?
- What did you find easy in identifying examples of universal design for learning in your vignette and including examples in your presentation? What was more challenging?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

14

Science

- What are some insights about universal design for learning that you learned from preparing your presentation? From your classmates' presentations?
- Where do you need more practice or support in applying universal design for learning in science? How could you obtain these?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

15

Science

- What information from the presenter(s) caught your attention or stood out for you?
- What ideas or strategies seemed familiar? Which ones were new?
- What are some key messages or different perspectives that you are taking away from this presentation?

Science: Unit 3, Key Topic 4

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Science

- What supports do you need to more fully implement the universal design for learning concepts to ensure that all children in your program have access to the science curriculum?
- What are some steps you can take to obtain these supports?

Science: Unit 3, Key Topic 4

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17

Science



“Individualization of learning includes all children.”

Overarching principle, *California Preschool Curriculum Framework, Volume 3* (page 8)

Science: Unit , Key Topic 4

<http://facultyinitiative.wested.org/>

18

Science

- Temperament
- Family and cultural experiences
- Language experiences
- Personal strengths
- Interests
- Abilities
- Dispositions

Science: Unit 3, Key Topic 4

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19

Science

- What did you notice when looking for examples of individualization in the interactions and strategies? What stood out for you?
- What individualization strategies do you feel most confident in being able to use? Which ones might be more difficult?

Science: Unit 3, Key Topic 4

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20

Science

- Which individualization practices seem the most critical to support children's learning in science?
- What are three new individualization practices that you will use in your teaching of science?

Science: Unit 3, Key Topic 4

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Science

“Family and community partnerships create meaningful connections.”



California Preschool Curriculum Framework, Volume 3 (pages 7-8)

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

22

Science

Engaging Families

- What words or images caught your attention?
- What approaches would you feel comfortable using? Which topic or substrand areas do you feel more confident in discussing with families? What concerns do you have?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

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Science

Engaging Families

- What are some new insights that are emerging for you as you think about engaging families in supporting their children's learning science concepts and skills?
- What will you do differently in your communications and interactions with families?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

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Science



- What are some ideas, concepts, or strategies that you learned from this class session?
- Which ones reinforced what you have already learned or experienced? Which ones were new or caused you to think differently about teaching preschool children and/or engaging their families?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

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Science



- Why do you think the content of this class session was presented the way it was? How did this approach help you understand the content? What else would have helped?
- How will you decide what to apply from this class session in your work with preschool children and/or their families? What will you do to ensure you will implement what you have decided to use?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

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Unit 3 – Science:

Key Topic 5: Exploring the Research Highlights of the Science Domain

Focus Statement

Students explore some of the research base for the science domain by reviewing the research highlights and additional books or Web resources.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project's (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Book review
- Class discussion
- Class presentation
- Development of a resource tool
- Jigsaw reading
- Literature review
- Pairs or small groups
- Reflective discussion
- Short paper or report



California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division's *California Early Childhood Educator Competencies*. The "Competency Areas to Consider" below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Culture, Diversity, and Equity
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Learning Environments and Curriculum
- Leadership in Early Childhood Education
- Professionalism



Unit 3 – Science:

Key Topic 5: Exploring the Research Highlights of the Science Domain

Before You Start

This key topic is intended to acquaint students with the research base of the domain and with resources available to deepen and enrich their understanding of the science domain. Students are asked to read the research highlights and to work further with one of them. As with the foundations, it is important for students to understand that there is a strong research base in this domain for how and what children will learn about science in the early years. It is also important for students to understand that this research is related to children's learning—not to the content of the science topic itself.

There is a list of resources for teachers on pages 232–233 of the *California Preschool Curriculum Framework, Volume 3* that contains a list of books and a list of Web resources. Students will be asked to use both. This will require access to a library and the Internet. If that is not possible for some students, faculty can support students in exploring how they might find these resources. In some remote areas, locating them might be problematic, but it also is important for students to find out how they can access these resources as this will be important in their work with children, parents, and colleagues.

Information Delivery



Slide 2

Ask students to find these research highlights in Chapter 3 of the *California Preschool Curriculum Framework, Volume 3* and read them together:

- Children's Misconceptions in Science (pp. 150–151)
- Family Activities Benefit Children (pp. 174–175)
- Understanding Cause-and-Effect (p. 185)
- The Insides of Living Things (p. 205)
- Growth and Change in Living Things (p. 206)

The strand of Scientific Inquiry provides samples of developmental sequences for each substrand on pages 154–155 and page 166. Ask students to read these as well, and remind them that these are also



research based, although the specific studies are not cited here. Also remind students that the foundations illustrate these developmental sequences in more detail and are also research based.

Active Learning

Getting it started

Organize students into pairs and assign a research highlight to each pair. Ask students to carefully read and discuss their highlight and agree on a key point of the highlight. Then ask students to present their key point. If you have more than one pair per highlight, it would be interesting to have all pairs for each highlight present at one time and note the similarities and differences in their perceptions of what is key for each highlight.

Keeping it going

Point out that each research highlight is supported by references in the *California Preschool Curriculum Framework, Volume 3*

Endnotes (pp. 237–240) that are indicated by small superscript numbers after some of the sentences in the highlight. Ask students to locate these studies or writings in the Endnotes. Ask them to briefly reflect on the research that has been done to deepen our understanding of what and how young children learn about science. What do the students learn about the research base by reviewing these references?

Online Options

Students could write a short description of the key point and a summary of the research for the highlight they read. These summaries could be posted online for review and comparison by the instructor and their peers.

Taking it further

Next, ask students to turn to the Teacher Resources on pages 232–233. Note that these are in two sections: Books and Web Resources. Ask the students to continue in their pairs and to find one book and one Web resource that each pair would like to explore further. Note that the books tend to provide rationale, research-to-practice information, and examples of curriculum planning and activities to use in the classroom. Web resources tend to focus on descriptions of programs, training opportunities, and other professional development, as well as activities and curriculum resources.

Again ask the students to work in their pairs and prepare a brief one-page review for the book and a brief one-page review for the Web resource. They can do this by dividing the work so that one student explores the book and one explores the Web resource. This might align with each student's access to library and/or online resources.



However, each is to review the partner's work and ensure that it is presented clearly and usefully for peers.



Slide 3

A brief exploration should provide them with the information needed for their review, which should contain these elements:

- Full bibliographic information as presented in the Teacher Resource lists
- A summary of the content of each resource
- What appears to be most helpful for teachers of young children, with one or two specific examples
- A personal reflection on the resource: Surprises? Concerns? Something new learned?

Putting it together

Organize students' reviews and compile them as a resource for all students.

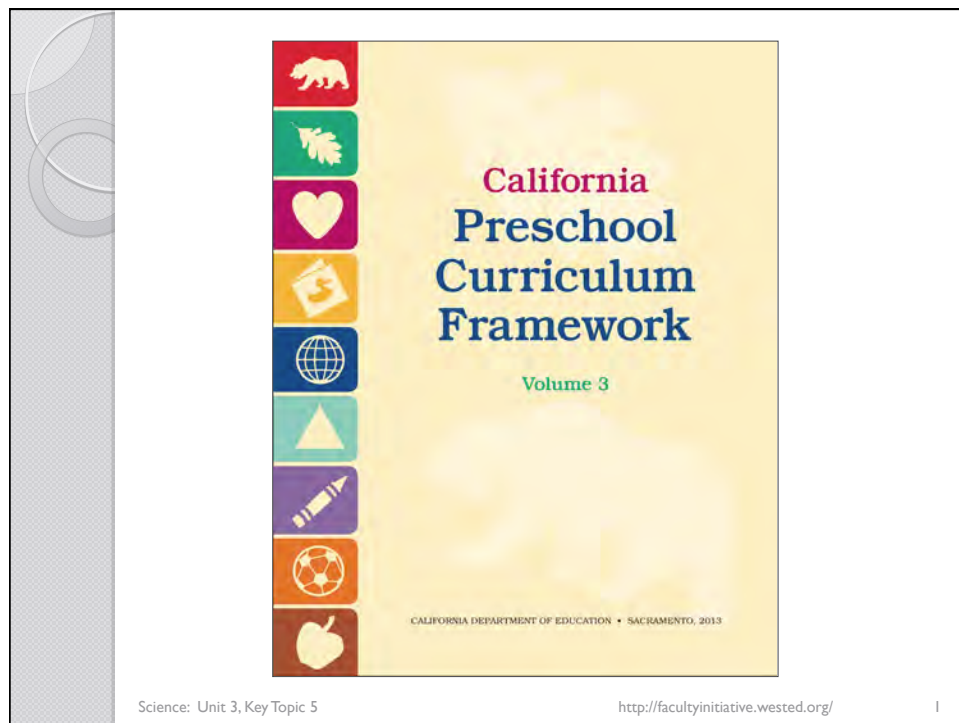
Reflection

After students complete any of the active learning segments, faculty can engage students in reflecting on the research base of the science domain.



Slide 4

- As you have been engaging with the research base, what has stood out for you?
- How has this affected your interest in integrating science into the curriculum for young children?
- What questions or topics relating to how children learn about science would you like to find out more about?
- How could you do this?



Science

Research Highlights

- Children's Misconceptions in Science (pp. 150–151)
- Family Activities Benefit Children (pp. 174–175)
- Understanding Cause-and-Effect (p. 185)
- The Insides of Living Things (p. 205)
- Growth and Change in Living Things (p. 206)

Science: Unit 3, Key Topic 5

<http://facultyinitiative.wested.org/>

2

Science

Teacher Resources (pp. 232–233)

- Find a book and a web resource to explore.
- Prepare a 1-page review for each resource and include:
 - Full bibliographic information.
 - A summary of the content of each resource.
 - What appears to be most helpful for teachers of young children, with one or two specific examples.
 - A personal reflection on the resource: Surprises? Concerns? Something new learned?

Science: Unit 3, Key Topic 5

<http://facultyinitiative.wested.org/>

3



- As you have been engaging with the research base, what has stood out for you?
- How has this affected your interest in integrating science into the curriculum for young children?
- What questions or topics relating to how children learn about science would you like to find out more about?
- How could you do this?

Science: Unit 3, Key Topic 5

<http://facultyinitiative.wested.org/>

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Instructional Methodologies Definitions

Instructional Methodologies Definitions for the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

In this instructional guide, a variety of instructional methodologies have been suggested across all key topics. The intention is to provide instructors with access to diverse instructional methodologies that will enrich the experiences of their students and also support meeting program or college requirements for engaging students in a variety of methodologies. In the preview page(s) for each key topic, the instructional methodologies that are used during that key topic are listed. These methodologies are indexed in the Instructional Methodologies Index, so that instructors can make decisions based on which methodologies they prefer to use with their students.

The following list provides working definitions for each of the methodologies referred to in Faculty Initiative Project's instructional guides. These working definitions provide instructors with an understanding of what is meant by each term. They are not intended as definitive or exhaustive and refer only to the way in which they are used in these instructional guides.

Book review

Students are asked to indicate, in writing, how well they understood the contents of a book, how they think about it, and possibly how it connects to their work and/or experience.

Brainstorming

Students generate thoughts or ideas within a group without judgment as to the merits of what is generated.

Categorizing

Students put objects, thoughts, ideas, or concepts into groups based on overarching themes, theories, frameworks, likenesses, or differences.

Class discussion

All students participate in sharing of ideas/points of view, asking questions, and responding to others. This is often guided by an initial instructional question or prompt.

Class presentation

An individual student or small or larger group of students shares, performs, or presents material or a project that is related to an assigned or chosen topic.

Conversation grid

Students use a grid as a basis to facilitate discussion and learning. The conversation grid can be used to record notes, record answers, and/or raise additional questions.

Creation of a visual representation

Students develop a way to visually show a specific idea or concept. This can be a chart, table, graphic, poster, PowerPoint presentation, sculpture, collage, video, diorama, or any other medium that visually represents a concept, theory, practice, or idea.

Development of a resource tool

Students create a collection of relevant resources and/or information relating to a specific topic to be shared and used as a resource for other teachers or students.

Game

Students participate in interactive playful activities—focused on specific content or learning outcomes—that facilitate students' exploration of a topic and/or skill.

Interview

Students conduct a question-and-answer session with a content expert, such as an early care and education professional or parent.

Jigsaw reading

Pairs or small groups of students are given sections of an article or text chapter to read and then find a creative and meaningful way to share the content with their peers.

Lecture

Instructors present an organized verbal presentation of ideas and/or information related to a specific topic. A PowerPoint presentation or other forms of visual support may accompany this.

Literature review

Students explore what a variety of authors have to say about a topic or question that is either selected by the student or assigned by the faculty.

Notetaking outline or guide

Students are provided with a form that supports their focus on the key points covered. This may be a form with the key points listed along with spaces for students to add information gained from the lecture, readings, or discussion or a form on which students list key points and add the information.

Observations

Students are asked to actively look at, listen to, and think about something, such as a classroom, child/ren, or teacher-child interactions. As observers, they do not participate in the setting or interfere with those around them. Observations may be conducted via video or in actual settings.

Pairs or small groups

Students are organized into pairs or groups of three to five for the purpose of completing a task such as having a discussion, solving a problem, preparing and implementing a presentation, and/or creating a resource or visual display.

Panel/guest speaker

Content experts come to class to share their knowledge and experiences on topics related to course content.

Peer review and feedback

Other individuals with similar characteristics—such as class members, co-teachers, or parents—review and share thoughts, identify strengths, and suggest areas of improvement with the peer member about his/her work, project, or presentation.

Personal reflection

An individual student or group of students engages in remembering details and thinking about an occurrence or experience. This requires one to consider one's own role, behaviors, thoughts, and/or feelings in a particular situation or experience, as well as how one might apply the knowledge and understanding from the reflection to a new situation in the future.

Photo observation

Students explore a photograph, usually used to illustrate a concept or idea or to document an exercise or activity.

Problem solving

Students work on a solution to one or a series of tasks, questions, or problems. Problem solving may be done individually or as a group or class.

Reflective discussion

Following a learning experience, students engage in a discussion or talk about details and think about an event or experience that has occurred. The process requires students to consider their own role, behaviors, thoughts, and feelings in a particular situation or experience, as well as how one might apply the knowledge and understanding from the reflection to a new situation in the future. A reflective discussion might be facilitated by questions or prompts to guide and encourage participants to actively participate in reflection.

Role playing

Students take on a role in an activity and act it out.

Short paper or report

Students write a short paper that focuses on a specific topic or question.

Video observation

Students observe video for the purposes of documentation, understanding, and discussion.

For additional instructional guide resources, continue to check out the Faculty Initiative Project's Web site at <http://facultyinitiative.wested.org/>.

Instructional Methodologies Index

Instructional Methodologies Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Each key topic is written to include a variety of instructional methodologies. This is intended to provide varied learning experiences for students as they encounter the preschool curriculum framework. It also provides another variable for faculty to use in deciding which key topic learning experiences will best suit the needs of their students and programs.

In this instructional guide, these methodologies are identified for each key topic and are listed on its preview page(s). The instructional methodologies are also indexed so that faculty can get an overview of which methodologies are used across all units/domains and key topics.

To locate page numbers for each key topic listed in the following index, refer to the Table of Contents of this instructional guide.

Instructional Methodologies Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

	 Introduction to the Framework	 History–Social Science Domain	 Science Domain	 Framework as a Resource
Book Review		• Key Topic 5	• Key Topic 5	
Class Discussion	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2 • Key Topic 3	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 4 • Key Topic 5	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 4 • Key Topic 5	• Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 4
Class Presentation • Demonstration • Oral Presentation • Presentation • Student Panel Presentation	• Key Topic 3	• Key Topic 1 • Key Topic 2 • Key Topic 4 • Key Topic 5	• Key Topic 4 • Key Topic 5	• Key Topic 1
Conversation Grid		• Getting Ready for the Unit		
Creation of a Visual Representation	• Getting Ready for the Unit • Key Topic 1 • Key Topic 3	• Key Topic 1 • Key Topic 4	• Key Topic 1 • Key Topic 4	

Instructional Methodologies Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

	 Introduction to the Framework	 History–Social Science Domain	 Science Domain	 Framework as a Resource
Development of Resource Tool	• Key Topic 3	• Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 4 • Key Topic 5	• Key Topic 4 • Key Topic 5	• Key Topic 1 • Key Topic 3 • Key Topic 4
Interview • Community Members • Parents • Peers • Teachers	• Key Topic 3	• Key Topic 2 • Key Topic 4		• Key Topic 3
Jigsaw Reading	• Key Topic 1		• Key Topic 5	• Key Topic 2 • Key Topic 3 • Key Topic 4
Lecture		• Key Topic 4 • Key Topic 5	• Key Topic 4	
Literature Review		• Key Topic 5	• Key Topic 5	
Notetaking Outline or Guide	• Key Topic 2	• Key Topic 1	• Key Topic 1 • Key Topic 2 • Key Topic 3	

Instructional Methodologies Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

	 Introduction to the Framework	 History–Social Science Domain	 Science Domain	 Framework as a Resource
Observations		• Key Topic 2		• Key Topic 3
Pairs or Small Groups	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2 • Key Topic 3	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2 • Key Topic 4 • Key Topic 5	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 4 • Key Topic 5	• Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 4
Panel/Guest Speaker	• Key Topic 3	• Key Topic 2 • Key Topic 4	• Key Topic 4	• Key Topic 4
Peer Review and Feedback		• Key Topic 1	• Key Topic 4	
Personal Reflection	• Getting Ready for the Unit	• Getting Ready for the Unit • Key Topic 3	• Getting Ready for the Unit	
Problem Solving				• Key Topic 2

Instructional Methodologies Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

	 Introduction to the Framework	 History–Social Science Domain	 Science Domain	 Framework as a Resource
Reflective Discussion • Pairs • Small Group • Large Group	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 5	• Getting Ready for the Unit • Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 4 • Key Topic 5	• Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 4
Role Playing			• Key Topic 4	
Short Paper or Report	• Key Topic 2 • Key Topic 3	• Key Topic 1 • Key Topic 2 • Key Topic 3 • Key Topic 5	• Key Topic 3 • Key Topic 4 • Key Topic 5	• Key Topic 3
Video Observation				• Key Topic 3

Student Learning Outcomes Index

Student Learning Outcomes and CAP Lower Division Eight Courses Mapped onto the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

To support faculty in deciding how and where they can best use the *California Preschool Curriculum Framework, Volume 3* in their course work or across their program, the Student Learning Outcomes (SLOs) developed by the Curriculum Alignment Project (CAP) for the eight core lower division early childhood courses have been mapped onto the key topics for each domain in this instructional guide. Each Key Topic Preview Page provides course suggestions for instructor consideration.

More information about the Curriculum Alignment Project can be found on its website: http://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm.

Appendix A is a listing of the suggested CAP lower division eight courses for all key topics in this instructional guide with the addition of the SLOs, objectives, and examples of course content and topics. Appendix A is first organized by instructional guide units and key topics, then by the CAP courses, SLOs, objectives, and examples of course content and topics.

This is not an exhaustive list, and faculty might find ways to use the key topics to address SLOs by means other than what has been indexed. Working through these selected key topics does not guarantee the achievement of any student learning outcome or objective; it is understood that students achieve student outcomes through repeated engagement with information and experiences that build competence.

To locate page numbers for each key topic listed in the following index, refer to the Instructional Guide Table of Contents.

California State University and University of California

The Curriculum Alignment Project (CAP) course and student learning outcomes (SLO) mapping with this instructional guide is done with the understanding that not all institutions will use these particular SLOs or objectives. This is particularly true for faculty at the California State University (CSU) and University of California (UC) campuses. The SLOs do provide learning outcomes that can be used selectively or with adaptations for courses at the CSU and UC campuses and indicate what can be accomplished by students through using the key topics in this instructional guide.



CAP Lower Division Eight Courses and Student Learning Outcomes Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Course: Child Growth and Development

Curriculum Alignment Project's (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012) <i>Student learning outcomes are matched to specific learning experiences in the instructional guide that will support attainment of that outcome.</i>	Instructional Guide Units, Domains, and Key Topics in Which CAP Student Learning Outcomes Are Addressed
Course: Child Growth and Development	 Unit 3 – Science
Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.	Unit 3, Key Topic 1
Identify cultural, economic, political, historical contexts that affect children's development.	
Identify and compare major theoretical frameworks related to the study of human development.	
Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies.	Unit 3, Key Topic 5
Differentiate characteristics of typical and atypical development.	Unit 3, Key Topic 4
Additional Specific CAP Objectives and Course Content/Topics – See Appendix A	- Unit 3, Key Topic 1 - Unit 3, Key Topic 4 - Unit 3, Key Topic 5

Note to faculty: See Appendix A for a detailed list of the CAP Student Learning Outcomes, Objectives, and Course Content/Topics indicated for this instructional guide's units, domains, and key topics.



