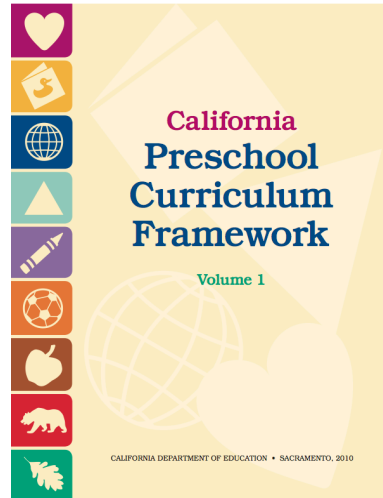


Organization and Rationale of the Mathematics Domain



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1

Mathematics Domain Strands

Number Sense

- 1.0 Understanding Number and Quantity
- 2.0 Understanding Number Relationships and Operations

Algebra and Functions (Classification and Patterning)

- 1.0 Classification
- 2.0 Patterning

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2

Mathematics Domain Strands

Measurement

1.0 Compare, Order, and Measure Objects

Geometry

1.0 Shapes

2.0 Positions in Space

Mathematical Reasoning

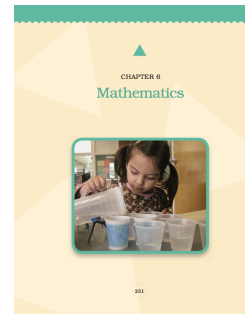
1.0 Promoting Mathematical Reasoning and Problem Solving

Rationale for the Mathematics Domain

- What were some of the main concepts or points in your summaries?
- Which ones were similar to your partner's? Which ones were different?
- What insights about planning mathematical learning environments and experiences are starting to emerge for you? What questions or concerns?
- What will you want to keep in mind about young children and mathematics?

Organization of the Mathematics Domain

- Domain Guiding Principles
- Environments and Materials
- Summary of the Strands and Substrands
- Strands
- Substrands
- Research Highlights
- Engaging Families
- Questions for Reflection



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Organization of the Mathematics Domain

- Vignettes
- Teachable moments
- Interactions and strategies



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Organization of the Mathematics Domain

- What stood out for you when you looked at organizational charts of the mathematics domain?
- What surprised you? Which substrand had elements that were the most familiar to you? The most unfamiliar?
- What patterns did you see in the organizational structure of the domain?
- How might you use this organizational chart of the domain as a reference for your work in planning mathematical environments and learning experiences for children?

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Guiding Principles for the Mathematics Domain

- ✓ 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

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Guiding Principles for the Mathematics Domain

- ✓ 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

Guiding Principles for the Mathematics Domain

- ✓ 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

Guiding Principles for the Mathematics Domain

- Which domain principle(s) stood out for you?
- Which ones were familiar and consistent with what you already know about young children and mathematics? Which ones were new to you?
- Why do you think these principles are relevant in planning curriculum to support children's mathematics knowledge and skills?
- Which principle do you want to learn more about? How could you do that?

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Rationale, Guiding Principles, and Organization of the Mathematics Domain

- What concepts or information stood out for you?
- What was clear? What might have been confusing?
- What was useful in helping you understand the overall content and structure of this domain?
- How might you apply this understanding in your current or future work? What additional supports might you need?



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- What ideas stood out most for you today?
- Which ones reinforced what you have already learned or experienced? Which ones gave you a new perspective or insight?
- How might you apply a new perspective to your work now or in the future?
- What further information or support do you need?
- What first step do you need to take?