CAP Lower Division Eight Courses and Student Learning Outcomes Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Course: Child, Family and Community

Curriculum Alignment Project's (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012) <i>Student learning outcomes are matched to specific learning experiences in the instructional guide that will support attainment of that outcome.</i>	Instructional Guide Units, Domains, and Key Topics in Which CAP Student Learning Outcomes Are Addressed
Course: Child, Family and Community	 Unit 3 – Science
Analyze theories of socialization that address the interrelationship of child, family and community.	
Assess the impact of educational, political, and socioeconomic factors on children and families.	
Describe social issues, changes, and transitions that affect children, families, schools, and communities.	
Describe effective strategies that empower families and encourage family involvement in children's development.	• Unit 3, Key Topic 1 • Unit 3, Key Topic 2 • Unit 3, Key Topic 4
Identify and evaluate community support services and agencies available to families and children.	
Analyze one's own values, goals and sense of self as related to family history and life experiences, assessing how this impacts relationships with children and families.	
Additional Specific CAP Objectives and Course Content/Topics – See Appendix A	• Unit 3, Key Topic 1 • Unit 3, Key Topic 2 • Unit 3, Key Topic 4



CAP Lower Division Eight Courses and Student Learning Outcomes Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Course: Introduction to Curriculum

Curriculum Alignment Project's (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012) <i>Student learning outcomes are matched to specific learning experiences in the instructional guide that will support attainment of that outcome.</i>	Instructional Guide Units, Domains, and Key Topics in Which CAP Student Learning Outcomes Are Addressed
Course: Introduction to Curriculum	 Unit 3 – Science
Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.	• Unit 3, Getting Ready for the Unit • Unit 3, Key Topic 2 • Unit 3, Key Topic 3 • Unit 3, Key Topic 4
Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.	• Unit 3, Key Topic 2 • Unit 3, Key Topic 3 • Unit 3, Key Topic 4 • Unit 3, Key Topic 5
Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.	• Unit 3, Key Topic 1 • Unit 3, Key Topic 2
Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.	• Unit 3, Getting Ready for the Unit • Unit 3, Key Topic 2
Additional Specific CAP Objectives and Course Content/Topics – See Appendix A	• Unit 3, Getting Ready for the Unit • Unit 3, Key Topic 1 • Unit 3, Key Topic 2 • Unit 3, Key Topic 3 • Unit 3, Key Topic 4 • Unit 3, Key Topic 5



CAP Lower Division Eight Courses and Student Learning Outcomes Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Course: Principles and Practices of Teaching Young Children

Curriculum Alignment Project's (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012) <i>Student learning outcomes are matched to specific learning experiences in the instructional guide that will support attainment of that outcome.</i>	Instructional Guide Units, Domains, and Key Topics in Which CAP Student Learning Outcomes Are Addressed
Course: Principles and Practices of Teaching Young Children	 Unit 3 – Science
Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.	• Unit 3, Getting Ready • Unit 3, Key Topic 4 • Unit 3, Key Topic 5
Develop one's teaching philosophy and professional goals.	
Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.	• Unit 3, Key Topic 1 • Unit 3, Key Topic 2 • Unit 3, Key Topic 3
Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.	• Unit 3, Getting Ready
Examine a variety of guidance and interaction strategies to increase children's social competence and promote a caring classroom community.	• Unit 3, Key Topic 3
Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.	• Unit 3, Key Topic 2
Additional Specific CAP Objectives and Course Content/Topics – See Appendix A	• Unit 3, Getting Ready for the Unit • Unit 3, Key Topic 1 • Unit 3, Key Topic 2 • Unit 3, Key Topic 3 • Unit 3, Key Topic 4 • Unit 3, Key Topic 5



CAP Lower Division Eight Courses and Student Learning Outcomes Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Course: Observation and Assessment

Curriculum Alignment Project's (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012) <i>Student learning outcomes are matched to specific units, domains, and key topics in the instructional guide that will support attainment of that outcome.</i>	Instructional Guide Units, Domains, and Key Topics in Which CAP Student Learning Outcomes Are Addressed
Course: Observation and Assessment	 Unit 3 – Science
Compare the purpose, value and use of formal and informal observation and assessment strategies.	Unit 3, Getting Ready for the Unit
Evaluate the characteristics, strengths and limitations of common assessment tools.	
Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior.	- Unit 3, Getting Ready for the Unit - Unit 3, Key Topic 2
Identify the role of partnerships with families and other professionals in utilizing interpretations of observational data to inform teaching practices.	
Additional Specific CAP Objectives and Course Content/Topics – See Appendix A	- Unit 3, Getting Ready for the Unit - Unit 3, Key Topic 2



CAP Lower Division Eight Courses and Student Learning Outcomes Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Course: Health, Safety and Nutrition

Curriculum Alignment Project's (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012) <i>Student learning outcomes are matched to specific units, domains, and key topics in the instructional guide that will support attainment of that outcome.</i>	Instructional Guide Units, Domains, and Key Topics in Which CAP Student Learning Outcomes Are Addressed
Course: Health, Safety and Nutrition	 Unit 3 – Science
Assess strategies to maximize the mental and physical health of children and adults in accordance with culturally, linguistic and developmentally sound practice.	
Identify health, safety, and environmental risks in children's programs.	
Analyze the nutritional needs of children at various ages and evaluate the relationship between healthy development and nutrition.	
Evaluate regulations, standards, policies and procedures related to health, safety, and nutrition in support of young children, teachers and families.	
Discuss the value of collaboration with families and the community.	Unit 3, Key Topic 4
Additional Specific CAP Objectives and Course Content/Topics – See Appendix A	Unit 3, Key Topic 4



CAP Lower Division Eight Courses and Student Learning Outcomes Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Course: Teaching in a Diverse Society

Curriculum Alignment Project's (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012) <i>Student learning outcomes are matched to specific units, domains, and key topics in the instructional guide that will support attainment of that outcome.</i>	Instructional Guide Units, Domains, and Key Topics in Which CAP Student Learning Outcomes Are Addressed
Course: Teaching in a Diverse Society	 Unit 3 – Science
Critique the multiple societal impacts on young children's social identity.	Unit 3, Key Topic 5
Analyze various aspects of children's experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.	
Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.	Unit 3, Key Topic 4
Evaluate the impact of personal experiences and social identity on teaching effectiveness.	
Additional Specific CAP Objectives and Course Content/Topics – See Appendix A	- Unit 3, Key Topic 4 - Unit 3, Key Topic 5



CAP Lower Division Eight Courses and Student Learning Outcomes Indexed with the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

Course: Practicum-Field Experience

Curriculum Alignment Project's (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012) <i>Student learning outcomes are matched to specific units, domains, and key topics in the instructional guide that will support attainment of that outcome.</i>	Instructional Guide Units, Domains, and Key Topics in Which CAP Student Learning Outcomes Are Addressed
Course: Practicum-Field Experience	 Unit 3 – Science
Integrate understanding of children's development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.	• Unit 3, Key Topic 2 • Unit 3, Key Topic 4 • Unit 3, Key Topic 5
Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.	• Unit 3, Key Topic 1 • Unit 3, Key Topic 2 • Unit 3, Key Topic 3 • Unit 3, Key Topic 5
Design, implement and evaluate curriculum activities that are based on observation and assessment of young children.	
Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.	• Unit 3, Getting Ready for the Unit • Unit 3, Key Topic 4
Critically assess one's own teaching experiences to guide and inform practice.	• Unit 3, Getting Ready for the Unit • Unit 3, Key Topic 3
Additional Specific CAP Objectives and Course Content/Topics – See Appendix A	• Unit 3, Getting Ready for the Unit • Unit 3, Key Topic 1 • Unit 3, Key Topic 2 • Unit 3, Key Topic 3 • Unit 3, Key Topic 4 • Unit 3, Key Topic 5

Appendix A

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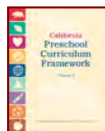
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Appendix A

Student Learning Outcomes and CAP Lower Division Eight Courses Mapped onto the *Instructional Guide for the California Preschool Curriculum Framework, Volume 3*

To support faculty in decisions regarding how and where they can best use the *California Preschool Curriculum Framework, Volume 3* in their course work or across their program, the Student Learning Outcomes (SLOs) developed by the Curriculum Alignment Project (CAP) (https://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm) for the eight core lower division early childhood courses have been mapped onto each key topic in this instructional guide for consideration. Each Key Topic Preview Page will provide the list of courses that have been mapped onto the specific key topic.

The Curriculum Alignment Project's SLOs, objectives, and examples of course content and topics indicated for this instructional guide for the *California Preschool Curriculum Framework, Volume 3* are found in this Appendix A. Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by unit and domain. The location of the SLO Index is listed in the Table of Contents for this instructional guide.

These SLOs are organized by the CAP core lower division early childhood courses. This is not an exhaustive list, and faculty might find ways to use the learning experiences to address SLOs by means other than what has been indexed. Working through these selected key topic learning experiences does not guarantee the achievement of any student learning outcome or objective; it is understood that students achieve student outcomes through repeated engagement with information and experiences that build competence.

To assist faculty in using these SLOs as supports for decision making, the instructional guide key topics are indexed first by units and domains, then by CAP courses and SLOs so that faculty can select what is most relevant to their particular needs. Student learning outcomes are matched to specific key topics in the instructional guide that will support attainment of that outcome. Not all student learning outcomes map onto the specific content of the instructional guide.

California State University and University of California

The Curriculum Alignment Project (CAP) course and student learning outcomes (SLOs) mapping with this instructional guide is done with the understanding that not all institutions will use these particular SLOs or objectives. This is particularly true for faculty at the California State University (CSU) and University of California (UC) campuses. The SLOs do provide learning outcomes that can be used selectively or with adaptations for courses at the CSU and UC campuses and indicate what can be accomplished by students through using the key topics in this instructional guide.



Unit 1

Chapter 1: Introduction to the Framework

Getting Ready for the Unit and Connecting to Experience

Course: Child, Family and Community

Student Learning Outcomes:

- Describe social issues, changes, and transitions that affect children, families, schools, and communities.

Objectives:

- Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.

Content and Topics:

- Interrelatedness of family, school and community as agents of socialization
- The influence of teachers' and caregivers' personal experience and family history on relationships with children and families.
- The role of group childcare and early schooling on socialization

Course: Introduction to Curriculum

Student Learning Outcomes:

- Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Identify the influence of daily schedules and routines on curriculum and activities.
- Identify ways in which the environment functions as an essential component of curriculum.

Content and Topics:

- Innovative and best practices in teaching
- Use of current research
- Content areas (math, science, literacy, social studies, creative arts)
- The development of the whole child (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.

**Course: Principles and Practices of Teaching Young Children – Continued**

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.

Content and Topics:

- Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.

Objectives:

- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.

Content and Topics:

- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships
- Environments and curriculums that respectively reflect children’s cultures and experiences and that expose children to the larger communities in which they live

Course: Practicum-Field Experience

Student Learning Outcomes:

- Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:

- Integrate content areas and opportunities for development across the curriculum
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:

- Self reflection and self-assessment through team collaboration and portfolio documentation
- Content Areas:
 - Science
 - Social Studies
- California State Learning Standards and tools



Unit 1

Chapter 1: Introduction to the Framework

Key Topic 1 – Getting to Know the Organization of the *California Preschool Curriculum Framework, Volume 3*

Course: Child Growth and Development

Student Learning Outcomes:

- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:

- Demonstrate knowledge of current research as it applies to child development.

Content and Topics:

- Major current and historical theoretical frameworks of child development

Course: Child, Family and Community

Student Learning Outcomes:

- Describe effective strategies that empower families and encourage family involvement in children's development.

Objectives:

- Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.

Content and Topics:

- Role of family in children's developmental outcomes.
- Teachers' and caregivers' influences on children and families

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings for young children.
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

**Course: Introduction to Curriculum – Continued**

Content and Topics:

- Standards from legislation and accrediting groups
- Innovative and best practices in teaching
- Use of current research
- Components of effective learning environments

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.
- Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Describe the relationship of observation, planning, implementation, and assessment in effective programming.

Content and Topics:

- The importance of developmentally, culturally, linguistically appropriate practice.
- Play as a vehicle for development and learning
- Essentials of program planning and the interrelationship of planning, observation, and assessment

Course: Observation and Assessment

Student Learning Outcomes:

- Compare the purpose, value and use of formal and informal observation and assessment strategies.

Objectives:

- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.

Content and Topics:

- Utilization of observation and assessment data to create appropriate curricula and environments
- The value of collaboration with families and professionals
- Observation as part of the on-going process of curriculum and planning that support all children.



Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

Objectives:

- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.

Content and Topics:

- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children's development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Integrate content areas and opportunities for development across the curriculum

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Organization of physical environment, routine/schedule, and materials
- Content Areas:
 - Science
 - Social Studies
- California State Learning Standards and tools



Unit 1

Chapter 1: Introduction to the Framework

Key Topic 2 – Getting to Know the Eight Overarching Principles

Course: Child Growth and Development

Student Learning Outcomes:

- Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies.

Objectives:

- Demonstrate objective techniques and skills when observing, interviewing, describing and evaluating behavior in children of all ages.
- Identify and describe biological and environmental factors that influence children's development from conception to adolescence across domains.

Content and Topics:

- Investigative research methods:
 - Observation
- Play-Years Development (including but not limited to physical, social/emotional, cognitive, language, special needs, risk factors, and care and education at each level).

Course: Introduction to Curriculum

Student Learning Outcomes:

- Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.

Objectives:

- Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.

Content and Topics:

- Observation and assessment strategies as they apply to curriculum planning and evaluation.
- Use of current research
- Components of effective learning environments

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.

**Course: Principles and Practices of Teaching Young Children – Continued**

Student Learning Outcomes:

- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Demonstrate basic observational skills.

Content and Topics:

- The importance of developmentally, culturally, linguistically appropriate practice.
- Play as a vehicle for development and learning
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Observation and Assessment

Student Learning Outcomes:

- Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior.

Objectives:

- Identify and apply basic quantitative and qualitative observation and recording techniques.
- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.

Content and Topics:

- National and State standards for learning and assessment (e.g., NAEYC's position statement on assessment)
- Utilization of observation and assessment data to create appropriate curricula and environments

Course: Practicum-Field Experience

Student Learning Outcomes:

- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.

Objectives:

- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.



Course: Practicum-Field Experience – Continued

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Organization of physical environment, routine/schedule, and materials
- California State Learning Standards and tools



Unit 1

Chapter 1: Introduction to the Framework

Key Topic 3 – Getting to Know the Curriculum-Planning Cycle

Course: Introduction to Curriculum

Student Learning Outcomes:

- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:

- Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.
- Demonstrate ability to document curriculum planning process with written curriculum plans.
- Identify ways in which the environment functions as an essential component of curriculum.

Content and Topics:

- Observation and assessment strategies as they apply to curriculum planning and evaluation.
- Innovative and best practices in teaching
- Use of current research
- Components of effective learning environments

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.

Objectives:

- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.
- Describe the relationship of observation, planning, implementation, and assessment in effective programming.

Content and Topics:

- Attention to developmental needs of children of different ages (infant/toddler, preschool, school-age)
- Characteristics and roles of an effective teacher in an early childhood setting

**Course: Observation and Assessment**

Student Learning Outcomes:

- Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior.

Objectives:

- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.
- Demonstrate and apply knowledge of developmental domains to interpret observations.
- Demonstrate knowledge of the role of observation and assessment in intervention.

Content and Topics:

- Appropriate methods of child observation, documentation, portfolio collection, and record keeping
- Utilization of observation and assessment data to create appropriate curricula and environments
- Observation as part of the on-going process of curriculum and planning that support all children.

Course: Practicum-Field Experience

Student Learning Outcomes:

- Design, implement and evaluate curriculum activities that are based on observation and assessment of young children.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Utilize an appropriate recordkeeping system to document, assess and track children's progress.

Content and Topics:

- Self reflection and self-assessment through team collaboration and portfolio documentation
- Integration of content areas across curriculum
- California State Learning Standards and tools

Unit 2

Chapter 2: History–Social Science Domain

Getting Ready for the Unit and Connecting to Experience

Course: Child Growth and Development

Student Learning Outcomes:

- Identify cultural, economic, political, historical contexts that affect children's development.

Objectives:

- Demonstrate knowledge of current research as it applies to child development.
- Identify and describe biological and environmental factors that influence children's development from conception to adolescence across domains.

Content and Topics:

- Contemporary social issues that impact children's development
- The role and influence of family and caregivers
- The role and influence of cultural and societal impacts

Course: Child, Family and Community

Student Learning Outcomes:

- Describe social issues, changes, and transitions that affect children, families, schools, and communities.
- Analyze one's own values, goals and sense of self as related to family history and life experiences, assessing how this impacts relationships with children and families.

Objectives:

- Describe contemporary social issues and their effects on families and children.
- Explore one's own family history and examine how it affects one's relationships with children and families.

Content and Topics:

- Role of family in children's developmental outcomes.
- The influence of teachers' and caregivers' personal experience and family history on relationships with children and families.
- Contemporary social issues and their effect on children and families

Course: Introduction to Curriculum

Student Learning Outcomes:

- Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:

- Consideration of cultural, linguistic, ethnic, economic, ability and gender diversity including the acquisition of English as a second language in planning for young children
- Innovative and best practices in teaching
- Use of current research
- Content areas (math, science, literacy, social studies, creative arts)
- The Role of the ECE teacher

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Differentiate between program types (age, funding stream, purpose, policies, environments, etc.), delivery systems, quality standards, licensing and regulation structures in early childhood settings.

Content and Topics:

- Current and historic models, influences, and approaches in the field of early childhood
- Play as a vehicle for development and learning
- Quality indicators of programs (e.g., accreditation, assessment tools)

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Evaluate the impact of personal experiences and social identity on teaching effectiveness.

Course: Teaching in a Diverse Society – Continued

Objectives:

- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children's identity development and learning.

Content and Topics:

- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships
- Environments and curriculum that challenge children's biases and support the acquisition of authentic information about human differences

Course: Practicum-Field Experience

Student Learning Outcomes:

- Critically assess one's own teaching experiences to guide and inform practice.

Objectives:

- Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Content Areas:
 - Science
 - Social Studies
- Integration of content areas across curriculum
- California State Learning Standards and tools

Unit 2

Chapter 2: History–Social Science Domain

Key Topic 1 – Organization and Rationale of the History–Social Science Domain

Course: Child Growth and Development

Student Learning Outcomes:

- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:

- Demonstrate knowledge of current research as it applies to child development.
- Examine and evaluate the importance of the early years.

Content and Topics:

- Major current and historical theoretical frameworks of child development
- Play-Years Development (including but not limited to physical, social/emotional, cognitive, language, special needs, risk factors, and care and education at each level).

Course: Child, Family and Community

Student Learning Outcomes:

- Describe effective strategies that empower families and encourage family involvement in children's development.

Objectives:

- Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
- Develop appropriate strategies to assist families experiencing stress.

Content and Topics:

- Major current and historical theoretical frameworks of socialization
- Interrelatedness of family, school and community as agents of socialization
- Role of family in children's developmental outcomes.
- Teachers' and caregivers' influences on children and families
- Appropriate and effective communication strategies

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Identify ways in which the environment functions as an essential component of curriculum.

Content and Topics:

- Developmental theory as it applies to curriculum development.
- Innovative and best practices in teaching
- Use of current research
- Components of effective learning environments
- The Role of the ECE teacher

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.
- Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.

Content and Topics:

- Current and historic models, influences, and approaches in the field of early childhood
- The importance of developmentally, culturally, linguistically appropriate practice.
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

Course: Teaching in a Diverse Society – Continued**Objectives:**

- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children's identity development and learning.

Content and Topics:

- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships
- Anti-bias approaches to all curriculum arenas, materials, activities, goals, assessment

Course: Practicum-Field Experience**Student Learning Outcomes:**

- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.
- Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Environment as a teaching and learning tool
- California State Learning Standards and tools
- Family involvement in early childhood programs

Unit 2

Chapter 2: History–Social Science Domain

Key Topic 2 – Getting to Know Environments and Materials That Support History–Social Science

Course: Child Growth and Development

Student Learning Outcomes:

- Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies.

Objectives:

- Demonstrate objective techniques and skills when observing, interviewing, describing and evaluating behavior in children of all ages.
- Examine and evaluate the importance of the early years.

Content and Topics:

- The role and influence of family and caregivers

Course: Introduction to Curriculum

Student Learning Outcomes:

- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:

- Identify ways in which the environment functions as an essential component of curriculum.
- Demonstrate how curriculum and environment can be designed and adapted for children's unique and individual ages, stages, and needs.

Content and Topics:

- Innovative and best practices in teaching
- Program models and approaches (Reggio, Montessori, High Scope, Creative Curriculum, Waldorf, Bank Street, etc.)
- Effective use of learning centers and integrated curriculum
- Components of effective learning environments
- The effect of environment on behavior

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:

- Differentiate between program types (age, funding stream, purpose, policies, environments, etc.), delivery systems, quality standards, licensing and regulation structures in early childhood settings.
- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.

Content and Topics:

- Characteristics and roles of an effective teacher in an early childhood setting
- The influence of environment on behavior and learning (environment as third teacher)

Course: Observation and Assessment

Student Learning Outcomes:

- Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior.

Objectives:

- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.
- Demonstrate knowledge of the role of observation and assessment in intervention.

Content and Topics:

- Utilization of observation and assessment data to create appropriate curricula and environments
- Observation as part of the on-going process of curriculum and planning that support all children.

Course: Practicum-Field Experience

Student Learning Outcomes:

- Design, implement and evaluate curriculum activities that are based on observation and assessment of young children.
- Critically assess one's own teaching experiences to guide and inform practice.

Objectives:

- Assume teaching and non-teaching responsibilities and demonstrate developmentally appropriate practices in an early childhood classroom.

Course: Practicum-Field Experience – Continued

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.

Content and Topics:

- Organization of physical environment, routine/schedule, and materials
- Environment as a teaching and learning tool
- California State Learning Standards and tools

Unit 2

Chapter 2: History–Social Science Domain

Key Topic 3 – Getting to Know Interactions and Strategies That Support History–Social Science

Course: Child Growth and Development

Student Learning Outcomes:

- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.
- Identify cultural, economic, political, historical contexts that affect children's development.

Objectives:

- Examine and evaluate the importance of the early years.
- Examine and evaluate the role of family in facilitating children's development.
- Identify and describe biological and environmental factors that influence children's development from conception to adolescence across domains

Content and Topics:

- Contemporary social issues that impact children's development
- The role and influence of cultural and societal impacts

Course: Child, Family and Community

Student Learning Outcomes:

- Describe social issues, changes, and transitions that affect children, families, schools, and communities.
- Identify and evaluate community support services and agencies available to families and children.

Objectives:

- Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
- Identify appropriate community resources that support children and families including at risk populations.
- Explore one's own family history and examine how it affects one's relationships with children and families.

Content and Topics:

- Interrelatedness of family, school and community as agents of socialization
- The role of group childcare and early schooling on socialization

Course: Introduction to Curriculum

Student Learning Outcomes:

- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Demonstrate ability to select safe and appropriate materials and equipment.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:

- Consideration of cultural, linguistic, ethnic, economic, ability and gender diversity including the acquisition of English as a second language in planning for young children
- Innovative and best practices in teaching
- Use of current research
- Content areas (math, science, literacy, social studies, creative arts)
- The development of the whole child (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.
- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.

Content and Topics:

- Addressing the needs of the "whole child" (physical, cognitive, social-emotional)
- The influence of environment on behavior and learning (environment as third teacher)
- Quality indicators of programs (e.g., accreditation, assessment tools)

Course: Observation and Assessment

Student Learning Outcomes:

- Identify the role of partnerships with families and other professionals in utilizing interpretations of observational data to inform teaching practices.

Objectives:

- Describe the effect of social context, child's state of health and well-being, primary language, ability, and environment on assessment processes.
- Demonstrate and apply knowledge of developmental domains to interpret observations.

Content and Topics:

- Utilization of observation and assessment data to create appropriate curricula and environments
- The value of collaboration with families and professionals
- Observation as part of the on-going process of curriculum and planning that support all children.

Course: Health, Safety and Nutrition

Student Learning Outcomes:

- Assess strategies to maximize the mental and physical health of children and adults in accordance with culturally, linguistic and developmentally sound practice.

Objectives:

- Compare and contrast various methods of collaboration with teachers and families to promote health and safety in settings for all children.
- Plan early childhood curriculum on the topics of health, safety, and nutrition in accordance with culturally, linguistic and developmentally sound practice.

Content and Topics:

- Respecting the cultural, linguistic, and developmental differences of families, teachers and children
- Nutrition guidelines, diet analysis and mealtime policies, food safety and menu planning considering culture, traditions and family choices

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Analyze various aspects of children's experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.
- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

Course: Teaching in a Diverse Society – Continued**Objectives:**

- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children's identity development and learning.
- Differentiate between various sources of diversity.
- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.
- Investigate and develop strategies to create partnerships with families on issues of bias and injustice through building mutual, collaborative relationships.

Content and Topics:

- How children think: pre-prejudice, impacts of silence, overt and covert social messages
- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships
- Anti-bias approaches to all curriculum arenas, materials, activities, goals, assessment
- Environments and curriculums that respectively reflect children's cultures and experiences and that expose children to the larger communities in which they live

Course: Practicum-Field Experience**Student Learning Outcomes:**

- Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.
- Critically assess one's own teaching experiences to guide and inform practice.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Integrate content areas and opportunities for development across the curriculum.

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Content Areas:
 - Social Studies

Unit 2

Chapter 2: History–Social Science Domain

Key Topic 4 – Universal Design, Individualizing, and Family Partnerships

Course: Child Growth and Development

Student Learning Outcomes:

- Differentiate characteristics of typical and atypical development.

Objectives:

- Examine and evaluate the importance of the early years.
- Examine and evaluate the role of family in facilitating children’s development.

Content and Topics:

- The role and influence of family and caregivers
- The role and influence of cultural and societal impacts

Course: Child, Family and Community

Student Learning Outcomes:

- Describe effective strategies that empower families and encourage family involvement in children’s development.

Objectives:

- Describe contemporary social issues and their effects on families and children.
- Develop appropriate strategies to assist families experiencing stress.

Content and Topics:

- Role of family in children’s developmental outcomes.
- Teachers’ and caregivers’ influences on children and families
- The influence of teachers’ and caregivers’ personal experience and family history on relationships with children and families.

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Demonstrate how curriculum and environment can be designed and adapted for children’s unique and individual ages, stages, and needs.

Course: Introduction to Curriculum – Continued

Content and Topics:

- Consideration of cultural, linguistic, ethnic, economic, ability and gender diversity including the acquisition of English as a second language in planning for young children
- Planning for diverse learning styles, motivations, interests, and abilities
- Innovative and best practices in teaching
- Planning for children with special needs

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.

Content and Topics:

- Attention to developmental needs of children of different ages (infant/toddler, preschool, school-age)
- The importance of developmentally, culturally, linguistically appropriate practice.
- Applying developmentally-appropriate practices to normative and atypical development

Course: Health, Safety and Nutrition

Student Learning Outcomes:

- Discuss the value of collaboration with families and the community.

Objectives:

- Compare and contrast various methods of collaboration with teachers and families to promote health and safety in settings for all children.
- Plan early childhood curriculum on the topics of health, safety, and nutrition in accordance with culturally, linguistic and developmentally sound practice.

Content and Topics:

- Respecting the cultural, linguistic, and developmental differences of families, teachers and children
- Collaboration with families and health care professionals

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

Objectives:

- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children's identity development and learning.
- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.
- Investigate and develop strategies to create partnerships with families on issues of bias and injustice through building mutual, collaborative relationships.

Content and Topics:

- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships
- Environments and curriculums that respectively reflect children's cultures and experiences and that expose children to the larger communities in which they live
- Teachers and families: teacher responsibility to assess power dynamics; and commitment to co-creation of anti-bias approaches

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children's development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Adaptations for children with diverse abilities, learning styles, and temperaments
- California State Learning Standards and tools
- Family involvement in early childhood programs

Unit 2

Chapter 2: History–Social Science Domain

Key Topic 5 – Exploring the Research Highlights of the History–Social Science Domain

Course: Child Growth and Development

Student Learning Outcomes:

- Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies.

Objectives:

- Demonstrate knowledge of current research as it applies to child development.
- Identify and describe biological and environmental factors that influence children's development from conception to adolescence across domains.

Content and Topics:

- Contemporary social issues that impact children's development
- The role and influence of cultural and societal impacts

Course: Introduction to Curriculum

Student Learning Outcomes:

- Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.

Content and Topics:

- Developmental theory as it applies to curriculum development.
- Use of current research
- The development of the whole child (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.

Course: Principles and Practices of Teaching Young Children – Continued

Objectives:

- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:

- Current and historic models, influences, and approaches in the field of early childhood
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Critique the multiple societal impacts on young children's social identity.

Objectives:

- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children's identity development and learning.

Content and Topics:

- Anti-bias approaches to all curriculum arenas, materials, activities, goals, assessment
- Teachers and families: teacher responsibility to assess power dynamics; and commitment to co-creation of anti-bias approaches

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children's development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.

Content and Topics:

- Self reflection and self-assessment through team collaboration and portfolio documentation
- Professional development skills
- California State Learning Standards and tools

Unit 3

Chapter 3: Science Domain

Getting Ready for the Unit and Connecting to Experience

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:

- Observation and assessment strategies as they apply to curriculum planning and evaluation.
- Innovative and best practices in teaching
- Program models and approaches (Reggio, Montessori, High Scope, Creative Curriculum, Waldorf, Bank Street, etc.)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.
- Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.
- Demonstrate basic observational skills.

Course: Principles and Practices of Teaching Young Children – Continued

Content and Topics:

- Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Observation and Assessment

Student Learning Outcomes:

- Compare the purpose, value and use of formal and informal observation and assessment strategies.
- Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children’s development and behavior.

Objectives:

- Identify and apply basic quantitative and qualitative observation and recording techniques.
- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.

Content and Topics:

- Historic and current tools of observation and assessment
- Utilization of observation and assessment data to create appropriate curricula and environments
- Observation as part of the on-going process of curriculum and planning that support all children.

Course: Practicum-Field Experience

Student Learning Outcomes:

- Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.
- Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.

Content and Topics:

- Authentic assessment and documentation
- Self reflection and self-assessment through team collaboration and portfolio documentation

Course: Practicum-Field Experience – Continued

Content and Topics:

- Ongoing Curriculum Development Cycle
 - a. Observation
 - b. Planning
 - c. Implementation
 - d. Evaluation
 - e. Documentation
- Content Areas:
 - Science
- California State Learning Standards and tools

Unit 3

Chapter 3: Science Domain

Key Topic 1 – Organization and Rationale of the Science Domain

Course: Child Growth and Development

Student Learning Outcomes:

- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:

- Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.
- Demonstrate knowledge of current research as it applies to child development.

Content and Topics:

- Major current and historical theoretical frameworks of child development
- The role and influence of family and caregivers

Course: Child, Family and Community

Student Learning Outcomes:

- Describe effective strategies that empower families and encourage family involvement in children's development.

Objectives:

- Describe contemporary social issues and their effects on families and children.

Content and Topics:

- Interrelatedness of family, school and community as agents of socialization
- Teachers' and caregivers' influences on children and families

Course: Introduction to Curriculum

Student Learning Outcomes:

- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Course: Introduction to Curriculum – Continued

Content and Topics:

- Innovative and best practices in teaching
- Use of current research
- Strategies for family involvement
- Content areas (science)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:

- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.
- Describe the characteristics of effective relationships and interactions between early childhood professionals, children, families, and colleagues including the importance of collaboration.

Content and Topics:

- Characteristics and roles of an effective teacher in an early childhood setting
- Collaboration and partnerships with families, colleagues, and health care professionals

Course: Practicum-Field Experience

Student Learning Outcomes:

- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.

Content and Topics:

- Self reflection and self-assessment through team collaboration and portfolio documentation
- Content Areas:
 - Science
- California State Learning Standards and tools
- Family involvement in early childhood programs

Unit 3

Chapter 3: Science Domain

Key Topic 2 – Getting to Know Environmental Factors That Support Science

Course: Child, Family and Community

Student Learning Outcomes:

- Describe effective strategies that empower families and encourage family involvement in children’s development.

Objectives:

- Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.

Content and Topics:

- Interrelatedness of family, school and community as agents of socialization
- Teachers’ and caregivers’ influences on children and families

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.
- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Demonstrate ability to select safe and appropriate materials and equipment.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:

- Developmental theory as it applies to curriculum development.
- Innovative and best practices in teaching
- Effective use of learning centers and integrated curriculum
- The effect of environment on behavior
- Content areas (math, science, literacy, social studies, creative arts)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.
- Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.
- Describe the relationship of observation, planning, implementation, and assessment in effective programming.

Content and Topics:

- Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
- Characteristics and roles of an effective teacher in an early childhood setting
- The influence of environment on behavior and learning (environment as third teacher)
- Quality indicators of programs (e.g., accreditation, assessment tools)

Course: Observation and Assessment

Student Learning Outcomes:

- Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior.

Objectives:

- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.

Content and Topics:

- Utilization of observation and assessment data to create appropriate curricula and environments
- Observation as part of the on-going process of curriculum and planning that support all children.

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children's development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
- Integrate content areas and opportunities for development across the curriculum.

Content and Topics:

- Organization of physical environment, routine/schedule, and materials
- Positive interactions with children and adults
- Content Areas:
 - Science
- Environment as a teaching and learning tool
- California State Learning Standards and tools

Unit 3

Chapter 3: Science Domain

Key Topic 3 – Getting to Know Interactions and Strategies That Support Science

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:

- Developmental theory as it applies to curriculum development.
- Planning for diverse learning styles, motivations, interests, and abilities
- Innovative and best practices in teaching
- Components of effective learning environments
- Content areas (science)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.
- Examine a variety of guidance and interaction strategies to increase children's social competence and promote a caring classroom community.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.

Content and Topics:

- Addressing the needs of the "whole child" (physical, cognitive, social-emotional)
- The importance of developmentally, culturally, linguistically appropriate practice.
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Practicum-Field Experience**Student Learning Outcomes:**

- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.
- Critically assess one's own teaching experiences to guide and inform practice.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Content Areas:
 - Science
- California State Learning Standards and tools

Unit 3

Chapter 3: Science Domain

Key Topic 4 – Universal Design, Individualizing, and Family Partnerships

Course: Child Growth and Development

Student Learning Outcomes:

- Differentiate characteristics of typical and atypical development.

Objectives:

- Examine and evaluate the importance of the early years.
- Examine and evaluate the role of family in facilitating children's development.

Content and Topics:

- The role and influence of family and caregivers
- The role and influence of cultural and societal impacts

Course: Child, Family and Community

Student Learning Outcomes:

- Describe effective strategies that empower families and encourage family involvement in children's development.

Objectives:

- Describe contemporary social issues and their effects on families and children.
- Develop appropriate strategies to assist families experiencing stress.

Content and Topics:

- Role of family in children's developmental outcomes.
- Teachers' and caregivers' influences on children and families
- The influence of teachers' and caregivers' personal experience and family history on relationships with children and families.

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Demonstrate how curriculum and environment can be designed and adapted for children's unique and individual ages, stages, and needs.

Course: Introduction to Curriculum – Continued

Content and Topics:

- Consideration of cultural, linguistic, ethnic, economic, ability and gender diversity including the acquisition of English as a second language in planning for young children
- Planning for diverse learning styles, motivations, interests, and abilities
- Innovative and best practices in teaching
- Planning for children with special needs

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.

Content and Topics:

- Attention to developmental needs of children of different ages (infant/toddler, preschool, school-age)
- The importance of developmentally, culturally, linguistically appropriate practice.
- Applying developmentally-appropriate practices to normative and atypical development

Course: Health, Safety, and Nutrition

Student Learning Outcomes:

- Discuss the value of collaboration with families and the community.

Objectives:

- Compare and contrast various methods of collaboration with teachers and families to promote health and safety in settings for all children.
- Plan early childhood curriculum on the topics of health, safety, and nutrition in accordance with culturally, linguistic and developmentally sound practice.

Content and Topics:

- Respecting the cultural, linguistic, and developmental differences of families, teachers and children
- Collaboration with families and health care professionals

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

Objectives:

- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children's identity development and learning.
- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.
- Investigate and develop strategies to create partnerships with families on issues of bias and injustice through building mutual, collaborative relationships.

Content and Topics:

- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships
- Environments and curriculums that respectively reflect children's cultures and experiences and that expose children to the larger communities in which they live
- Teachers and families: teacher responsibility to assess power dynamics; and commitment to co-creation of anti-bias approaches

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children's development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Adaptations for children with diverse abilities, learning styles, and temperaments
- California State Learning Standards and tools
- Family involvement in early childhood programs

Unit 3

Chapter 3: Science Domain

Key Topic 5 – Exploring the Research Highlights of the Science Domain

Course: Child Growth and Development

Student Learning Outcomes:

- Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies.

Objectives:

- Demonstrate knowledge of current research as it applies to child development.
- Identify and describe biological and environmental factors that influence children's development from conception to adolescence across domains

Content and Topics:

- Contemporary social issues that impact children's development
- The role and influence of cultural and societal impacts

Course: Introduction to Curriculum

Student Learning Outcomes:

- Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.

Content and Topics:

- Developmental theory as it applies to curriculum development.
- Use of current research
- The development of the whole child (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.

Course: Principles and Practices of Teaching Young Children – Continued

Objectives:

- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:

- Current and historic models, influences, and approaches in the field of early childhood
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Critique the multiple societal impacts on young children's social identity.

Objectives:

- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children's identity development and learning.

Content and Topics:

- Anti-bias approaches to all curriculum arenas, materials, activities, goals, assessment
- Teachers and families: teacher responsibility to assess power dynamics; and commitment to co-creation of anti-bias approaches

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children's development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.

Content and Topics:

- Self reflection and self-assessment through team collaboration and portfolio documentation
- Professional development skills
- California State Learning Standards and tools



Unit 4

California Preschool Curriculum Framework as a Resource for Planning and Integrating Curriculum

Key Topic 1: Integrating the History–Social Science or Science Domains with Other Domains

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:

- Innovative and best practices in teaching
- Use of current research
- Effective use of learning centers and integrated curriculum
- Content areas (math, science, literacy, social studies, creative arts)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.
- Examine a variety of guidance and interaction strategies to increase children's social competence and promote a caring classroom community.
- Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Demonstrate basic observational skills.

**Course: Principles and Practices of Teaching Young Children – Continued**

Objectives:

- Describe the relationship of observation, planning, implementation, and assessment in effective programming.

Content and Topics:

- Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
- The importance of developmentally, culturally, linguistically appropriate practice.
- Importance of positive teacher-child relationships and interactions
- The influence of environment on behavior and learning (environment as third teacher)

Course: Observation and Assessment

Student Learning Outcomes:

- Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children’s development and behavior.

Objectives:

- Identify and apply basic quantitative and qualitative observation and recording techniques.
- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.
- Demonstrate and apply knowledge of developmental domains to interpret observations.

Content and Topics:

- National and State standards for learning and assessment (e.g., NAEYC’s position statement on assessment)
- Utilization of observation and assessment data to create appropriate curricula and environments
- Observation as part of the on-going process of curriculum and planning that support all children.

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.



Course: Practicum-Field Experience – Continued

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children
- Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences
- Integrate content areas and opportunities for development across the curriculum

Content and Topics:

- Authentic assessment and documentation
- Content Areas
 - a. Language
 - b. Literacy
 - c. Math
 - d. Science
 - e. Social Studies
 - f. Visual and performing arts
- Integration of content areas across curriculum
- Environment as a teaching and learning tool
- California State Learning Standards and tools



Unit 4

California Preschool Curriculum Framework as a Resource for Planning and Integrating Curriculum

Key Topic 2: Integrated Planning Using California's Early Learning and Development System

Course: Introduction to Curriculum

Student Learning Outcomes:

- Demonstrate an understanding of the many aspects of the teachers' role in early childhood programs.
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.
- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Demonstrate how curriculum and environment can be designed and adapted for children's unique and individual ages, stages, and needs.

Content and Topics:

- Observation and assessment strategies as they apply to curriculum planning and evaluation.
- Use of current research
- Components of effective learning environments
- Planning for children with special needs
- The continuing cycle of observation, assessment, curriculum planning, documentation.

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Interpret best and promising teaching and care practices as defined within the field of early care and education's history, range of delivery systems, program types and philosophies and ethical standards.
- Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.

Objectives:

- Differentiate between program types (age, funding stream, purpose, policies, environments, etc.), delivery systems, quality standards, licensing and regulation structures in early childhood settings.

**Course: Principles and Practices of Teaching Young Children – Continued**

Objectives:

- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.
- Describe the relationship of observation, planning, implementation, and assessment in effective programming.

Content and Topics:

- Current and historic models, influences, and approaches in the field of early childhood
- The importance of developmentally, culturally, linguistically appropriate practice.
- Applying developmentally-appropriate practices to normative and atypical development

Course: Observation and Assessment

Student Learning Outcomes:

- Compare the purpose, value and use of formal and informal observation and assessment strategies.
- Evaluate the characteristics, strengths and limitations of common assessment tools.
- Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior.

Objectives:

- Identify and apply basic quantitative and qualitative observation and recording techniques.
- Compare and analyze historic and currently recognized assessment tools.
- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.
- Demonstrate knowledge of the role of observation and assessment in intervention.

Content and Topics:

- National and State standards for learning and assessment (e.g., NAEYC's position statement on assessment)
- Utilization of observation and assessment data to create appropriate curricula and environments
- Linkage between child development theory and research to observation and assessment
- Role of assessment in intervention



Course: Practicum-Field Experience

Student Learning Outcomes:

- Design, implement and evaluate curriculum activities that are based on observation and assessment of young children.
- Critically assess one's own teaching experiences to guide and inform practice.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.
- Utilize an appropriate recordkeeping system to document, assess and track children's progress.
- Demonstrate professional and ethical behavior.

Content and Topics:

- Authentic assessment and documentation
- Self-reflection and self-assessment through team collaboration and portfolio documentation
- Content Areas
 - a. Language
 - b. Literacy
 - c. Math
 - d. Science
 - e. Social Studies
 - f. Visual and performing arts
- California State Learning Standards and tools



Unit 4

California Preschool Curriculum Framework as a Resource for Planning and Integrating Curriculum

Key Topic 3: Young Dual Language Learners

Course: Child Growth and Development

Student Learning Outcomes:

- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:

- Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.
- Demonstrate knowledge of current research as it applies to child development.
- Examine and evaluate the importance of the early years.

Content and Topics:

- Major current and historical theoretical frameworks of child development
- Play-Years Development (including but not limited to physical, social/emotional, cognitive, language, special needs, risk factors, and care and education at each level).
- Bilingual development and theories of language learning and bilingualism

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.
- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Demonstrate how curriculum and environment can be designed and adapted for children's unique and individual ages, stages, and needs.
- Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

**Course: Introduction to Curriculum – Continued**

Content and Topics:

- Consideration of cultural, linguistic, ethnic, economic, ability and gender diversity including the acquisition of English as a second language in planning for young children
- Planning for diverse learning styles, motivations, interests, and abilities
- Effective use of learning centers and integrated curriculum
- The effect of environment on behavior

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:

- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.

Content and Topics:

- Current and historic models, influences, and approaches in the field of early childhood
- The importance of developmentally, culturally, linguistically appropriate practice.

Course: Teaching in a Diverse Society

Student Learning Outcomes:

- Analyze various aspects of children's experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.
- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

Objectives:

- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children's identity development and learning.
- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.

Content and Topics:



- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships

Course: Teaching in a Diverse Society – Continued

Content and Topics:

- Anti-bias approaches to all curriculum arenas, materials, activities, goals, assessment
- Children's books and media to support identity development and anti-bias thinking and represent home language, culture and traditions, stories and songs

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children's development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children's development and learning to improve teaching practices for all children.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Adaptations for children with diverse abilities, learning styles, and temperaments
- California State Learning Standards and tools



Unit 4

California Preschool Curriculum Framework as a Resource for Planning and Integrating Curriculum

Key Topic 4: Exploring Key Elements of the Curriculum Framework Across Domains

Course: Introduction to Curriculum

Student Learning Outcomes:

- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:

- Identify and evaluate teaching behaviors for research-based best practices.
- Identify ways in which the environment functions as an essential component of curriculum.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:

- Innovative and best practices in teaching
- Use of current research
- Components of effective learning environments
- Content areas (math, science, literacy, social studies, creative arts)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.
- Examine a variety of guidance and interaction strategies to increase children's social competence and promote a caring classroom community.

Objectives:

- Identify children's developmental processes and describe adaptations to curriculum and environments needed to support all children.
- Describe the characteristics of effective relationships and interactions between early childhood professionals, children, families, and colleagues including the importance of collaboration.

**Course: Principles and Practices of Teaching Young Children – Continued**

Content and Topics:

- Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
- Importance of positive teacher-child relationships and interactions
- The influence of environment on behavior and learning (environment as third teacher)

Course: Practicum-Field Experience

Student Learning Outcomes:

- Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.

Objectives:

- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
- Integrate content areas and opportunities for development across the curriculum

Content and Topics:

- Organization of physical environment, routine/schedule, and materials
- Positive interactions with children and adults
- Content Areas
 - a. Language
 - b. Literacy
 - c. Math
 - d. Science
 - e. Social Studies
 - f. Visual and performing arts
- Integration of content areas across curriculum
- California State Learning Standards and tools

Appendix B

The Foundations

Social-Emotional Development

Self

1.0 Self-Awareness

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Describe their physical characteristics, behavior, and abilities positively.	1.1 Compare their characteristics with those of others and display a growing awareness of their psychological characteristics, such as thoughts and feelings.

2.0 Self-Regulation

2.1 Need adult guidance in managing their attention, feelings, and impulses and show some effort at self-control.	2.1 Regulate their attention, thoughts, feelings, and impulses more consistently, although adult guidance is sometimes necessary.
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3.0 Social and Emotional Understanding

3.1 Seek to understand people's feelings and behavior, notice diversity in human characteristics, and are interested in how people are similar and different.	3.1 Begin to comprehend the mental and psychological reasons people act as they do and how they contribute to differences between people.
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4.0 Empathy and Caring

4.1 Demonstrate concern for the needs of others and people in distress.	4.1 Respond to another's distress and needs with sympathetic caring and are more likely to assist.
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5.0 Initiative in Learning

5.1 Enjoy learning and are confident in their abilities to make new discoveries although may not persist at solving difficult problems.	5.1 Take greater initiative in making new discoveries, identifying new solutions, and persisting in trying to figure things out.
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Social Interaction

1.0 Interactions with Familiar Adults

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Interact with familiar adults comfortably and competently, especially in familiar settings.	1.1 Participate in longer and more reciprocal interactions with familiar adults and take greater initiative in social interaction.

2.0 Interactions with Peers

2.1 Interact easily with peers in shared activities that occasionally become cooperative efforts.	2.1 More actively and intentionally cooperate with each other.
2.2 Participate in simple sequences of pretend play.	2.2 Create more complex sequences of pretend play that involve planning, coordination of roles, and cooperation.
2.3 Seek assistance in resolving peer conflict, especially when disagreements have escalated into physical aggression.	2.3 Negotiate with each other, seeking adult assistance when needed, and increasingly use words to respond to conflict. Disagreements may be expressed with verbal taunting in addition to physical aggression.

3.0 Group Participation

3.1 Participate in group activities and are beginning to understand and cooperate with social expectations, group rules, and roles.	3.1 Participate positively and cooperatively as group members.
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4.0 Cooperation and Responsibility

4.1 Seek to cooperate with adult instructions but their capacities for self-control are limited, especially when they are frustrated or upset.	4.1 Have growing capacities for self-control and are motivated to cooperate in order to receive adult approval and think approvingly of themselves.
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Relationships

1.0 Attachments to Parents

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Seek security and support from their primary family attachment figures.	1.1 Take greater initiative in seeking support from their primary family attachment figures.
1.2 Contribute to maintaining positive relationships with their primary family attachment figures.	1.2 Contribute to positive mutual cooperation with their primary family attachment figures.
1.3 After experience with out-of-home care, manage departures and separations from primary family attachment figures with the teacher's assistance.	1.3 After experience with out-of-home care, comfortably depart from their primary family attachment figures. Also maintain well-being while apart from primary family attachment figures during the day.

2.0 Close Relationships with Teachers and Caregivers

2.1 Seek security and support from their primary teachers and caregivers.	2.1 Take greater initiative in seeking the support of their primary teachers and caregivers.
2.2 Contribute to maintaining positive relationships with their primary teachers and caregivers.	2.2 Contribute to positive mutual cooperation with their primary teachers and caregivers.

3.0 Friendships

3.1 Choose to play with one or two special peers whom they identify as friends.	3.1 Friendships are more reciprocal, exclusive, and enduring.
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Language and Literacy

Listening and Speaking

1.0 Language Use and Conventions

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Use language to communicate with others in familiar social situations for a variety of basic purposes, including describing, requesting, commenting, acknowledging, greeting, and rejecting.	1.1 Use language to communicate with others in both familiar and unfamiliar social situations for a variety of basic and advanced purposes, including reasoning, predicting, problem solving, and seeking new information.
1.2 Speak clearly enough to be understood by familiar adults and children.	1.2 Speak clearly enough to be understood by both familiar and unfamiliar adults and children.
1.3 Use accepted language and style during communication with familiar adults and children.	1.3 Use accepted language and style during communication with both familiar and unfamiliar adults and children.
1.4 Use language to construct short narratives that are real or fictional.	1.4 Use language to construct extended narratives that are real or fictional.

2.0 Vocabulary

2.1 Understand and use accepted words for objects, actions, and attributes encountered frequently in both real and symbolic contexts.	2.1 Understand and use an increasing variety and specificity of accepted words for objects, actions, and attributes encountered in both real and symbolic contexts.
2.2 Understand and use accepted words for categories of objects encountered and used frequently in everyday life.	2.2 Understand and use accepted words for categories of objects encountered in everyday life.
2.3 Understand and use simple words that describe the relations between objects.	2.3 Understand and use both simple and complex words that describe the relations between objects.

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3.0 Grammar

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
3.1 Understand and use increasingly complex and longer sentences, including sentences that combine two phrases or two to three concepts to communicate ideas.	3.1 Understand and use increasingly complex and longer sentences, including sentences that combine two to three phrases or three to four concepts to communicate ideas.
3.2 Understand and typically use age-appropriate grammar, including accepted word forms, such as subject-verb agreement, progressive tense, regular past tense, regular plurals, pronouns, and possessives.	3.2 Understand and typically use age-appropriate grammar, including accepted word forms, such as subject-verb agreement, progressive tense, regular and irregular past tense, regular and irregular plurals, pronouns, and possessives.

Reading**1.0 Concepts about Print**

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Begin to display appropriate book-handling behaviors and begin to recognize print conventions.	1.1 Display appropriate book-handling behaviors and knowledge of print conventions.
1.2 Recognize print as something that can be read.	1.2 Understand that print is something that is read and has specific meaning.

2.0 Phonological Awareness

	2.1 Orally blend and delete words and syllables without the support of pictures or objects.
	2.2 Orally blend the onsets, rimes, and phonemes of words and orally delete the onsets of words, <u>with</u> the support of pictures or objects.

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3.0 Alphabetics and Word/Print Recognition

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
3.1 Recognize the first letter of own name.	3.1 Recognize own name or other common words in print.
3.2 Match some letter names to their printed form.	3.2 Match more than half of uppercase letter names and more than half of lowercase letter names to their printed form.
	3.3 Begin to recognize that letters have sounds.

4.0 Comprehension and Analysis of Age-Appropriate Text

4.1 Demonstrate knowledge of main characters or events in a familiar story (e.g., who, what, where) through answering questions (e.g., recall and simple inferencing), retelling, reenacting, or creating artwork.	4.1 Demonstrate knowledge of details in a familiar story, including characters, events, and ordering of events through answering questions (particularly summarizing, predicting, and inferencing), retelling, reenacting, or creating artwork.
4.2 Demonstrate knowledge from informational text through labeling, describing, playing, or creating artwork.	4.2 Use information from informational text in a variety of ways, including describing, relating, categorizing, or comparing and contrasting.

5.0 Literacy Interest and Response

5.1 Demonstrate enjoyment of literacy and literacy-related activities.	5.1 Demonstrate, with increasing independence, enjoyment of literacy and literacy-related activities.
5.2 Engage in routines associated with literacy activities.	5.2 Engage in more complex routines associated with literacy activities.

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Writing

1.0 Writing Strategies

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Experiment with grasp and body position using a variety of drawing and writing tools.	1.1 Adjust grasp and body position for increased control in drawing and writing.
1.2 Write using scribbles that are different from pictures.	1.2 Write letters or letter-like shapes to represent words or ideas.
1.3 Write marks to represent own name.	1.3 Write first name nearly correctly.

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English-Language Development

Listening

1.0 Children listen with understanding.

Focus: Beginning words

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
1.1 Attend to English oral language in both real and pretend activity, relying on intonation, facial expressions, or the gestures of the speaker.	1.1 Demonstrate understanding of words in English for objects and actions as well as phrases encountered frequently in both real and pretend activity.	1.1 Begin to demonstrate an understanding of a larger set of words in English (for objects and actions, personal pronouns, and possessives) in both real and pretend activity.

Focus: Requests and directions

1.2 Begin to follow simple directions in English, especially when there are contextual cues.	1.2 Respond appropriately to requests involving one step when personally directed by others, which may occur with or without contextual cues.	1.2 Follow directions that involve a one- or two-step sequence, relying less on contextual cues.
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Focus: Basic and advanced concepts

1.3 Demonstrate an understanding of words related to basic and advanced concepts in the home language that are appropriate for the age (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).	1.3 Begin to demonstrate an understanding of words in English related to basic concepts.	1.3 Demonstrate an understanding of words in English related to more advanced concepts.
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Speaking

1.0 Children use nonverbal and verbal strategies to communicate with others.

Focus: Communication of needs

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
1.1 Use nonverbal communication, such as gestures or behaviors, to seek attention, request objects, or initiate a response from others.	1.1 Combine nonverbal and some verbal communication to be understood by others (may code-switch—that is, use the home language and English—and use telegraphic and/or formulaic speech).	1.1 Show increasing reliance on verbal communication in English to be understood by others.

Focus: Vocabulary production

1.2 Use vocabulary in the home language that is age-appropriate (as reported by parents, teachers, assistants, or others and with the assistance of an interpreter if necessary).	1.2 Begin to use English vocabulary, mainly consisting of concrete nouns and with some verbs and pronouns (telegraphic speech).	1.2 Use new English vocabulary to share knowledge of concepts.
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Focus: Conversation

1.3 Converse in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).	1.3 Begin to converse with others, using English vocabulary but may code-switch (i.e., use the home language and English).	1.3 Sustain a conversation in English about a variety of topics.
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1.0 Children use nonverbal and verbal strategies to communicate with others.

Focus: Utterance length and complexity

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
1.4 Use a range of utterance lengths in the home language that is age-appropriate (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).	1.4 Use two- and three-word utterances in English to communicate.	1.4 Increase utterance length in English by adding appropriate possessive pronouns (e.g., his, her); conjunctions (e.g., and, or); or other elements (e.g., adjectives, adverbs).

Focus: Grammar

1.5 Use age-appropriate grammar in the home language (e.g., plurals; simple past tense; use of subject, verb, object), sometimes with errors (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).	1.5 Begin to use some English grammatical markers (e.g., <i>-ing</i> or plural <i>-s</i>) and, at times, apply the rules of grammar of the home language to English.	1.5 Expand the use of different forms of grammar in English (e.g., plurals; simple past tense; use of subject, verb and object), sometimes with errors.
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Focus: Inquiry

1.6 Ask a variety of types of questions (e.g., "what," "why," "how," "when," and "where") in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).	1.6 Begin to use "what" and "why" questions in English, sometimes with errors.	1.6 Begin to use "what," "why," "how," "when," and "where" questions in more complete forms in English, sometimes with errors.
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2.0 Children begin to understand and use social conventions in English.

Focus: Social conventions

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
2.1 Use social conventions of the home language (as reported by teachers, parents, assistants, or others, with the assistance of an interpreter if necessary).	2.1 Demonstrate a beginning understanding of English social conventions.	2.1 Appropriately use words and tone of voice associated with social conventions in English.

3.0 Children use language to create oral narratives about their personal experiences.

Focus: Narrative development

3.1 Create a narrative in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).	3.1 Begin to use English to talk about personal experiences; may complete a narrative in the home language while using some English (i.e., code-switching).	3.1 Produce simple narratives in English that are real or fictional.
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Reading

1.0 Children demonstrate an appreciation and enjoyment of reading and literature.

Focus: Participate in read-aloud activity

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
1.1 Attend to an adult reading a short storybook written in the home language or a storybook written in English if the story has been read in the home language.	1.1 Begin to participate in reading activities, using books written in English when the language is predictable.	1.1 Participate in reading activities, using a variety of genres that are written in English (e.g., poetry, fairy tales, concept books, and informational books).

Focus: Interest in books and reading

1.2 “Read” familiar books written in the home language or in English when encouraged by others and, in the home language, talk about the books.	1.2 Choose to “read” familiar books written in the home language or in English with increasing independence and, in the home language or in English, talk about the books.	1.2 Choose to “read” familiar books written in English with increasing independence and talk about the books in English.
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2.0 Children show an increasing understanding of book reading.

Focus: Personal connections to the story

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
2.1 Begin to identify and relate to a story from their own life experiences in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).	2.1 Describe their own experiences related to the topic of the story, using telegraphic and/or formulaic speech in English.	2.1 Begin to engage in extended conversations in English about stories.

Focus: Story structure

2.2 Retell a story in the home language when read or told a story in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).	2.2 Retell a story using the home language and some English when read or told a story in English.	2.2 Retell in English the majority of a story read or told in English.
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3.0 Children demonstrate an understanding of print conventions.

Focus: Book handling

3.1 Begin to understand that books are read in a consistent manner (e.g., in English, pages are turned from right to left and the print is read from top to bottom, left to right; this may vary in other languages).	3.1 Continue to develop an understanding of how to read a book, sometimes applying knowledge of print conventions from the home language.	3.1 Demonstrate an understanding that print in English is organized from left to right, top to bottom, and that pages are turned from right to left when a book is read.
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4.0 Children demonstrate awareness that print carries meaning.***Focus: Environmental print***

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
4.1 Begin to recognize that symbols in the environment (classroom, community, or home) carry a consistent meaning in the home language or in English.	4.1 Recognize in the environment (classroom, community, or home) some familiar symbols, words, and print labels in the home language or in English.	4.1 Recognize in the environment (classroom, community, or home) an increasing number of familiar symbols, words, and print labels in English.

5.0 Children demonstrate progress in their knowledge of the alphabet in English.***Focus: Letter awareness***

5.1 Interact with material representing the letters of the English alphabet.	5.1 Begin to talk about the letters of the English alphabet while playing and interacting with them; may code-switch (use the home language and English).	5.1 Begin to demonstrate understanding that the letters of the English alphabet are symbols used to make words.
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Focus: Letter recognition

5.2 Begin to recognize the first letter in their own name or the character for their own name in the home language or English.	5.2 Identify some letters of the alphabet in English.	5.2 Identify ten or more letters of the alphabet in English.
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6.0 Children demonstrate phonological awareness.***Focus: Rhyming***

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
6.1 Listen attentively and begin to participate in simple songs, poems, and finger plays that emphasize rhyme in the home language or in English.	6.1 Begin to repeat or recite simple songs, poems, and finger plays that emphasize rhyme in the home language or in English.	6.1 Repeat, recite, produce, or initiate simple songs, poems, and finger plays that emphasize rhyme in English.

Focus: Onset (initial sound)

6.2 Listen attentively and begin to participate in simple songs, poems, and finger plays in the home language or in English.	6.2 Begin to recognize words that have a similar onset (initial sound) in the home language or in English, with support.	6.2 Recognize and produce words that have a similar onset (initial sound) in English.
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Focus: Sound differences in the home language and English

6.3 Attend to and manipulate different sounds or tones in words in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary.)	6.3 Begin to use words in English with phonemes (individual units of meaningful sound in a word or syllable) that are different from the home language.	6.3 Begin to orally manipulate sounds (onsets, rimes, and phonemes) in words in English, with support.
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Writing

1.0 Children use writing to communicate their ideas.

Focus: Writing as communication

<i>Beginning</i>	<i>Middle</i>	<i>Later</i>
1.1 Begin to understand that writing can be used to communicate.	1.1 Begin to understand that what is said in the home language or in English can be written down and read by others.	1.1 Develop an increasing understanding that what is said in English can be written down and read by others.

Focus: Writing to represent words or ideas

1.2 Begin to demonstrate an awareness that written language can be in the home language or in English.	1.2 Begin to use marks or symbols to represent spoken language in the home language or in English.	1.2 Continue to develop writing by using letters or letter-like marks to represent their ideas in English.
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Focus: Writing their name

1.3 Write marks to represent their own name in a way that may resemble how it is written in the home language.	1.3 Attempt to copy their own name in English or in the writing system of their home language.	1.3 Write their first name on their own in English nearly correctly, using letters of the English alphabet to accurately represent pronunciation in their home language.
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Mathematics

Number Sense

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.0 Children begin to understand numbers and quantities in their everyday environment.	1.0 Children expand their understanding of numbers and quantities in their everyday environment.
1.1 Recite numbers in order to ten with increasing accuracy.	1.1 Recite numbers in order to twenty with increasing accuracy.
1.2 Begin to recognize and name a few written numerals.	1.2 Recognize and know the name of some written numerals.
1.3 Identify, without counting, the number of objects in a collection of up to three objects (i.e., subitize).	1.3 Identify, without counting, the number of objects in a collection of up to four objects (i.e., subitize).
1.4 Count up to five objects, using one-to-one correspondence (one object for each number word) with increasing accuracy.	1.4 Count up to ten objects, using one-to-one correspondence (one object for each number word) with increasing accuracy.
1.5 Use the number name of the last object counted to answer the question, "How many . . . ?"	1.5 Understand, when counting, that the number name of the last object counted represents the total number of objects in the group (i.e., cardinality).
2.0 Children begin to understand number relationships and operations in their everyday environment.	2.0 Children expand their understanding of number relationships and operations in their everyday environment.
2.1 Compare visually (with or without counting) two groups of objects that are obviously equal or nonequal and communicate, "more" or "same."	2.1 Compare, by counting or matching, two groups of up to five objects and communicate, "more," "same as," or "fewer" (or "less").
2.2 Understand that adding to (or taking away) one or more objects from a group will increase (or decrease) the number of objects in the group.	2.2 Understand that adding one or taking away one changes the number in a small group of objects by exactly one.

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<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
2.3 Understand that putting two groups of objects together will make a bigger group.	2.3 Understand that putting two groups of objects together will make a bigger group and that a group of objects can be taken apart into smaller groups.
2.4 Solve simple addition and subtraction problems nonverbally (and often verbally) with a very small number of objects (sums up to 4 or 5).	2.4 Solve simple addition and subtraction problems with a small number of objects (sums up to 10), usually by counting.

Algebra and Functions (Classification and Patterning)

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.0 Children begin to sort and classify objects in their everyday environment.	1.0 Children expand their understanding of sorting and classifying objects in their everyday environment.
1.1 Sort and classify objects by one attribute into two or more groups, with increasing accuracy.	1.1 Sort and classify objects by one or more attributes, into two or more groups, with increasing accuracy (e.g., may sort first by one attribute and then by another attribute).
2.0 Children begin to recognize simple, repeating patterns.	2.0 Children expand their understanding of simple, repeating patterns.
2.1 Begin to identify or recognize a simple repeating pattern.	2.1 Recognize and duplicate simple repeating patterns.
2.2 Attempt to create a simple repeating pattern or participate in making one.	2.2 Begin to extend and create simple repeating patterns.

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Measurement

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.0 Children begin to compare and order objects.	1.0 Children expand their understanding of comparing, ordering, and measuring objects.
1.1 Demonstrate awareness that objects can be compared by length, weight, or capacity, by noting gross differences, using words such as <i>bigger, longer, heavier, or taller</i> , or by placing objects side by side to compare length.	1.1 Compare two objects by length, weight, or capacity directly (e.g., putting objects side by side) or indirectly (e.g., using a third object).
1.2 Order three objects by size.	1.2 Order four or more objects by size.
	1.3 Measure length using multiple duplicates of the same-size concrete units laid end to end.

Geometry

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.0 Children begin to identify and use common shapes in their everyday environment.	1.0 Children identify and use a variety of shapes in their everyday environment.
1.1 Identify simple two-dimensional shapes, such as a circle and square.	1.1 Identify, describe, and construct a variety of different shapes, including variations of a circle, triangle, rectangle, square, and other shapes.
1.2 Use individual shapes to represent different elements of a picture or design.	1.2 Combine different shapes to create a picture or design.
2.0 Children begin to understand positions in space.	2.0 Children expand their understanding of positions in space.
2.1 Identify positions of objects and people in space, such as in/on/under, up/down, and inside/outside.	2.1 Identify positions of objects and people in space, including in/on/under, up/down, inside/outside, beside/between, and in front/behind.

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Mathematical Reasoning

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.0 Children use mathematical thinking to solve problems that arise in their everyday environment.	1.0 Children expand the use of mathematical thinking to solve problems that arise in their everyday environment.
1.1 Begin to apply simple mathematical strategies to solve problems in their environment.	1.1 Identify and apply a variety of mathematical strategies to solve problems in their environment.

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Visual and Performing Arts

Visual Art

1.0 Notice, Respond, and Engage

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Notice and communicate about objects or forms that appear in art.	1.1 Communicate about elements appearing in art (such as line, texture, or perspective), and describe how objects are positioned in the artwork.
1.2 Create marks with crayons, paints, and chalk and then identify them; mold and build with dough and clay and then identify them.	1.2 Begin to plan art and show increasing care and persistence in completing it.
1.3 Enjoy and engage with displays of visual art, inside or outside the classroom. Begin to express preferences for some art activities or materials.	1.3 Enjoy and engage with displays of visual art. May expand critical assessment of visual art to include preferences for types of artwork or art activities.
1.4 Choose own art for display in the classroom or for inclusion in a portfolio or book and briefly explain choice.	1.4 Choose own art for display in the classroom or for inclusion in a portfolio or book and explain her or his ideas in some detail.

2.0 Develop Skills in Visual Art

2.1 Make straight and curved marks and lines; begin to draw rough circle shapes.	2.1 Draw single circle and add lines to create representations of people and things.
2.2 Begin to create paintings or drawings that suggest people, animals, and objects.	2.2 Begin to create representative paintings or drawings that approximate or depict people, animals, and objects.

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2.0 Develop Skills in Visual Art (Continued)

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
2.3 Make somewhat regular-shaped balls and coils out of dough or clay.	2.3 Make more representational forms out of dough or clay, using tools (for example, a rolling pin or a garlic press).
2.4 Begin to use paper and other materials to assemble simple collages.	2.4 Use paper and other materials to make two- and three-dimensional assembled works.
2.5 Begin to recognize and name materials and tools used for visual arts.	2.5 Recognize and name materials and tools used for visual arts.
2.6 Demonstrate some motor control when working with visual arts tools.	2.6 Demonstrate increasing coordination and motor control when working with visual arts tools.

3.0 Create, Invent, and Express Through Visual Art

3.1 Create art and sometimes name the work.	3.1 Intentionally create content in a work of art.
3.2 Begin to draw figures or objects.	3.2 Draw more detailed figures or objects with more control of line and shape.
3.3 Begin to use intensity of marks and color to express a feeling or mood.	3.3 Use intensity of marks and color more frequently to express a feeling or mood.

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Music

1.0 Notice, Respond, and Engage

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Sustain attention and begin to reflect verbally about music; demonstrate familiarity with words that describe music.	1.1 Verbally reflect on music and describe music by using an expanded vocabulary.
1.2 Recognize simple repeating melody and rhythm patterns.	1.2 Demonstrate more complex repeating melody and rhythm patterns.
1.3 Identify the sources of a limited variety of musical sounds.	1.3 Identify the sources of a wider variety of music and music-like sounds.
1.4 Use body movement freely to respond loosely to beat—loud versus quiet (dynamics)—and tempo.	1.4 Use body movement freely and more accurately to respond to beat, dynamics, and tempo of music.

2.0 Develops Skills in Music

2.1 Begin to discriminate between different voices and certain instrumental and environmental sounds. Follow words in a song.	2.1 Become more able to discriminate between different voices and various instrumental and environmental sounds. Follow words in a song.
2.2 Explore vocally; sing repetitive patterns and parts of songs alone and with others.	2.2 Extend vocal exploration; sing repetitive patterns and entire songs alone and with others in wider ranges of pitch.

3.0 Create, Invent, and Express Through Music

3.1 Explore vocal and instrumental skills and use instruments to produce simple rhythms and tones.	3.1 Continue to apply vocal and instrumental skills and use instruments to produce more complex rhythms, tones, melodies, and songs.
3.2 Move or use body to demonstrate beat and tempo, often spontaneously.	3.2 Move or use body to demonstrate beat, tempo, and style of music, often intentionally.
3.3 Improvise vocally and instrumentally.	3.3 Explore, improvise, and create brief melodies with voice or instrument.

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Drama

1.0 Notice, Respond, and Engage

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Demonstrate an understanding of simple drama vocabulary.	1.1 Demonstrate a broader understanding of drama vocabulary.
1.2 Identify preferences and interests related to participating in drama.	1.2 Explain preferences and interests related to participating in drama.
1.3 Demonstrate knowledge of simple plot of a participatory drama.	1.3 Demonstrate knowledge of extended plot and conflict of a participatory drama.

2.0 Develop Skills to Create, Invent, and Express Through Drama

2.1 Demonstrate basic role-play skills with imagination and creativity.	2.1 Demonstrate extended role-play skills with increased imagination and creativity.
2.2 Add props and costumes to enhance dramatization of familiar stories and fantasy play with peers.	2.2 Create and use an increasing variety of props, costumes and scenery to enhance dramatization of familiar stories and fantasy play with peers.

Dance

1.0 Notice, Respond, and Engage

1.1 Engage in dance movements.	1.1 Further engage and participate in dance movements.
1.2 Begin to understand and use vocabulary related to dance.	1.2 Connect dance terminology with demonstrated steps.
1.3 Respond to instruction of one skill at a time during movement, such as a jump or fall.	1.3 Respond to instruction of more than one skill at a time in movement, such as turning, leaping, and turning again. Often initiate a sequence of skills.
1.4 Explore and use different steps and movements to create or form a dance.	1.4 Use understanding of different steps and movements to create or form a dance.

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2.0 Develop Skills in Dance

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
2.1 Begin to be aware of own body in space.	2.1 Continue to develop awareness of body in space.
2.2 Begin to be aware of other people in dance or when moving in space.	2.2 Show advanced awareness and coordination of movement with other people in dance or when moving in space.
2.3 Begin to respond to tempo and timing through movement.	2.3 Demonstrate some advanced skills in responding to tempo and timing through movement.

3.0 Create, Invent, and Express Through Dance

3.1 Begin to act out and dramatize through music and movement patterns.	3.1 Extend understanding and skills for acting out and dramatizing through music and movement patterns.
3.2 Invent dance movements.	3.2 Invent and recreate dance movements.
3.3 Improvise simple dances that have a beginning and an end.	3.3 Improvise more complex dances that have a beginning, middle, and an end.
3.4 Communicate feelings spontaneously through dance and begin to express simple feelings intentionally through dance when prompted by adults.	3.4 Communicate and express feelings intentionally through dance.

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Physical Development

Fundamental Movement Skills

1.0 Balance

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Maintain balance while holding still; sometimes may need assistance.	1.1 Show increasing balance and control when holding still.
1.2 Maintain balance while in motion when moving from one position to another or when changing directions, though balance may not be completely stable.	1.2 Show increasing balance control while moving in different directions and when transitioning from one movement or position to another.

2.0 Locomotor Skills

2.1 Walk with balance, not always stable, oppositional arm movements still developing, and relatively wide base of support (space between feet).	2.1 Walk with balance, oppositional arm movements, and relatively narrow base of support (space between feet).
2.2 Run with short stride length and feet off the ground for a short period of time. May show inconsistent opposition of arms and legs.	2.2 Run with a longer stride length and each foot off the ground for a greater length of time. Opposition of arms and legs is more consistent.
2.3 Jump for height (up or down) and for distance with beginning competence.	2.3 Jump for height (up or down) and for distance with increasing competence. Uses arm swing to aid forward jump.
2.4 Begin to demonstrate a variety of locomotor skills, such as galloping, sliding, hopping, and leaping.	2.4 Demonstrate increasing ability and body coordination in a variety of locomotor skills, such as galloping, sliding, hopping, and leaping.

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3.0 Manipulative Skills

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
3.1 Begin to show gross motor manipulative skills by using arms, hands, and feet, such as rolling a ball underhand, tossing underhand, bouncing, catching, striking, throwing overhand, and kicking.	3.1 Show gross motor manipulative skills by using arms, hands, and feet with increased coordination, such as rolling a ball underhand, tossing underhand, bouncing, catching, striking, throwing overhand, and kicking.
3.2 Begin to show fine motor manipulative skills using hands and arms such as in-hand manipulation, writing, cutting, and dressing.	3.2 Show increasing fine motor manipulative skills using hands and arms such as in-hand manipulation, writing, cutting, and dressing.

Perceptual–Motor Skills and Movement Concepts

1.0 Body Awareness

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Demonstrate knowledge of the names of body parts.	1.1 Demonstrate knowledge of an increasing number of body parts.

2.0 Spatial Awareness

2.1 Use own body as reference point when locating or relating to other people or objects in space.	2.1 Use own body, general space, and other people's space when locating or relating to other people or objects in space.
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3.0 Directional Awareness

3.1 Distinguish movements that are up and down and to the side of the body (for example, understands “use that side, now the other side”).	3.1 Begin to understand and distinguish between the sides of the body.
3.2 Move forward and backward or up and down easily.	3.2 Can change directions quickly and accurately.

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3.0 Directional Awareness (Continued)

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
3.3 Can place an object on top of or under something with some accuracy.	3.3 Can place an object or own body in front of, to the side, or behind something else with greater accuracy.
3.4 Use any two body parts together.	3.4 Demonstrate more precision and efficiency during two-handed fine motor activities.

Active Physical Play**1.0 Active Participation**

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Initiate or engage in simple physical activities for a short to moderate period of time.	1.1 Initiate more complex physical activities for a sustained period of time.

2.0 Cardiovascular Endurance

2.1 Engage in frequent bursts of active play that involves the heart, the lungs, and the vascular system.	2.1 Engage in sustained active play of increasing intensity that involves the heart, the lungs, and the vascular system.
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3.0 Muscular Strength, Muscular Endurance, and Flexibility

3.1 Engage in active play activities that enhance leg and arm strength, muscular endurance, and flexibility.	3.1 Engage in increasing amounts of active play activities that enhance leg and arm strength, muscular endurance, and flexibility.
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Health

Health Habits

1.0 Basic Hygiene

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Demonstrate knowledge of some steps in the handwashing routine.	1.1 Demonstrate knowledge of more steps in the handwashing routine.
1.2 Practice health habits that prevent infectious diseases and infestations (such as lice) when appropriate, with adult support, instruction, and modeling.	1.2 Begin to independently practice health habits that prevent infectious disease and infestations (such as lice) when appropriate, with less adult support, instruction, and modeling.

2.0 Oral Health

2.1 Demonstrate knowledge of some steps of the routine for brushing teeth, with adult supervision and instruction.	2.1 Demonstrate knowledge of more steps of the routine for brushing and when toothbrushing should be done, with less adult supervision.
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3.0 Knowledge of Wellness

3.1 Identify a few internal body parts (most commonly the bones, brain, and heart) but may not understand their basic function.	3.1 Identify several different internal body parts and demonstrate a basic, limited knowledge of some functions.
3.2 Begin to understand that health-care providers try to keep people well and help them when they are not well.	3.2 Demonstrate greater understanding that health-care providers try to keep people well and help them when they are not well.
3.3 Communicate to an adult about not feeling well, feeling uncomfortable, or about a special health need, with varying specificity and reliability.	3.3 Communicate to an adult about not feeling well, feeling uncomfortable, or about a special health need, with more specificity and reliability.

4.0 Sun Safety

4.1 Begin to practice sun-safe actions, with adult support and guidance.	4.1 Practice sun-safe actions with decreasing adult support and guidance.
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Safety

1.0 Injury Prevention

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Follow safety rules with adult support and prompting.	1.1 Follow safety rules more independently though may still need adult support and prompting.
1.2 Begin to show ability to follow emergency routines after instruction and practice (for example, a fire drill or earthquake drill).	1.2 Demonstrate increased ability to follow emergency routines after instruction and practice.
1.3 Show beginning ability to follow transportation and pedestrian safety rules with adult instruction and supervision.	1.3 Show increased ability to follow transportation and pedestrian safety rules with adult support and supervision.

Nutrition

1.0 Nutrition Knowledge

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Identify different kinds of foods.	1.1 Identify a larger variety of foods and may know some of the related food groups.

2.0 Nutrition Choices

2.1 Demonstrate a beginning understanding that eating a variety of food helps the body grow and be healthy, and choose from a variety of foods at mealtimes.	2.1 Demonstrate greater understanding that eating a variety of food helps the body grow and be healthy, and choose from a greater variety of foods at mealtimes.
2.2 Indicate food preferences that reflect familial and cultural practices.	2.2 Indicate food preferences based on familial and cultural practices and on some knowledge of healthy choices.

3.0 Self-Regulation of Eating

3.1 Indicate awareness of own hunger and fullness.	3.1 Indicate greater awareness of own hunger and fullness.
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History–Social Science

Self and Society

1.0 Culture and Diversity

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.	1.1 Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.

2.0 Relationships

2.1 Interact comfortably with many peers and adults; actively contribute to creating and maintaining relationships with a few significant adults and peers.	2.1 Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive.
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3.0 Social Roles and Occupations

3.1 Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles.	3.1 Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income.
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Becoming a Preschool Community Member (Civics)

1.0 Skills for Democratic Participation

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.	1.1 Become involved as responsible participants in group activities, with growing understanding of the importance of considering others' opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.

2.0 Responsible Conduct

2.1 Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset.	2.1 Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others' behavior to ensure that others also fit in with group expectations.
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3.0 Fairness and Respect for Other People

3.1 Respond to the feelings and needs of others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order.	3.1 Pay attention to others' feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others.
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4.0 Conflict Resolution

4.1 Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs.	4.1 More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result.
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Sense of Time (History)

1.0 Understanding Past Events

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.	1.1 Show improving ability to relate past events to other past events and current experiences, although adult assistance continues to be important.

2.0 Anticipating and Planning Future Events

2.1 Anticipate events in familiar situations in the near future, with adult assistance.	2.1 Distinguish when future events will happen, plan for them, and make choices (with adult assistance) that anticipate future needs.
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3.0 Personal History

3.1 Proudly display developing skills to attract adult attention and share simple accounts about recent experiences.	3.1 Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences.
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4.0 Historical Changes in People and the World

4.1 Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened "long ago," although do not readily sequence historical events on a timeline.	4.1 Develop an interest in family history (e.g., when family members were children) as well as events of "long ago," and begin to understand when these events occurred in relation to each other.
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Sense of Place (Geography and Ecology)

1.0 Navigating Familiar Locations

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).	1.1 Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.

2.0 Caring for the Natural World

2.1 Show an interest in nature (including animals, plants, and weather) especially as children have direct experience with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals.	2.1 Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans).
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3.0 Understanding the Physical World Through Drawings and Maps

3.1 Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols.	3.1 Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance.
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Marketplace (Economics)

1.0 Exchange

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Understand ownership, limited supply, what stores do, give-and-take, and payment of money to sellers. Show interest in money and its function, but still figuring out the relative value of coins.	1.1 Understand more complex economic concepts (e.g., bartering; more money is needed for things of greater value; if more people want something, more will be sold).

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Science

Scientific Inquiry

1.0 Observation and Investigation

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Demonstrate curiosity and raise simple questions about objects and events in their environment.	1.1 Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.
1.2 Observe ¹ objects and events in the environment and describe them.	1.2 Observe objects and events in the environment and describe them in greater detail.
1.3 Begin to identify and use, with adult support, some observation and measurement tools.	1.3 Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.
1.4 Compare and contrast objects and events and begin to describe similarities and differences.	1.4 Compare and contrast objects and events and describe similarities and differences in greater detail.
1.5 Make predictions and check them, with adult support, through concrete experiences.	1.5 Demonstrate an increased ability to make predictions and check them (e.g., may make more complex predictions, offer ways to test predictions, and discuss why predictions were correct or incorrect).
1.6 Make inferences and form generalizations based on evidence.	1.6 Demonstrate an increased ability to make inferences and form generalizations based on evidence.

1. Other related scientific processes, such as classifying, ordering, and measuring, are addressed in the foundations for mathematics.

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2.0 Documentation and Communication

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
2.1 Record observations or findings in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos.	2.1 Record information more regularly and in greater detail in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, photos, or by tallying and graphing information.
2.2 Share findings and explanations, which may be correct or incorrect, with or without adult prompting.	2.2 Share findings and explanations, which may be correct or incorrect, more spontaneously and with greater detail.

Physical Sciences**1.0 Properties and Characteristics of Nonliving Objects and Materials**

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Observe, investigate, and identify the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).	1.1 Demonstrate increased ability to observe, investigate, and describe in greater detail the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).

2.0 Changes in Nonliving Objects and Materials

2.1 Demonstrate awareness that objects and materials can change; explore and describe changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature).	2.1 Demonstrate an increased awareness that objects and materials can change in various ways. Explore and describe in greater detail changes in objects and materials (rearrangement of parts; change in color, shape, texture, form, and temperature).
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2.0 Changes in Nonliving Objects and Materials (continued)

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
2.2 Observe and describe the motion of objects (in terms of speed, direction, the ways things move), and explore the effect of own actions (e.g., pushing pulling, rolling, dropping) on making objects move.	2.2 Demonstrate an increased ability to observe and describe in greater detail the motion of objects (in terms of speed, direction, the ways things move), and to explore the effect of own actions on the motion of objects, including changes in speed and direction.

Life Sciences**1.0 Properties and Characteristics of Living Things**

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.	1.1 Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.
1.2 Begin to indicate knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals. ²	1.2 Indicate greater knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.
1.3 Identify the habitats of people and familiar animals and plants in the environment and begin to realize that living things have habitats in different environments.	1.3 Recognize that living things have habitats in different environments suited to their unique needs.
1.4 Indicate knowledge of the difference between animate objects (animals, people) and inanimate objects. For example, expect animate objects to initiate movement and to have different insides than inanimate objects.	1.4 Indicate knowledge of the difference between animate and inanimate objects, providing greater detail, and recognize that only animals and plants undergo biological processes such as growth, illness, healing, and dying.

2. The knowledge of body parts is also addressed in the *California Preschool Learning Foundations (Volume 2)* for health. In science, it also includes the knowledge of body processes. Knowledge of body parts is extended to those of humans and other animals.

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2.0 Changes in Living Things

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
2.1 Observe and explore growth and changes in humans, animals, and plants and demonstrate an understanding that living things change over time in size and in other capacities as they grow.	2.1 Observe and explore growth in humans, animals, and plants and demonstrate an increased understanding that living things change as they grow and go through transformations related to the life cycle (for example, from a caterpillar to butterfly).
2.2 Recognize that animals and plants require care and begin to associate feeding and watering with the growth of humans, animals, and plants.	2.2 Develop a greater understanding of the basic needs of humans, animals, and plants (e.g., food, water, sunshine, shelter).

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Earth Sciences

1.0 Properties and Characteristics of Earth Materials and Objects

<i>At around 48 months of age</i>	<i>At around 60 months of age</i>
1.1 Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.	1.1 Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.

2.0 Changes in the Earth

2.1 Observe and describe natural objects in the sky (sun, moon, stars, clouds) and how they appear to move and change.	2.1 Demonstrate an increased ability to observe and describe natural objects in the sky and to notice patterns of movement and apparent changes in the sun and the moon.
2.2 Notice and describe changes in weather.	2.2 Demonstrate an increased ability to observe, describe, and discuss changes in weather.
2.3 Begin to notice the effects of weather and seasonal changes on their own lives and on plants and animals.	2.3 Demonstrate an increased ability to notice and describe the effects of weather and seasonal changes on their own lives and on plants and animals.
2.4 Develop awareness of the importance of caring for and respecting the environment and participate in activities related to its care.	2.4 Demonstrate an increased awareness and the ability to discuss in simple terms how to care for the environment, and participate in activities related to its care.

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Appendix C

Sample Environments and Materials for All Nine Domains of the *California Preschool Curriculum Framework*

The *California Preschool Curriculum Framework* lists suggestions for environments and materials that support children’s learning and development in each of the nine domains.

Appendix C is a comprehensive overview of all of these suggestions. This resource can be useful for explorations within individual domains or for working across domains. These suggestions are listed by domain as presented in the three volumes of the *California Preschool Curriculum Framework*. All are equally important and are not listed with priority.

California Preschool Curriculum Framework, Volume 1

- Social-Emotional Development
- Language and Literacy
- English-Language Development
- Mathematics

California Preschool Curriculum Framework, Volume 2

- Visual and Performing Arts
- Physical Development
- Health

California Preschool Curriculum Framework, Volume 3

- History–Social Science
- Science

Sample Environments and Materials by Domain

 Social-Emotional Development	 Language and Literacy	 English-Language Development	 Mathematics	 Visual and Performing Arts	 Physical Development	 Health	 History–Social Science	 Science	
								The Physical Environment	The Social Environment
Challenging and developmentally appropriate materials	The daily schedule for adult-child and child-child interactions	Provide safe havens where the child does not have to speak to anyone	Enrich the environment with objects and materials that promote mathematical growth	Dance and movement require only space in a room and benefit further from music and costumes of modest scope and cost	Teachers promote optimal physical development when they provide children with positive encouragement and quality instruction (both indirect and direct)	Establish a physical learning environment designed for children's initiative	Extended projects that are centered on a topic in history or social science and emerge from children's interests and inquiries	Be thoughtful about what objects and materials to include in the environment	Foster children's curiosity and questioning
Ample supply of materials	Large-group space	Establish consistent classroom routines and procedures	Integrate math-related materials into all interest areas in the classroom	Many things handy in a preschool environment can serve as props for dramatic play and drama, where imagination can turn almost anything into something else	The immediate physical environment is a powerful influence on children's physical development	Provide safe, inviting learning environments and appropriate supervision of children	Reflective of diversity	Provide a variety of natural materials to observe and investigate	Guide children in exploring their questions
Organized learning areas	Small-group space	Provide space in the classroom environment for children to interact in small groups and one-on-one	Provide real-life settings in the preschool environment	Visual arts largely involve drawing, painting, and creating two- and three-dimensional works of art	Indoor and outdoor play environments should include a variety of appropriately sized equipment that promotes both gross and fine motor development	Maintain a clean, healthy, and sanitary environment	A balance between child choice and adult direction	Include objects and materials that allow for creativity and open-ended investigation	Be an active observer

Sample Environments and Materials by Domain

 Social-Emotional Development	 Language and Literacy	 English-Language Development	 Mathematics	 Visual and Performing Arts	 Physical Development	 Health	 History-Social Science	 Science	
								The Physical Environment	The Physical Environment
Appropriately sized small-group activities	A space to display family-related items	Provide space where teachers and other adults can interact individually and in small groups with children who are learning English	Use materials and objects that are relevant and meaningful to the children in your group	It is important that music not be limited to prerecorded songs	Learning is most meaningful when the environment and materials reflect and accommodate children's individual interests, backgrounds, and present abilities	Have supplies available and accessible to promote routine health practices	A variety of materials to support children's inquiry-based learning and practice in the skills of social science	Include living things in the preschool environment	Talk with children and engage them in conversations
A variety of small-group activities	Centers or interest areas ▪ Dramatic play area ▪ Block area ▪ Art area ▪ Writing area ▪ Library or book area ▪ Science area ▪ Game area ▪ Math area	Provide linguistically and culturally appropriate materials	Use children's books to explore mathematics with children	Adaptive materials may be necessary to ensure that activities are accessible for all children	Take time to build safety into both indoor and outdoor play environments	Provide stimulating and developmentally appropriate materials in interest areas for children's use during dramatic play	Materials that connect children to times and places	Include scientific tools for observation, measurement, and documentation	Model the use of scientific vocabulary
Aesthetically appealing	Prepare materials ahead of time for maximizing language and literacy	Make clear signs and explicit picture cues for interest areas	Be intentional and mindful in setting up and using the physical environment	Materials that may serve as props for pretend play, or costumes that reflect the cultural backgrounds of the children in the pre-school program, are good to have on hand	Movement experiences should include exploration, discovery, and appreciation of the natural environment	Provide furnishings and utensils appropriate for children's size and abilities	Real experiences with nature and other environmental education materials	Make scientific tools available throughout the preschool environment	Know when to intervene and when to stand back

Sample Environments and Materials by Domain

 Social-Emotional Development	 Language and Literacy	 English-Language Development	 Mathematics	 Visual and Performing Arts	 Physical Development	 Health	 History–Social Science	 Science	
								The Physical Environment	The Physical Environment
Public and private spaces	Arrange learning environments to fascinate children and prompt conversations	Make use of computers to introduce and reinforce content of activities		The suitability, accessibility, safety, amount, and variety of materials	Thoughtfully designed movement experiences, guided by adults, support children's physical development	Be creative and include a gardening space, either indoors or outdoors, where children can plant seeds, tend the garden, and watch the plants grow	Tools and practices for appreciating and caring for the earth and its resources	Consider adaptations in scientific tools and materials for children with special needs	Provide children with time
Furnishings and materials accessible to children	Extend the classroom beyond its walls			The aesthetics of the early childhood environment			Display of children's work and experiences	Use technology to support children's scientific experiences	
Display of children's work				Sufficient open space for movement, dance, and theater play			Dramatic play props and materials that represent firsthand experience with social roles and occupations, as well as consumer actions	Present documentation of science-related experiences in the preschool environment	
Space for children's belongings				Support for children's drawing skills			High-quality children's books with content related to self, family, and community	Include children's books with science-related content	

Sample Environments and Materials by Domain

 Social-Emotional Development	 Language and Literacy	 English-Language Development	 Mathematics	 Visual and Performing Arts	 Physical Development	 Health	 History-Social Science	 Science	
								The Physical Environment	The Physical Environment
Reflective of diversity				Indoor and outdoor environments for creating art			Extension of learning into the local community to help children learn in the “here and now” of the world around them	Use the outdoors for natural exploration and investigations	
Space for arrivals and departures				Art that is displayed at the eye level of the children			Family involvement in program planning	Organize the space in ways that promote children’s explorations ▪ Space ▪ Flexibility ▪ Accessibility ▪ Social interactions	
Supportive of children’s active engagement				A well-constructed environment for social and collaborative learning				Always be aware of children’s safety	
Outdoor areas supportive of social-emotional development									

Appendix D

Sample Interactions and Strategies for All Nine Domains of the *California Preschool Curriculum Framework*

The *California Preschool Curriculum Framework* lists suggestions for interactions and strategies that support children’s learning and development in each of the nine domains.

Appendix D is a comprehensive overview of all of these suggestions. This resource can be useful for explorations within individual domains or for working across domains. These suggestions are listed by domain as presented in the three volumes of the *California Preschool Curriculum Framework*. All are equally important and are not listed with priority.

California Preschool Curriculum Framework, Volume 1

- Social-Emotional Development
- Language and Literacy
- English-Language Development
- Mathematics

California Preschool Curriculum Framework, Volume 2

- Visual and Performing Arts
- Physical Development
- Health

California Preschool Curriculum Framework, Volume 3

- History–Social Science
- Science

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Social-Emotional Development

Strand: Self

Page 1 of 3

California Preschool Curriculum Framework, Volume 1, pp. 45-61

Substrand: Self-Awareness	Substrand: Self-Regulation	Substrand: Social and Emotional Understanding	Substrand: Empathy and Caring	Substrand: Initiative in Learning
Designate learning areas to help children select preferred sites	Use appropriately stimulating aesthetic elements	Observe the levels of social and emotional understanding that children already have	Model behavior and attitudes	Provide ample space, use child-sized shelves and furnishings, and adapt materials to make all learning areas and activities accessible
Observe individual children attentively	Eliminate or reduce background noise	Label the emotions people express and communicate with children about what may be provoking those feelings	Label children's feelings	Make use of adaptive tools and play materials to help the autonomous exploration of children with special needs
Incorporate artwork and play materials that reflect children's home cultures	Observe individual children closely	Generalize from specific examples to broader realities	Prompt and guide desired behavior	Observe individual children while they pursue their own activities
Describe aloud for children observations of what they do and express	Model behavior and attitudes toward others	Discuss characteristics openly	Acknowledge and express appreciation for children's empathetic responses	Model curiosity and enthusiasm when you learn new things

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Social-Emotional Development

Strand: Self

Page 2 of 3

(California Preschool Curriculum Framework, Volume 1, pp. 45-61)

Substrand: Self-Awareness	Substrand: Self-Regulation	Substrand: Social and Emotional Understanding	Substrand: Empathy and Caring	Substrand: Initiative in Learning
Compare aloud for children's past and present abilities	Maintain developmentally appropriate expectations for preschool children's behavior	Make use of the experiences and emotions of characters in stories	Participate in and elaborate on children's pretend-play scripts that include rescue and caring themes	Encourage children to choose activities based on their own interests
Give specific feedback to children about their efforts	Guide and coach children's behavior		Read and tell stories that include characters in distress as well as the caring responses of others	Engage in play and exploration with children
Use planned activities and children's own observations to draw attention to people's similarities and differences, including preferences and feelings	Reinforce children's good choices and link their actions to positive outcomes		Encourage empathy and caring for the natural world, including plants and animals	Provide ample time for free exploration, scheduling play and exploration period of at least one uninterrupted hour at a time
Set up opportunities to practiced problem solving with children who have not yet developed those skills	Provide a consistent but flexible daily routine			Help children generate ideas for solving problem

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Social-Emotional Development

Strand: Self

Page 3 of 3

(California Preschool Curriculum Framework, Volume 1, pp. 45-61)

Substrand: Self-Awareness	Substrand: Self-Regulation	Substrand: Social and Emotional Understanding	Substrand: Empathy and Caring	Substrand: Initiative in Learning
	Alternate between active and quiet activities			Model persistence during challenging tasks
	Time group experiences to match children's developing attention spans, social skills, and self-control			Document and display children's work
	Introduce Children to relaxation exercises			Periodically reassess the preschool environment
	Prepare "private" spaces for children			
	Plan developmentally appropriate transitions			
	Play games with rules			

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Social-Emotional Development

Strand: Social Interaction

Page 1 of 2

(California Preschool Curriculum Framework, Volume 1, pp. 62-77)

Substrand: Interactions with Familiar Adults	Substrand: Interactions with Peers	Substrand: Group Participation	Substrand: Cooperation and Responsibility
Get to know each child by observing	Observe the level of social interaction skills that each child brings to the group	Model cooperative behavior and attitudes	Develop a warm and secure relationship with each child
Be at the child's level as much as possible	Model effective and respectful interaction	Plan large-group gatherings with flexibility	Ensure that adult expectations for children's behavior are developmentally appropriate
Initiate conversations with children about their activities and experiences	Verbalize observations	Guide and coach children's behavior	Move beyond rules to expectations to emphasize guiding principles or values
Communicate observations, verbally or through other means	Incorporate play materials that promote and encourage peer play	Comment on children's actions	Enlist children's participation in creating examples of school or classroom expectations
Provide specific feedback to children about their efforts	Suggest extensions for children's cooperative play	Rehearse and prompt desired responses	Focus on building a sense of classroom community
Show respect for cultural differences	Coach young children, step by step, as they learn conflict resolution skills	Acknowledge positive choices	Refer children to each other, instead of to an adult, for assistance
Encourage children to see familiar adults as resources	Generalize from actions to principles	Generalize from action to principle	Rehearse and prompt desired actions, especially for transition times

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Social-Emotional Development

Strand: Social Interaction

Page 2 of 2

(California Preschool Curriculum Framework, Volume 1, pp. 62-77)

Substrand: Interactions with Familiar Adults	Substrand: Interactions with Peers	Substrand: Group Participation	Substrand: Cooperation and Responsibility
	Use books, puppet stories, and group discussions	Build a sense of community through planned group experiences	
	Plan for project work	Arrange large-group meeting spaces to enhance planned activities	
		Structure small-group activity areas to maximize focus	
		Think through group size and composition	
		Prepare materials ahead of time	
		Incorporate nonverbal prompts	
		Address individual needs through the use of strategies and tools	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Social-Emotional Development

Strand: Relationships

Page 1 of 1

(California Preschool Curriculum Framework, Volume 1, pp. 78-86)

Substrand: Attachment to Parents	Substrand: Close Relationships with Teachers and Caregivers	Substrand: Friendships
Establish a warm and collaborative relationship with each child's family	Build and maintain a pattern of warm, nurturing interactions	Plan a program that offers choices of activities and associations with peers
Talk with children regularly about their families	Demonstrate in the child's presence a friendly, cooperative, and respectful relationship with the child's family	Use ongoing observations to inform your social structuring of experiences
Create predictable arrival and departure routines	Encourage child-adult collaboration in learning	Use books, puppet plays, and group discussions to identify and reinforce friendship skills
Communicate frequently with family members		Communicate with children's families about their preschool friendships

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Language and Literacy

Strand: Listening and Speaking

Page 1 of 1

(California Preschool Curriculum Framework, Volume 1, pp. 110-127)

Substrand: Language Use and Conventions	Substrand: Vocabulary	Substrand: Grammar
Set the stage for language use	Build on children's interests	Talk one on one with children
Acknowledge children's contributions	What's my name?	Know your families and individual children
Play games and make them interesting and fun	Language in, language out... Narrate	Spin narratives
Engage in "getting to know you" conversations	More word games	
More games	Playing category games	
Model the use of language conventions and encourage children to do the same	Detective work	
Build on preschool children's own experience	Routines: Here we go again	
Use dramatic play and co-construct stories	Language opportunities in children's art	
Give story stems		

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Language and Literacy

Strand: Reading

Page 1 of 3

(California Preschool Curriculum Framework, Volume 1, pp. 128-157)

Substrand: Concepts about Print	Substrand: Phonological Awareness	Substrand: Alphabetics and Word/Print Recognition	Substrand: Comprehension and Analysis of Age- Appropriate Text	Substrand: Literacy Interest and Response
Provide print props to support dramatic play	Play language games that focus on blending sounds	Use children's printed names as labels and to support routines	Read stories daily	Make stories come alive and encourage the children to do the same
Provide print props for a variety of play themes in the dramatic play and block areas	Play language games that focus on segmenting sounds	Use children's printed names and letters in transition activities	Plan support for story reading	Use voice for expression and with variation
Use print to designate interests areas	Play language games that focus on deletion	Use children's names in teacher-guided activities	Read a story several times over a few days	Make story time not too long, not too short, but just right
Use literacy terminology to help children learn it	Sing songs and say poems each day	Provide children's names as a resource or reference	Help children understand the words and sentences in a story	Make reading and writing meaningful and useful
Use print to support classroom routines	Play with sounds by adding new verses to a familiar song	Provide access to alphabet letters in a variety of contexts	Discuss a story after reading it	Seek children's input
Read environmental print	Use phonological awareness activities for transitions	Focus on first letters and sounds in alphabet books and posters	Model deeper levels of reasoning	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Language and Literacy

Strand: Reading

Page 2 of 3

(California Preschool Curriculum Framework, Volume 1, pp. 128-157)

Substrand: Concepts about Print	Substrand: Phonological Awareness	Substrand: Alphabetics and Word/Print Recognition	Substrand: Comprehension and Analysis of Age- Appropriate Text	Substrand: Literacy Interest and Response
Use print as tool to get things done and to record information	Discuss rhyming words and words that begin with the same sound	Point to each letter as its name is sung in a song	Read information books	
Use print to support teacher-guided activities		Use activities and games to interest children in letter matching and naming	Include information books among the materials utilized for science activities and other hands-on experiences	
Model basic print conventions		Use everyday opportunities to model attending to print details in words	Model authentic uses of book and nonbook forms of information text	
Write down interesting words as they come up and encourage verbal explanation of word meaning		Provide materials with environmental print in an interest area	Plan for children to use information gained from an information book	
		Provide predictable textbooks in library or listening areas	Plan the environment to support independent story retellings	

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Language and Literacy				
Strand: Reading Page 3 of 3 <i>(California Preschool Curriculum Framework, Volume 1, pp. 128-157)</i>				
Substrand: Concepts about Print	Substrand: Phonological Awareness	Substrand: Alphabets and Word/Print Recognition	Substrand: Comprehension and Analysis of Age- Appropriate Text	Substrand: Literacy Interest and Response
			Place information books in all areas	

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: English-Language Development
Strand: Listening Page 1 of 1 <i>(California Preschool Curriculum Framework, Volume 1, pp. 188-195)</i>
Substrand: Children Listen with Understanding
Model good listening skills
Use the home language for comprehension
Keep messages and directions short when talking with preschool children who are English learners
Teach children how to listen, repeat messages, and ask questions
Have a listening library in the home language and in English
Summarize or provide key phrases of a story in a book, finger play, or song in the child's home language before introducing it in English
Use language and literacy activities that contain repetitive refrains
Use running commentary when the child is engaged in an activity
Use multiple methods for scaffolding communication depending on the stage of English-language development of the child
Target both the content and English-language development in every activity
Observe preschool English learners during group time, storybook reading, and in small groups

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: English-Language Development

Strand: Speaking

Page 1 of 2

(California Preschool Curriculum Framework, Volume 1, pp. 196-205)

Substrand: Children Use Nonverbal and Verbal Strategies to Communicate with Others	Substrand: Children Begin to Understand and Use Social Conventions in English	Substrand: Children Use Language to Create Oral Narratives About Their Personal Experiences
Learn how to pronounce the child's name as accurately as possible	Ask a family member or knowledgeable community resource to share appropriate social conventions for the child's language and culture	Listen appreciatively to children's stories
Learn come key words or phrases in the child's home language	Observe the child during drop-off and pick-up for cues	Ask open-ended questions and sustain the conversation over a number of turns
Repeat common phrases slowly and clearly to the child	During circle time or small-group time, talk to children about the different ways they greet adults and other children in their families	Help children understand idioms
Allow the child to start slowly		Provide materials that help stimulate talking (or oral narratives as used in the <i>California Preschool Learning Foundations</i> , page 22)
Allow for wait time		Provide wordless picture books
Scaffold communication by combining English words with some type of body gesture or visual cue		
Be thoughtful about helping children understand what words mean		

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: English-Language Development

Strand: Speaking

Page 2 of 2

(California Preschool Curriculum Framework, Volume 1, pp. 196-205)

Substrand: Children Use Nonverbal and Verbal Strategies to Communicate with Others	Substrand: Children Begin to Understand and Use Social Conventions in English	Substrand: Children Use Language to Create Oral Narratives About Their Personal Experiences
Plan for vocabulary development		
Expand and extend the child's language		
Create small groups for book reading		

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: English-Language Development

Strand: Reading

Page 1 of 2

(California Preschool Curriculum Framework, Volume 1, pp. 206-218)

Substrand: Children Demonstrate Appreciation and Enjoyment of Reading and Literature	Substrand: Children Show an Increasing Understanding of Book Reading	Substrand: Children Demonstrate an Understanding of Print Conventions	Substrand: Children Demonstrate Awareness That Print Carries Meaning	Substrand: Children Demonstrate Progress in Their Knowledge of the Alphabet in English	Substrand: Children Demonstrate Phonological Awareness
Expose children enthusiastically to all types of print	Connect print material to children's interests	Point out print features during shared reading	Point out the meaning of print around the classroom and in the community	Have children identify the letters of their own names in any language	Sing silly English songs that can be phonetically manipulated
Connect literacy to the home culture and community	Invite children to discuss and react to story narratives	Point out print features during shared writing	Have lots of clear print in multiple language in the environment	Provide English alphabet letters in multiple forms	Sing songs, recite poems, clap rhythms, and do finger plays that emphasize rhymes daily
Build on existing strengths	Encourage children to dictate, retell, and create their own books	Equip all learning areas with books and writing materials	Engage children in purposeful writing	Read alphabet books in multiple languages	Identify and practice English sounds that do not exist in the home language
Use read-alouds		Help children create their own books			Use real objects and emphasize syllables and phonemes

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: English-Language Development					
Strand: Reading Page 2 of 2 <i>(California Preschool Curriculum Framework, Volume 1, pp. 206-218)</i>					
Substrand: Children Demonstrate Appreciation and Enjoyment of Reading and Literature	Substrand: Children Show an Increasing Understanding of Book Reading	Substrand: Children Demonstrate an Understanding of Print Conventions	Substrand: Children Demonstrate Awareness That Print Carries Meaning	Substrand: Children Demonstrate Progress in Their Knowledge of the Alphabet in English	Substrand: Children Demonstrate Phonological Awareness
					Play games that emphasize the first sound of common words

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: English-Language Development

Strand: Writing

Page 1 of 1

(California Preschool Curriculum Framework, Volume 1, pp. 219-223)

Substrand:

Children Use Writing to Communicate Their Ideas

Look for opportunities for adult- and peer-mediated conversation about writing by using the child's home language to initiate this discussion

Link writing to listening and speaking to preschool children who are English learners can draw from other language strengths

Focus writing activities on literature

Supply learning areas with writing materials

Have children dictate their own short stories

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Mathematics

Strand: Number Sense

Page 1 of 2

(California Preschool Curriculum Framework, Volume 1, pp. 242-258)

Foundation: Understanding Number and Quantity	Foundation: Understanding Number Relationships and Operations
Observe and listen to children's counts	Promote the use of comparison terms (more, same as, fewer, or less) through everyday interactions
Encourage counting during everyday interactions and routines	Use everyday interactions and routines to illustrate and discuss addition and subtraction transformations
Include preschool children's home language in counting activities, whenever possible	Introduce preschool children to the concepts of addition and subtraction through literature, songs, and games
Ask questions that encourage purposeful counting	Make estimations
Foster one-to-one correspondence within the context of daily routines	Use graphing with children
Support preschool children's ability to apply the counting procedure • Provide lots of objects to count • Start with small sets of objects • Start with objects arranged linearly • Model counting • Encourage children to self-correct their counts	
Consider adaptations for children with special needs	
Make number-related games, books, and other materials accessible to preschool children	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Mathematics

Strand: Number Sense

Page 2 of 2

(California Preschool Curriculum Framework, Volume 1, pp. 242-258)

Foundation: Understanding Number and Quantity	Foundation: Understanding Number Relationships and Operations
Plan group activities focused on counting	
Integrate numerals into different areas of the classroom	
Discuss numerals in print in a meaningful context	
Expose preschool children to quantities represented in different forms	
Promote use of the subitizing skill	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Mathematics

Algebra and Functions

Page 1 of 2

(California Preschool Curriculum Framework, Volume 1, pp. 259-271)

Foundation: Classification	Foundation: Patterning
Organize the classroom into different categorized storage areas to facilitate classification	Point out patterns in the environment
Include materials and objects for sorting in the environment	Engage preschool children in conversations about patterns • Say the patterns aloud as a group to build the rhythm of repetition • Ask questions • Help children describe patterns and use descriptive words
Identify opportunities for sorting and classifying in everyday routines	Plan for children at different levels
Recognize sorting in play	Play with patterns in various formats • Patterns with objects and pictorial designs • Patterns through movement • Patterns with sounds • Patterns through rhymes and stories
Encourage preschool children in conversations about their sorting and classifying • Ask questions • Help children label groups and verbalize their criteria for sorting • Encourage children to come up with their own criteria for sorting	

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Mathematics	
Algebra and Functions Page 2 of 2 <i>(California Preschool Curriculum Framework, Volume 1, pp. 259-271)</i>	
Foundation: Classification	Foundation: Patterning
Plan opportunities for preschool children to sort and classify • Plan for children at different levels • Integrate sorting into children’s current topic of interest and study	

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Mathematics
Strand: Measurement Page 1 of 1 <i>(California Preschool Curriculum Framework, Volume 1, pp. 272-280)</i>
Foundation: Compare, Order, and Measure Objects
Provide opportunities to promote measurement concepts in the environment
Observe preschool children’s measurement concepts in everyday play and routines
Facilitate and reinforce measurement concepts in everyday play and routines • Build preschool children’s descriptive and comparison vocabulary • Ask questions • Challenge preschool children to use measurement to solve problems
Provide opportunities to compare and order objects
Use literature to illustrate measurement concepts
Provide small-group activities using standard and nonstandard measurement
Encourage preschool children to estimate measurement
Encourage preschool children to record and document what they have measured

Sample Interactions and Strategies by Domain, Strand, and Substrand



Mathematics

Geometry

Page 1 of 1

(California Preschool Curriculum Framework, Volume 1, pp. 281-289)

Foundation: Shapes	Foundation: Positions in Space
Refer to shapes and encourage the use of shape names in everyday interactions	Provide materials and equipment to promote spatial sense
Engage preschool children in conversations about shapes - Encourage preschool children to observe and compare shapes - Talk about shapes and discuss their attributes	Support preschool children's spatial sense in everyday interactions - Use spatial words and point out spatial relationships - Expand preschool children's words
Provide materials that encourage preschool children to explore and manipulate shapes in space	Provide preschool children with planned experiences to promote the understanding of spatial sense - Songs and games - Literature - Construction
Include books, games, and other learning materials with shape-related themes in the preschool environment	
Provide preschool children with playful opportunities to explore and represent shapes in a variety of ways - Play with blocks - Match, sort, and classify shapes - Create and represent shapes - Compose and decompose shapes from other shapes	
Present preschool children with many different examples of a type of shape	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Mathematics

Strand: Mathematical Reasoning

Page 1 of 1

(California Preschool Curriculum Framework, Volume 1, pp. 290-294)

Foundation:

Promoting Mathematical Reasoning and Problem Solving

Identify and create opportunities for mathematical reasoning

Pose meaningful questions and challenge preschool children's thinking

Support preschool children in reasoning mathematically

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Visual and Performing Arts

Strand: Visual Art

Page 1 of 2

(California Preschool Curriculum Framework, Volume 2, pp. 50-62)

Substrand: Notice, Respond, and Engage	Substrand: Develop Skills in Visual Art	Substrand: Create, Invent, and Express Through Visual Art
Encourage engagement with art at all levels	Provide children simply with a means and place to make marks (e.g. a crayon and paper), and they will begin with the same basic images	Support exploration and discovery
Provide opportunities for children to reflect on their own work and sometimes their own actions, through communication with peers and the teacher, and to reflect on the works of peers in encouraging and positive ways	Encourage communication around shape and form to aid children's drawing skills	Give children the time and space needed to explore creativity
Respect individual developmental, cultural, and linguistic differences, and encourage children to respect them	Help children acquire painting skills through practice with the tools	Provide a comfortable environment in which children can practice art
	Stimulate children's interest in color and application of paint through other forms of painting	
	Create opportunities for children to work with dough, clay, or wet sand	
	Provide only the <i>malleable</i> material, without tools, during children's initial explorations of sculpting so that children have a chance to explore through touch	

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Visual and Performing Arts		
Strand: Visual Art Page 2 of 2 <i>(California Preschool Curriculum Framework, Volume 2, pp. 50-62)</i>		
Substrand: Notice, Respond, and Engage	Substrand: Develop Skills in Visual Art	Substrand: Create, Invent, and Express Through Visual Art
	Communicate to a group of linguistically and culturally diverse children through sculpture techniques by using nonverbal methods	
	Introduce tools after observing that children have had many ‘hands-on’ opportunities to explore clay and dough sculpture	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Visual and Performing Arts

Strand: Music

Page 1 of 3

(California Preschool Curriculum Framework, Volume 2, pp. 63-85)

Substrand: Notice, Respond, and Engage	Substrand: Develop Skills in Music	Substrand: Create, Invent, and Express Through Music
Find ways to expose children to music being conducted and performed	Dramatize poetry and nursery rhymes as a fun way to explore and develop vocal inflection and pitch capabilities in the young singer	Encourage children to invent accompaniments with musical instruments
Provide children with an opportunity to conduct the group by singing or playing instruments	Encourage children to be playful and spontaneous when singing—they often sing made-up songs as they play alone or with other children	Provide opportunities for independent and group play through musical play kits, which can be stored in a music area
Provide a conductor's listening and play area	Provide children with opportunities to hear songs about animals and make animal sounds	Display child-notated compositions
Invite live musicians for the children to conduct; encourage the child conductor to stop and start, go faster and slower, and give arm gestures for louder and softer sounds	Use songs that have movements or gestures that accompany the words	Have the children draw pictures of songs
Include storybooks on conductors and orchestras, such as Richard Scarry's <i>Best Storybook Ever!</i> or <i>Berlioz, the Bear</i> by Jan Brett	Minimize use of recorded music when the goal is singing	Use musical forms that allow for structured musical play or freely spontaneous musical responses

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Visual and Performing Arts

Substrand: Music

Page 2 of 3

(California Preschool Curriculum Framework, Volume 2, pp. 63-85)

Substrand: Notice, Respond, and Engage	Substrand: Develop Skills in Music	Substrand: Create, Invent, and Express Through Music
Extend learning about different ways to lead a music group	Make instruments for outdoor musical play	Integrate child-improvised music dues with books, poems, and creative movement activities
Make connections between home and activities in the preschool program	Incorporate free-and-move games as a fun, simple way to help children develop control of the body in space and to learn and practice fundamental locomotor movements	
Provide music areas where children can experience instruments or musical activities as individuals or in a small group	Invite young children to move through instrumental program music, or music that “tells a story”	
Make instruments with the children, such as rain sticks, shakers, and drums	Engage children in movement through danceable storybooks and help them learn basic steps and musical styles of dance	
Incorporate books related to music	Create music forts	
Incorporate chant games and songs related to sound production		
Encourage children to create simple rhythm patterns		

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Visual and Performing Arts

Strand: Music

Page 3 of 3

(California Preschool Curriculum Framework, Volume 2, pp. 63-85)

Substrand: Notice, Respond, and Engage	Substrand: Develop Skills in Music	Substrand: Create, Invent, and Express Through Music
Set up a “Science of Sound” area where children can explore and experiment with building sounds		
Invite local professional musicians or family members to demonstrate and talk about their instruments and the sounds made		
Incorporate the use of Web sites or children’s music and other age-appropriate software (if available), to engage children’s interest in sound		
Include a variety of songs that relate to a particular topic area		
Use music storybooks and connect related topics		

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Visual and Performing Arts

Strand: Drama

Page 1 of 1

(California Preschool Curriculum Framework, Volume 2, pp. 86-100)

Substrand: Notice, Respond, and Engage	Substrand: Develop Skills to Create, Invent, and Express Through Drama
Use a drama-based vocabulary	Observe role play
Encourage the proper use of drama-based vocabulary	Step in or model when needed
Encourage and model the expression of interests and preferences	Model and note appropriate ways of using drama materials
Scaffold and encourage children during and after participation in drama to build their understanding and use of plot	Provide adaptations to support the participation of children with disabilities or other special needs
	Use costumes, props, and scenery to inspire dramatic play and drama
	Facilitate children's engagement in drama by first discussing expectations
	Move in and out of role
	Encourage and allow initiative

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Visual and Performing Arts

Substrand: Dance

Page 1 of 1

(California Preschool Curriculum Framework, Volume 2, pp. 101-116)

Substrand: Notice, Respond, and Engage	Substrand: Develop Skills in Dance	Substrand: Create, Invent, and Express Through Dance
Help children to become enthusiastic participants in learning dance	Establish spatial boundaries	Incorporate dance with literary development
Warm up!	Plan movement activities appropriate for various developmental stages and skill levels	Use props
Be aware of cultural norms that may influence children's participation	Encourage variety in children's movement	Use play
Create learning environments and routines	Teach rhythm using traditional movement games	Provide costumes and music to inspire improvisational movement
Use children's prior knowledge	Use the "echo" as a helpful rhythm exercise	Use dance to communicate feelings
Structure learning activities so children are active participants	Establish spatial boundaries	Use movement to introduce and reinforce concepts from other domains
Introduce the learning of a dance skills by using imagery		
Draw on children's interests in dance making		

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Physical Development

Strand: Fundamental Movement Skills

Page 1 of 4

(California Preschool Curriculum Framework, Volume 2, pp. 139-175)

Substrand: Balance	Substrand: Locomotor Skills	Substrand: Manipulative Skills (gross motor and fine motor)
Design spaces and activities to develop balance following a developmental progression	Observe and analyze children's locomotor skills to facilitate planning for learning opportunities	Observe developmental sequences of fundamental manipulative skills
Provide opportunities that include diverse cultural themes	Promote progressive development of leg strength	Vary the focus of the manipulative skills
Incorporate balance activities into the children's world	Promote progressive development of balance	Provide a variety of equipment to accommodate individual differences in body size, skill level, and the development of children's physical and sensory systems
Provide opportunities for activities that include both active movements and still body positions	Promote and be aware of the progressive development of coordination of locomotor skills	Create meaningful scenarios that provide the opportunity for the integration of fundamental movement skills with other curriculum concepts
Challenge children's balance abilities by asking questions	Encourage practice of locomotor movements in both indoor and outdoor environments	Use both unstructured and structured strategies, as well as multisensory experiences, in your teaching
Encourage persistence during challenging balance tasks	Use vivid visual information and visual aids that communicate to children in simple ways how to move	Create developmental activities that provide a sense of success
Post pictures of balance positions and balance activities	Use music, song, rhymes, and stories to provide rhythmic patterns	Provide opportunities for repeated practice in a safe environment

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Physical Development

Strand: Fundamental Movement Skills

Page 2 of 4

(California Preschool Curriculum Framework, Volume 2, pp. 139-175)

Substrand: Balance	Substrand: Locomotor Skills	Substrand: Manipulative Skills (gross motor and fine motor)
Design the environment so children combine balance skills with fundamental movement skills and movement concepts	Planning meaningful, purposeful, and connected locomotor activities and games	Understand gender-biased expectations of the children's culture when teaching manipulative skills
Provide a variety of sensory cues that facilitate a multisensory learning	Create picture cards representing different ways to move related to children's cultural background	Provide plenty of encouragement
Modify balance activities to increase participation by children with disabilities and special needs	Create culturally diverse scenarios for practicing locomotor skills	Create manipulative activities that provide automatic feedback and a sense of accomplishment
Use visual aids, foot and handprints, and objects on the floors to promote balancing skills	Encourage persistence during challenging locomotor skills	Learning about children's cultural context for fine motor activities
	Provide appropriate challenges for children with special needs	Learn about families' values related to fine motor skills
	Express enthusiasm for locomotor skills	Learn about children's prior experiences and personal interests related to fine motor activities
		Focus on the quality of movement rather than the end product

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Physical Development		
Strand: Fundamental Movement Skills Page 3 of 4 <i>(California Preschool Curriculum Framework, Volume 2, pp. 139-175)</i>		
Substrand: Balance	Substrand: Locomotor Skills	Substrand: Manipulative Skills (gross motor and fine motor)
		Provide clear, specific feedback to facilitate children's problem-solving process
		Provide a variety of tools and media to promote participation
		Design meaningful fine motor activities by incorporating children's diverse backgrounds
		Provide adaptations to support participation of children with disabilities or other special needs
		Promote children's ability to manipulate objects by feel
		Provide opportunities for children to engage in fine motor activities in a variety of positions
		Promote optimal postural support during challenging fine motor activities
		Position materials vertically

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Physical Development		
Strand: Fundamental Movement Skills Page 4 of 4 <i>(California Preschool Curriculum Framework, Volume 2, pp. 139-175)</i>		
Substrand: Balance	Substrand: Locomotor Skills	Substrand: Manipulative Skills (gross motor and fine motor)
		Engage children in “heavy work” activities to develop trunk and should muscles
		Provide resistive activities to develop hand strength
		Provide activities to develop hand precision
		Assist children with proper fit and positioning of scissors
		Provide a variety of media for cutting with scissors
		Be aware of children’s handedness when providing assistance with fine motor activities

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Physical Development

Strand: Perceptual-Motor Skills and Movement Concepts

Page 1 of 3

(California Preschool Curriculum Framework, Volume 2, pp. 139-175)

Substrand: Body Awareness	Substrand: Spatial Awareness	Substrand: Directional Awareness
Use multisensory teaching strategies to reinforce children's learning	Set up obstacle courses	Provide opportunities for child-initiated play in areas with open space
Use body-parts vocabulary in the child's home language	Provide opportunities for children to experience moving at different levels of body positioning, ranging from high to low	Provide safe environments in which children can climb up and down
Use alternative communication methods, as appropriate, to teach body-parts vocabulary	Provide games for children to explore changing the size of their bodies	Encourage children to move in different directions and in different types of pathways (e.g., straight, curved, or zigzag) during group movement games
Use body-parts vocabulary in the natural context of daily living activities and child-initiated play	Play games that allow children to move around with objects balanced on different parts of their body	Design activities for children to practice moving alongside or in a line with other people
Introduce body-parts vocabulary during structured group games	Provide pushing and pulling games with peers	Play games that require children to coordinate moving with others to manage a physical object or prop
Engage children in singing and movement activities to teach body parts	Play games that require two to three children to work together to transport a large lightweight object	Provide opportunities for children to move and use their bodies with force
Encourage children to identify and describe body parts in books or in pictures of themselves and family members	Use dancing and musical games to promote the development of spatial awareness and body control	Provide opportunities for children to move and use their bodies lightly

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Physical Development

Strand: Perceptual-Motor Skills and Movement Concepts

Page 2 of 3

(California Preschool Curriculum Framework, Volume 2, pp. 139-175)

Substrand: Body Awareness	Substrand: Spatial Awareness	Substrand: Directional Awareness
Provide opportunities for dress-up play	Use positional-concepts vocabulary within the natural context of daily routines	Engage children in two-handed play activities
Provide opportunities for children to see external representations of their bodies	Have children participate in cleanup routines by putting away toys	Position drawing activities vertically
Provide constructional play for children to build or put together body parts	Engage children in helper roles by performing “heavy work” activities	Provide parent-play activities to reinforce directional concepts
Ask children to describe their drawings of people	Narrate or ask questions about children’s play using positional-concepts vocabulary in English and the child’s home language	Use the child’s home language for introducing directional-concepts vocabulary
	Engage children in songs and rhymes with body movements or spatial concepts	Adapt movement experiences as needed for children with physical disabilities
	Reinforce spatial concepts when reading or looking at books	
	Use props or play objects to guide children in positioning their bodies	
	Use the child’s home language to introduce spatial-concepts vocabulary	

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Physical Development		
Strand: Perceptual-Motor Skills and Movement Concepts Page 3 of 3 <i>(California Preschool Curriculum Framework, Volume 2, pp. 139-175)</i>		
Substrand: Body Awareness	Substrand: Spatial Awareness	Substrand: Directional Awareness
	Provide alternative ways for children with physical disabilities or other special needs to learn spatial concepts	
	Provide additional cues and assistance as needed to ensure safety for children who have spatial-awareness challenges	

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Physical Development Strand: Active Physical Play Page 1 of 2 <i>(California Preschool Curriculum Framework, Volume 2, pp. 139-175)</i>		
Substrand: Active Participation	Substrand: Cardiovascular Endurance	Substrand: Muscular Strength, Muscular Endurance, and Flexibility
Provide ample opportunities for children to engage daily in active play	Design the physical setting of the play environment to encourage moderate or vigorous physical activity	Encourage the development of muscular strength and endurance through building activities that involve performing “work” repeatedly
Create inviting activity environments in which children can be physically active	Engage children of all ability levels in activities that promote increased cardiovascular endurance	Promote cardiovascular endurance through repeated muscular endurance activities
Help children identify appropriate places for different types of physical activity	Promote increased cardiovascular endurance through chasing and fleeing activities	Promote muscular endurance and strength in the muscles of the upper body through the use of playground equipment that encourages climbing, hanging, and swinging
Create an activity environment that is nurturing and supportive and allows likely success	Promote cardiovascular endurance through the use of riding toys that require sustained pedaling or cranking	Allow for supervised risk taking
Encourage children to continue participation by providing opportunities for short but frequent rest periods during vigorous activity	Use imagery as an effective tool in promoting moderate to vigorous physical activity	Engage children in the setup of the lay space and the return of materials to their original space
Ensure that physical activity is sustained by providing personally meaningful and purposeful opportunities for children	Provide positive encouragement for participation	Promote increased joint flexibility through animal walks, nursery rhymes, and story plays

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Physical Development		
Strand: Active Physical Play Page 2 of 2 <i>(California Preschool Curriculum Framework, Volume 2, pp. 139-175)</i>		
Substrand: Active Participation	Substrand: Cardiovascular Endurance	Substrand: Muscular Strength, Muscular Endurance, and Flexibility
Recognize and take into account any environmental constraints	Promote increased physical activity through story plays	Encourage practice in fundamental movement skills and perceptual-motor activities that contribute to children's physical fitness
Encourage physical exploration through play equipment and materials	Promote cardiovascular endurance through dance and rhythmic activities	
Respect differences in children's temperament and find creative ways to engage all children in active physical play		

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Health

Strand: Health Habits

Page 1 of 2

(California Preschool Curriculum Framework, Volume 2, pp. 62-77)

Substrand: Basic Hygiene	Substrand: Oral Health	Substrand: Knowledge of Wellness	Substrand: Sun Safety
Teach children how to wash hands	Practice toothbrushing skills	Encourage children to explore and accept differences	Introduce vocabulary related to sun safety
Model basic hygiene and disease-prevention actions throughout the day	Include toothbrushing in the daily routine	Use correct terminology throughout the day	Integrate sun safety with emergency preparedness and safety
Remind children about health practices throughout the day	Integrate oral health and nutrition education through cooking activities	Familiarize children with health helpers	Encourage dramatic play
Incorporate handwashing and other health practices in the daily routine	Incorporate music	Establish special interest areas	Integrate sun safety with other health topics
Use visual aids to demonstrate invisible germs	Build communication and vocabulary skills	Integrate health promotion with other domains	Combine sun safety with other domains
Reinforce learning with stories and music	Encourage pretend play	Enhance children's knowledge and understanding through problem solving	Encourage decision making
Observe individual children attentively		Model and share information each day	Integrate sun safety into daily routines
			Promote sun safety everywhere every day, all year long

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Health			
Strand: Health Habits Page 2 of 2 <i>(California Preschool Curriculum Framework, Volume 2, pp. 62-77)</i>			
Substrand: Basic Hygiene	Substrand: Oral Health	Substrand: Knowledge of Wellness	Substrand: Sun Safety
			Ensure that children have access to appropriate sun safety items

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: Health
Strand: Safety Page 1 of 1 <i>(California Preschool Curriculum Framework, Volume 2, pp. 62-77)</i>
Substrand: Injury Prevention
Incorporate safety activities into the daily routine
Involve children in creating rules
Provide coaching and gentle reminders to help children follow safety rules
Promote independence while developing other skills
Provide time for children to practice individual skills
Introduce concepts and behaviors in simple steps
Role-play safety helpers
Practice problem solving
Introduce safety signs
Incorporate music

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Health

Strand: Nutrition

Page 1 of 1

(California Preschool Curriculum Framework, Volume 2, pp. 62-77)

Substrand: Nutrition Knowledge	Substrand: Nutrition Choices	Substrand: Self-Regulation of Eating
Introduce many different foods	Model and coach children's behavior	Offer a variety of nutritious, appetizing foods in small portions
Recognize and accommodate differences in eating habits and food choices	Encourage children to share information about family meals	Encourage children to chew their food well and eat slowly
Provide opportunities and encouragement in food exploration	Encourage role playing	Teach children to recognize signs of hunger
Integrate nutrition with other areas of learning through cooking activities	Serve meals and snacks family-style	Discuss how the body uses food
Show children where food is produced	Encourage tasting and decision making	Reinforce learning through the day
Establish special interest areas	Integrate nutrition education with other learning areas	Integrate eating with language and socialization
Integrate nutrition education with basic hygiene education	Provide choices for children	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: History–Social Science

Strand: Self and Society

Page 1 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 51-68)

Substrand: Culture and Diversity	Substrand: Relationships	Substrand: Social Roles and Occupations
Practice a reflective approach to build awareness of self and others	Develop quality, nurturing relationships with the children in your program	Design the early learning environment to encourage all children's active engagement in each area, regardless of gender, home language, or abilities
Maintain a healthy curiosity about the experiences of others	Model effective relationship skills as you interact with other adults and children	Provide children with play props for exploring occupations and work settings
Partner with families in goal setting and program design	Prepare an early learning environment and daily routine that foster peer interaction	Get to know the workers in your setting
Prepare an active learning environment that incorporates the full spectrum of the human experience	Teach children positive interaction strategies during large-group meetings	Convey respect for the roles of adults who work at home
Create an environment, both indoors and outdoors, that is inclusive of all children's abilities	Provide all children with coaching and appropriate prompts as they maneuver through peer relationships	Highlight the roles that elders play in family life and in society
Address children's initial comments and inquiries about diversity with honest, direct communication	Reinforce pro-social behavior and its impact on others	Incorporate books, magazines, and other forms of print that include images and stories of different workers
Converse about similarities and differences	Offer sensitive guidance as children experience challenges related to peer interactions and friendships	Include the pursuit of further education among work options

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: History–Social Science		
Strand: Self and Society Page 2 of 2 <i>(California Preschool Curriculum Framework, Volume 3, pp. 51-68)</i>		
Substrand: Culture and Diversity	Substrand: Relationships	Substrand: Social Roles and Occupations
Sing songs and share stories in different languages	Facilitate positive social problem solving	Invite family members to share their work experiences, including those that may diverge from traditional gender roles
Plan meaningful celebrations with support of the children and families	Read books that deal with the themes of friendship and relating to others	Talk about future career goals
Read and converse about books that accurately represent the lives and experiences of children		Visit community stores, businesses, and service providers to observe workers in action

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: History–Social Science

Strand: Becoming a Preschool Community Member (Civics)

Page 1 of 3

(California Preschool Curriculum Framework, Volume 3, pp. 69-85)

Substrand: Skills for Democratic Participation	Substrand: Responsible Conduct	Substrand: Fairness and Respect for Other People	Substrand: Conflict Resolution
Share control of the preschool environment with children	Set the tone for responsible conduct by creating a high-quality learning environment and thoughtfully scheduled daily routine	Maintain a culturally inclusive environment	Prevent conflicts by limiting program transitions and minimizing waiting time
Promote a sense of connection and community by using terms such as “we” and “our” when speaking with children and adults	Create community rules with children’s input	Model respect and care in everyday interactions	Model cooperation and care for others
Incorporate class meetings into the daily routine of older preschool children	Model the behaviors you expect	Use language that promotes concern and care for the community	Provide children with a calm presence in conflict situations
Support freedom of thought and speech in individual investigations, as well as in planned group experiences	Help children remember and meet community generated rules and expectations by providing both visual and auditory cues and prompts	Converse about the “whys” of fairness and respect	Use descriptive language to help children make sense of conflict
Generate community rules and expectations to protect the rights of each individual and to create a community of trust and security	Plan opportunities to further explore and converse about community rules during small- or large-group meetings	Teach social skills, such as patience and generosity, by using social stories and role-play experiences	Prompt children with open-ended questions and statements

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: History–Social Science

Strand: Becoming a Preschool Community Member (Civics)

Page 2 of 3

(California Preschool Curriculum Framework, Volume 3, pp. 69-85)

Substrand: Skills for Democratic Participation	Substrand: Responsible Conduct	Substrand: Fairness and Respect for Other People	Substrand: Conflict Resolution
Engage children in community brainstorming and problem solving	Redirect children's actions toward more appropriate behavior by using positive descriptions of what you expect children to do	Coach children during their interactions with peers	Involve children in the problem-solving process
Make group decisions when appropriate	Facilitate problem solving	Intervene and address negative interactions immediately	Create problem-solving kits
Acknowledge emotions related to group brainstorming and decision making	Reinforce responsible conduct by using descriptive language	Use storybooks to enhance children's understanding of ways to express feelings and build peer relationships	Read books related to social conflict
Model citizenship skills	Utilize books to build on the children's ability to empathize and extend care to others		Use "persona dolls" or puppets and social stories to promote skill development and perspective taking
Use guidance to redirect children to more appropriate actions and behavior	Assign tasks for community care, such as watering plants, feeding program pets, or helping to prepare snack, to help children practice responsibility		

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: History–Social Science			
Strand: Becoming a Preschool Community Member (Civics) Page 3 of 3 <i>(California Preschool Curriculum Framework, Volume 3, pp. 69-85)</i>			
Substrand: Skills for Democratic Participation	Substrand: Responsible Conduct	Substrand: Fairness and Respect for Other People	Substrand: Conflict Resolution
Reinforce behavior			
Create an inclusive environment that values and encourages the participation of children from all cultural and linguistic backgrounds as well as children with special needs			

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: History–Social Science

Strand: Sense of Time (History)

Page 1 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 86-102)

Substrand: Understanding Past Events	Substrand: Anticipating and Planning Future Events	Substrand: Personal History	Substrand: Historical Changes in People and the World
Use predictable routines to facilitate children's sense of time	Maintain a consistent daily routine so children can anticipate, predict, and follow through with program expectations	Share memories	Utilize familiar resources, such as parents, grandparents, family members, close friends and community members, to share their own childhood experiences
Incorporate time works into conversation	Converse with children about upcoming events	Ask questions to increase children's recollections of events	Read children's stories about different places and times to expand children's perspective
Create opportunities to converse with children about meaningful experiences and build connections between current and past events	Comment on behaviors that anticipate future events	Encourage children to express their feelings and reactions to experiences	Expose children to the arts
Listen attentively to children's narrative descriptions	Promote planning as children engage in child-initiated projects	Document children's work over time and create individual portfolios for each child	Observe changes in animals, plants, and the outdoors

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: History–Social Science

Strand: Sense of Time (History)

Page 2 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 86-102)

Substrand: Understanding Past Events	Substrand: Anticipating and Planning Future Events	Substrand: Personal History	Substrand: Historical Changes in People and the World
Communicate with awareness about children’s narrative style, noting preferences for time sequences, emotional cues, and other practices that influence the formation of mental “scripts”	Involve children in program planning	Acknowledge birthdays	Celebrate special events in a meaningful and authentic way
Document and display children’s work at their eye level to encourage recall and reflection	Introduce time-keeping tools to help children monitor the passage of time	Provide activities that invite personal reflection	Record significant events on a large calendar to create a program history
Sing songs, recite poetry, and read books that involve sequencing	Talk with children using time words	Make use of children’s stories that explore growth and individual change	Provide children with hands-on experiences with concrete artifacts and historical objects (e.g., toys, utensils, tools)

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: History–Social Science

Strand: Sense of Place (Geography and Ecology)

Page 1 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 103-116)

Substrand: Navigating Familiar Locations	Substrand: Caring for the Natural World	Substrand: Understanding the Physical World Through Drawings and Maps
Supply open-ended materials in the indoor and outdoor early learning environment to promote exploration of spatial relationships	Use children's current knowledge to plan effective curriculum	Engage children in a conversation about maps
Describe your own actions as you travel between locations	Set aside time for outdoor explorations each day	Supply the learning environment with a variety of blocks and other open-ended materials to support the symbolic representation of the world the children see and experience each day
Play games about how to get from here to there	Provide children with sensory experiences, especially those with sand and water	Incorporate maps in dramatic play experiences
Engage children in conversation about how they travel to and from preschool each day	Integrate living things into the indoor learning environment	Provide children with map-making tools in both the indoor and outdoor preschool settings
Take walks through familiar locations and neighboring areas	Observe life in its natural setting	Capitalize on children's initiative in exploring maps
Converse about the here and now as well as encouraging later reflection	Model respect and care for the natural world	Utilize maps while planning and attending group outings, in preparation for safety exercises (e.g., fire drills), and as children join the program or move to a new home

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: History–Social Science

Strand: Sense of Place (Geography and Ecology)

Page 2 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 103-116)

Substrand: Navigating Familiar Locations	Substrand: Caring for the Natural World	Substrand: Understanding the Physical World Through Drawings and Maps
Locate and explore local landmarks	Use descriptive language to converse about the earth and its features	Play board games that use trails and pathways
Promote children’s understanding of weather and its impact on their day-to-day experiences	Compare and contrast living and nonliving things	Make a map of the early learning environment
Comment on weather patterns and invite children to share their observations	Teach young children easy ways to conserve the earth’s resources	Invite children to use their imagination and create maps to go along with familiar stories
Read aloud books and engage children in storytelling related to navigating familiar locations and daily routines	Grow a garden in the program’s outdoor space	View locations from different physical perspectives
	Eat fresh produce at snack time and obtain food directly from a local gardener, farmers market, or food vendor when possible	Prepare a treasure hunt
	Use books to extend children’s investigations of the earth and its attributes	Document work over time

Sample Interactions and Strategies by Domain, Strand, and Substrand

 Domain: History–Social Science		Strand: Marketplace (Economics) Page 1 of 1 <i>(California Preschool Curriculum Framework, Volume 3, pp. 117-122)</i>	
		Substrand: Exchange	
		Introduce economic concepts (e.g., production, exchange, consumption) through children’s books	
		Provide open-ended materials to support children’s spontaneous investigations of business and the economy	
		Offer dramatic play experiences that allow children to explore economic concepts	
		Explore alongside children, expanding on their initiative	
		Draw attention to trends of consumption in the preschool setting	
		Converse about wants and needs	
		Allow children to make economic decisions	
		Explore all forms of exchange	
		Visit local businesses	
		Create an opportunity for children to make their own product	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Science

Strand: Scientific Inquiry

Page 1 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 159-175)

Substrand: Observation and Investigation	Substrand: Documentation and Communication
Facilitate children’s observation skills	Encourage children to record observations and document investigations and findings
Introduce children to the process of observing	Introduce children to the idea of recording
Introduce the term “observe” to children	Promote the use of different forms to record and document information
Encourage children to describe their observations	Consider adaptations for children with special needs
Invite children to observe objects and phenomena related to the current focus of inquiry	Encourage children to describe their representations while you write their words
Invite children to record their observations	Encourage different means of communication
Promote the use of scientific tools to extend children’s observations and investigations of objects	Invite children to record collaboratively, using charts, graphs, or models
Introduce children to scientific tools and their function	Ask open-ended questions • Questions to encourage children to share their observations • Questions to facilitate children’s problem-solving and investigations • Questions to elicit children’s predictions and explanations
Suggest language to introduce magnifiers to children	Engage children in collaborative discussions
Support children in using the tools	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Science

Strand: Scientific Inquiry

Page 2 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 159-175)

Substrand: Observation and Investigation	Substrand: Documentation and Communication
Facilitate children's abilities to sort, classify, and identify patterns	
Ask questions and model comparative language to introduce the idea of comparing	
Invite children to compare and contrast objects and phenomena related to their current focus of inquiry	
Encourage children to make predictions	
Introduce children to the idea of predicting	
Encourage children to first <i>predict</i> and then <i>check</i>	
Elicit children's predictions by asking questions	
Remind children that predictions do not have to be right	
Record children's predictions	
Facilitate children's ability to make inferences and draw conclusions	
Use everyday observations to model inferring	
Encourage children to explain the reasoning behind their inferences	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Science

Strand: Physical Sciences

Page 1 of 1

(California Preschool Curriculum Framework, Volume 3, pp. 176-195)

Substrand: Properties and Characteristics of Nonliving Objects and Materials	Substrand: Changes in Nonliving Objects and Materials
Provide children with opportunities to explore a variety of objects and materials in the daily environment	Avoid presenting children with activities of “magical” science
Prepare yourself and be purposeful about the scientific concepts children will investigate while engaged with objects and materials	Select activities or projects in which children can vary their actions on objects and observe the immediate reactions to their actions
Engage children in projects that allow them to explore, experiment, and invent with objects and materials for an extended period of time	Use cooking activities as opportunities to reason about transformations in materials
Experiment with materials and objects before offering them to children	Invite children to set up an experiment and collect and analyze data
Invite children to observe and describe the characteristics and physical properties of the objects and materials they investigate	Focus children’s attention on the effect of one aspect (variable) at a time
Plan opportunities for children to sort and classify objects and materials and reflect on similarities and differences	Lead children to make predictions about what they expect to happen
Provide children with opportunities to build and experiment with simple machines	Ask questions to raise children’s awareness of how they produced an effect
Provide children with opportunities to investigate the form and function of different tools and machines	Encourage children to record and document investigations with objects and materials

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Science

Strand: Life Sciences

Page 1 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 196-214)

Substrand: Properties and Characteristics of Living Things	Substrand: Changes in Living Things
Focus children's explorations on key concepts of living things	Provide children with opportunities to care for plants and animals
Take children on outdoor explorations of plants and animals • Model curiosity and interest in nature • Remind children to be respectful of nature • Engage children in conversations about what they notice and point their attention to important aspects of living things • Document children's outdoor explorations	Provide children with opportunities to observe and monitor plants' growth and development • Provide children with a variety of planting experiences • Invite children to experiment and test what plants need in order to live • Invite children to predict what plants will look like as they grow • Encourage children to notice changes in their plants' growth • Invite children to measure the growth of plants • Invite children to record the growth of plants • Engage children in reflective conversations in small or large groups • Involve families in children's planting and gardening experiences
Provide children with tools for explorations of living things	Provide children with opportunities to observe changes and transformations in animals passing through stages of the life cycle • Invite children to predict changes and closely observe animals passing through different stages of a life cycle • Invite children to record and document their observations of changing animals • Encourage children to compare life cycles of different animals
Include plants and animals indoors	Discuss the death of living things

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Science

Strand: Life Sciences

Page 2 of 2

(California Preschool Curriculum Framework, Volume 3, pp. 196-214)

Substrand: Properties and Characteristics of Living Things	Substrand: Changes in Living Things
Engage children in close observations of living things • Close observations of animals • Close observations of plants • Explorations of fruits and vegetables	Invite children to investigate their own growth
Invite children to share in-home experiences with living things	
Use books to enrich and extend children's study of living things	

Sample Interactions and Strategies by Domain, Strand, and Substrand



Domain: Science

Strand: Earth Sciences

Page 1 of 1

(California Preschool Curriculum Framework, Volume 3, pp. 176-229)

Substrand: Properties and Characteristics of Earth Materials and Objects	Substrand: Changes in the Earth
Take children on a search for earth materials in nature	Engage children in observing and describing the sun and the moon and other natural objects in the sky
Invite children to observe, compare and classify earth materials	Provide children with opportunities to observe, record, and discuss the weather • Develop an awareness of the daily weather • Invite children to record and discuss changes in the weather • Invite children to observe and discuss the effects of weather and seasonal changes on their life and the environment around them • Engage families in children’s explorations of weather and seasonal changes
Invite children to explore and experiment with earth materials	Model and discuss respect for the environment
Use opportunities to explore earth materials in the context of studying living things or when exploring other solid and nonsolid materials	Engage children in caring for and protecting the environment through everyday routines in the preschool environment
Invite children to share in-home experiences with earth materials	Collect and use recycled materials

Appendix E

Overarching Principles and Domain Guiding Principles for All Domains of the *California Preschool Curriculum Framework*

All three volumes of the preschool curriculum framework were developed with eight overarching principles in mind—principles that are grounded in early childhood research and practice. These principles emphasize individually, culturally, and linguistically responsive learning experiences and environments for young children.

Additionally, for each domain of the three volumes of the *California Preschool Curriculum Framework*, there is a section listing guiding principles specifically for that domain. These principles are research-based and follow guidelines for developmentally appropriate practice.

Appendix E is a comprehensive overview, which includes the eight overarching principles as well as the domain guiding principles for each of the nine domains. This resource can be useful for explorations within individual domains or for working across domains. These principles are listed as presented in the three volumes of the *California Preschool Curriculum Framework*. All are equally important and are not listed with priority.

California Preschool Curriculum Framework, Volume 1

- Social-Emotional Development
- Language and Literacy
- English-Language Development
- Mathematics

California Preschool Curriculum Framework, Volume 2

- Visual and Performing Arts
- Physical Development
- Health

California Preschool Curriculum Framework, Volume 3

- History–Social Science
- Science

Overarching Principles and Domain Guiding Principles All Domains of the *California Preschool Curriculum Framework*

Overarching Principles							
Relationships are central	Play is a primary context for learning	Learning is integrated	Intentional teaching enhances children's learning experiences	Family and community partnerships create meaningful connections	Individualization of learning includes all children	Responsiveness to culture and language supports children's learning	Time for reflection and planning enhances teaching

Social-Emotional Development Domain Guiding Principles

-  Support social-emotional development with intentionality
-  Attend to the impact of overall program design on social-emotional development
-  Utilize curriculum practices that support healthy social-emotional development
-  Encourage play-based active learning

Language and Literacy Domain Guiding Principles

-  Language and literacy work together
-  Children say or sign what they hear or see
-  Children learn everywhere
-  Children learn best from experiences that are interest, useful, and fun
-  Celebrate and support the individual
-  Connect school and home
-  Create a culturally sensitive environment
-  Encourage children to take a turn
-  Make thoughts more explicit to children by thinking out loud
-  Support Curiosity and confidence
-  Create literacy-rich environments
-  Observe children

English-Language Development Domain Guiding Principles

-  Families matter
-  Recognize existing language and literacy strength in the home language
-  Respect cultural values and behaviors reflected in the child's language and communication
-  Allow the child use of the home language to have immediate access to the entire curriculum, concept development, and high levels of interaction
-  Support English-language development across all domains
-  Use language as a meaningful tool to communicate
-  Make children's learning interesting and fun for English learners
-  Accept code switching as normal
-  Give preschool English learners time
-  Allow for children's voluntary participation

Overarching Principles and Domain Guiding Principles All Domains of the *California Preschool Curriculum Framework*

Overarching Principles							
Relationships are central	Play is a primary context for learning	Learning is integrated	Intentional teaching enhances children's learning experiences	Family and community partnerships create meaningful connections	Individualization of learning includes all children	Responsiveness to culture and language supports children's learning	Time for reflection and planning enhances teaching

Mathematics Domain Guiding Principles

-  Build on preschool children's natural interest in mathematics and their intuitive and informal mathematical knowledge
-  Encourage inquiry and exploration to foster problem solving and mathematical reasoning
-  Use everyday activities as natural vehicles for developing preschool children's mathematical knowledge
-  Introduce mathematical concepts through intentionally planned experiences
-  Provide a mathematically rich environment
-  Provide an environment rich in language, and introduce preschool children to the language of mathematics
-  Support English learners in developing mathematical knowledge as they concurrently acquire English
-  Observe preschool children and listen to them
-  Recognize and support the individual
-  Establish a partnership with parents and other caregivers in supporting children's learning of mathematics

Visual and Performing Arts Domain Guiding Principles

-  The arts are inclusive of all children
-  The arts a language that is common to all
-  The arts promote dispositions for learning
-  Children make their own meaning
-  Children are capable of creating original art in all its forms
-  Children learn about human connections, beauty, and appreciation of the arts
-  The child's work is play
-  Children are active learners who thrive when challenged appropriately
-  Arts experiences for preschoolers are more about process than product
-  The arts reinforce the integrated nature of learning
-  Cultural competence is approached through art
-  The arts are motivating and engaging for learners
-  Art can nurture the nurturer
-  The arts provide a unique means for families to interact

Overarching Principles and Domain Guiding Principles All Domains of the *California Preschool Curriculum Framework*

Overarching Principles							
Relationships are central	Play is a primary context for learning	Learning is integrated	Intentional teaching enhances children's learning experiences	Family and community partnerships create meaningful connections	Individualization of learning includes all children	Responsiveness to culture and language supports children's learning	Time for reflection and planning enhances teaching

Physical Development Domain Guiding Principles

- 🍌 Developmentally appropriate movement programs accommodate a variety of individual differences among children
- 🍌 Children often learn best through maximum participation
- 🍌 The physical safety of children's play environments should be of paramount importance at all times
- 🍌 Family members working as partners with teachers are key to enriching the physical development of children
- 🍌 Inclusion of children with special needs is beneficial to all and promotes greater understanding of and respect for diversity
- 🍌 Children are multisensory learners with unique learning styles
- 🍌 To maximize teaching effectiveness, movement skill learning should first focus on *how* children are moving their bodies
- 🍌 Children generally learn new movement skills more easily when they can focus on one specific aspect of the skill at a time
- 🍌 Children benefit from ample opportunities to practice new physical skills
- 🍌 Children benefit from integrated learning activities across the curriculum
- 🍌 Frequency, intensity, type, and duration are the four key parameters to designing active physical play to enhance children's fitness and health

Physical Development Domain Guiding Principles

- 🍌 Physical skills are more easily learned when clear instructions and appropriate feedback are provided in children's home language using familiar communication methods

Health Domain Guiding Principles

- 🍌 Health knowledge is individualized
- 🍌 Preschool children and their families possess diverse backgrounds and cultural practices
- 🍌 Learning about health practices has a language component
- 🍌 Children's personal health status (i.e., physical, mental, emotional) affects their ability to learn and develop in all domains
- 🍌 The overall theme of health education for preschool is personal health
- 🍌 Children learn through their experiences, including play, routines and scripts, modeling, and developing and sustaining relationships at preschool
- 🍌 Practicing *scripts*, or behavioral rules, can foster development of certain health-promoting behaviors or skills
- 🍌 The preschool program provides both indoor and outdoor environments that are safe and appropriate, challenging, and inviting for all children
- 🍌 Teachers help children feel secure by assuring them that there are adults who will take care of them (e.g., parents, family members, teachers, health care providers, special-needs assistants).

Overarching Principles and Domain Guiding Principles All Domains of the *California Preschool Curriculum Framework*

Overarching Principles							
Relationships are central	Play is a primary context for learning	Learning is integrated	Intentional teaching enhances children's learning experiences	Family and community partnerships create meaningful connections	Individualization of learning includes all children	Responsiveness to culture and language supports children's learning	Time for reflection and planning enhances teaching

History–Social Science Domain Guiding Principles

-  Build a cooperative, inclusive preschool community
-  Create activities that will actively engage children's social skills and understanding
-  Affirm children's home cultures, experiences, and values
-  Encourage children's social curiosity
-  Model social behavior and attitudes with explanations
-  Actively teach and practice the essential skills of democratic participation
-  Encourage children to incorporate their knowledge of adult roles and occupations into their dramatic play
-  Observe and converse with children during play in order to learn about their current understanding of time and history
-  Help children deepen their own sense of place
-  Nurture children's sense of wonder about nature

Science Domain Guiding Principles

-  The preschool environment supports children's curiosity and encourages inquiry and experimentation
-  Content of inquiry is developmentally appropriate and builds on children's prior experiences
-  Scientific inquiry experiences are interesting and engaging for children and teachers
-  Children explore scientific concepts directly through active, hands-on, minds-on playful experiences
-  Children explore scientific concepts in depth through multiple, related learning experiences over time
-  Children construct knowledge through social interactions with peers and adults
-  Children use language and other forms of communication to express their thoughts, describe observations, and document their work
-  Teachers support children who are English learners in understanding and communicating scientific knowledge and skills
-  Science is embedded in children's daily activities and play and provides a natural vehicle for integrating mathematics, literacy, and other content areas
-  Individual differences are recognized, and all children are included and supported
-  The preschool environment, home, and community are connected through science

Appendix F

Related Links and Resources

CDE/ECE Faculty Initiative Project

<http://facultyinitiative.wested.org/>

WestEd

<http://www.wested.org>

Instructional Guides from the Faculty Initiative Project

Instructional Guide for the Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide, Second Edition

<http://facultyinitiative.wested.org/pelguide.html>

Instructional Guide for the California Preschool Learning Foundations, Volume 1

<http://facultyinitiative.wested.org/PLF/>

Instructional Guide for the California Preschool Curriculum Framework, Volume 1

<http://facultyinitiative.wested.org/PCF/>

Instructional Guide for the California Preschool Learning Foundations, Volume 2

<http://facultyinitiative.wested.org/PLFv2/>

Instructional Guide for the California Preschool Curriculum Framework, Volume 2

<http://facultyinitiative.wested.org/PCFv2/>

Instructional Guide for the California Preschool Learning Foundations, Volume 3

<http://facultyinitiative.wested.org/PLFv3/>

Instructional Guide for the California Preschool Curriculum Framework, Volume 3

<http://facultyinitiative.wested.org/PCFv3/>

California Preschool Learning Foundations, Volume 1 and Related Resources

California Preschool Learning Foundations, Volume 1 (2008) Publication Download (PDF)

<http://www.cde.ca.gov/sp/cd/re/documents/preschool1f.pdf>

California Preschool Learning Foundations, Volume 1 Order Form

<http://www.cccoe.k12.ca.us/edsvcs/PDFs/cpin/2011/PLFV1OrderForm.pdf>

California Preschool Learning Foundations FAQ

<http://www.cde.ca.gov/sp/cd/re/psfoundationsfaq.asp>

California Preschool Learning Foundations, Volume 2 and Related Resources

California Preschool Learning Foundations, Volume 2 (2010) Publication Download (PDF)
<http://www.cde.ca.gov/sp/cd/re/documents/psfoundationsvol2.pdf>

California Preschool Learning Foundations, Volume 2 Order Information
<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001708>

California Preschool Learning Foundations FAQ
<http://www.cde.ca.gov/sp/cd/re/psfoundationsfaq.asp>

California Preschool Learning Foundations, Volume 3 and Related Resources

California Preschool Learning Foundations, Volume 3 (2012) Publication Download (PDF)
<http://www.cde.ca.gov/sp/cd/re/documents/preschoolfoundationsvol3.pdf>

California Preschool Learning Foundations, Volume 3 Order Information
<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001727>

California Preschool Learning Foundations FAQ
<http://www.cde.ca.gov/sp/cd/re/psfoundationsfaq.asp>

Appendix B: The Foundations – An Overview of the *Alignment of the California Preschool Learning Foundations with Key Early Education Resources*
<http://www.cde.ca.gov/sp/cd/re/documents/preschoolfoundationsvol3.pdf#appendixb>

California Preschool Curriculum Framework, Volume 1 and Related Resources

California Preschool Curriculum Framework, Volume 1 (2010) Publication Download (PDF)
<http://www.cde.ca.gov/sp/cd/re/documents/psframeworkkvol1.pdf>

California Preschool Curriculum Framework, Volume 1 Order Information
<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001682>

Corrected Page 303 of the California Early Learning and Development System
<http://www.cde.ca.gov/sp/cd/re/documents/psfrmwkp303.pdf>

California Preschool Curriculum Framework, Volume 2 and Related Resources

California Preschool Curriculum Framework, Volume 2 (2011) Publication Download (PDF)
<http://www.cde.ca.gov/sp/cd/re/documents/psframeworkvol2.pdf>

California Preschool Curriculum Framework, Volume 2 Order Information
<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001716>

California Preschool Curriculum Framework, Volume 3 and Related Resources

California Preschool Curriculum Framework, Volume 3 (2013) Publication Download (PDF)
<http://www.cde.ca.gov/sp/cd/re/documents/preschoolframeworkvol3.pdf>

California Preschool Curriculum Framework, Volume 3 Order Information
<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001733>

Resources for the Prekindergarten Learning and Development Guidelines

Prekindergarten Learning and Development Guidelines

<http://www.cde.ca.gov/sp/cd/re/prekguide.asp>

Prekindergarten Learning and Development Guidelines: Table of Contents

<http://www.cde.ca.gov/sp/cd/re/prekcontents.asp>

First Class: A Guide for Early Primary Education (PDF)

<http://www.cde.ca.gov/sp/cd/re/documents/firstclass.pdf>

Resources for Young Dual Language Learners

Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning, Second Edition (2009) Publication Download (PDF)

<http://www.cde.ca.gov/sp/cd/re/documents/psenglearnersed2.pdf>

Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide, (Second Edition) Order Form

<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001703>

Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning, Spanish Edition Ordering Information

<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001680>

California's Best Practices for Young Dual Language Learners Research Overview Pages

<http://www.cde.ca.gov/sp/cd/ce/documents/dllresearchpapers.pdf>

A World Full of Language: Supporting Preschool English Learners (DVD)

<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001673>

Resources for Desired Results for Children and Families

Desired Results access Project

<http://www.draccess.org>

Desired Results System

<http://www.cde.ca.gov/sp/cd/ci/desiredresults.asp>

Desired Results Training and Technical Assistance Project

<http://www.desiredresults.us/>

DRDPtech CLOUD

http://desiredresults.us/form_drdp_tech.htm

Desired Results Developmental Profile – School Readiness (DRDP-SR)

<http://drdpsr.org>

Resources for Desired Results for Children and Families – Continued

Getting to Know You Through Observation

<http://www.wested.org/resources/getting-to-know-you-through-observation/>

Watching My Child Grow

http://www.desiredresults.us/for_families.htm

California Department of Education Resources

The Alignment of the California Preschool Learning Foundations with Key Early Education Resources

<http://www.cde.ca.gov/sp/cd/re/documents/psalignment.pdf>

Best Practices for Dual-Language Learners

<http://www.cde.ca.gov/sp/cd/ce/documents/dllresearchpapers.pdf>

California Comprehensive Early Learning Plan

<http://www.cde.ca.gov/sp/cd/ce/documents/compearlylearningplan2013.pdf>

California Department of Education (CDE)

<http://www.cde.ca.gov>

CDE Transitional Kindergarten Implementation Guide

<http://www.cde.ca.gov/ci/gs/em/documents/tkguide.pdf>

Early Education and Support Division (formerly Child Development Division)

<http://www.cde.ca.gov/re/di/or/cdd.asp>

Pathways to Cultural Competence Project Program Guide

http://www.wested.org/facultyinitiative/docs/Pathways_to_Cultural_Competence_Project_Program_Guide.pdf

California Early Childhood Educator Competencies Resources

California Early Childhood Educator Competencies

<http://www.cde.ca.gov/sp/cd/re/documents/ececompetencies2011.pdf>

California Early Childhood Educator Competencies Mapping Tool

<http://www.childdevelopment.org/cs/cip/print/htdocs/mt/home.htm>

CompSAT – The Portfolio Protocol

<http://www.ececompsat.org/portfolio-protocol.html>

Local Quality Improvement Efforts and Outcomes Descriptive Study

<http://www.cde.ca.gov/sp/cd/ce/documents/localqieffortexecsum.pdf>

Race to the Top Early Learning Challenge

<http://www.cde.ca.gov/sp/cd/rt/rttelcapproach.asp>

Early Childhood Education Resources

All About Young Children

<http://allaboutyoungchildren.org>

Asian & Pacific Islanders California Action Network (APIsCAN)

<http://www.apiscan.org>

Association for Child Education International

<http://acei.org>

California Association for Bilingual Education (CABE)

<http://www.bilingualeducation.org>

California Association for the Education of Young Children (CAEYC)

<http://www.caeyc.org>

California Child Development Administrators Association

<http://www.ccdaa.org>

California Community College Early Childhood Educators

<http://cccece.net>

California Collaborative on the Social & Emotional Foundations for Early Learning (CA CSEFEL)

<http://cainclusion.org/camap/cacsefel.html>

California Department of Education (CDE)

<http://www.cde.ca.gov>

California Early Childhood Mentor Program

<http://www.ecementor.org>

California MAP to Inclusion & Belonging: Making Access Possible

<http://cainclusion.org/camap>

California Preschool Instructional Networks (CPIN)

<http://cpin.us>

California School-Age Consortium

<https://calsac.org>

California State Advisory Council on Early Learning and Care

<http://www.cde.ca.gov/sp/cd/ce/>

Center for Excellence in Child Development

<http://humanservices.ucdavis.edu/childdev>

Center for the Study of Child Care Employment

<http://www.irle.berkeley.edu/cscce>

Early Childhood Education Resources – Continued

Center on the Social and Emotional Foundations for Early Learning
<http://csefel.vanderbilt.edu>

Child Development Division (CDD)
<http://www.cde.ca.gov/sp/cd>

Child Development Training Consortium (CDTC)
<https://www.childdevelopment.org>

Commission for Teacher Credentialing (CTC)
<http://www.ctc.ca.gov>

Curriculum Alignment Project (CAP)
https://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm

Early Learning Quality Improvement System (EL QIS) Advisory Committee
<http://www.education.ca.gov/sp/cd/re/sb1629committee.asp>

Environment Rating Scales
<http://ers.fpg.unc.edu>

First 5 California
<http://www.ccfc.ca.gov>

Head Start
<http://www.acf.hhs.gov/programs/ohs>

Mexican American Legal Defense & Educational Fund (MALDEF)
<http://maldef.org/education>

National Association for the Education of Young Children (NAEYC)
<http://www.naeyc.org>

NAEYC Resources for Early Childhood Educators (PDF)
<http://www.naeyc.org/files/yc/file/200707/ClusterResources.pdf>

National Black Child Development Institute (NBCDI)
<http://www.nbcdi.org>

National Board for Professional Teaching Standards (NBPTS)
<http://www.nbpts.org>

National Center for Research on Early Childhood Education
<http://curry.virginia.edu/research/centers/castl/project/ncrece>

Early Childhood Education Resources – Continued

National Council of La Raza: Early Care and Education

http://www.nclr.org/index.php/issues_and_programs/education/ece

National Institute for Early Education Research

<http://nieer.org>

National Task Force on Early Childhood Education for Hispanics (PDF)

<http://policy.rutgers.edu/faculty/curenton/Garcia3-17-11.pdf>

North American Reggio Emilia Alliance

www.reggioalliance.org

Society for Research in Child Development

<http://srcd.org>

Voices for African American Students, Inc (VAAS) (PDF)

<http://www.corelearn.com/backup/calendar/documents/NormaBaker3.pdf>

WestEd: Center for Child and Family Studies

<http://www.wested.org/program/center-for-child-family-studies>

Infant/Toddler Resources

Infant/Toddler Curriculum Framework

<http://www.cde.ca.gov/sp/cd/re/itframework.asp>

Infant/Toddler Learning & Development Foundations

<http://www.education.ca.gov/sp/cd/re/itfoundations.asp>

Infant/Toddler Learning & Development Program Guidelines

<http://www.education.ca.gov/sp/cd/re/documents/itguidelines.pdf>

Program for Infant/Toddler Care (PITC)

<http://www.pitc.org>

ZERO TO THREE

<http://www.zerotothree.org>