Early Childhood Mathematics Instructional Model

Purpose:

- To establish equitable instructional practices that connects the resources, standards, and assessments to accelerate student learning.
- APS Instructional Models provide content instruction that is differentiated by language proficiency levels in order to teach students the academic language necessary to engage in grade level standards.

Equitable Early Childhood math instruction is grounded in…

Elements of Instruction	Conceptual Understanding	Procedural Fluency Following conceptual understanding	Discourse	Standards for Mathematical Practices
	Number Sense Geometry Measurement Sorting and Classification	Counting	Development of mathematical language comes from rich experiences that encourage communication	Approaches to learning
Best Practices	• Provide ample time, materials and teacher supports for children to engage in play, a context in which they actively explore and manipulate mathematical ideas • Engage children's thinking and interest in mathematics • Provoke questions, problem solving and reasoning • Stimulate a search for meaning through sustained interaction with key mathematical ideas • Encourage children to look for connections and relations • Help children make sense of the mathematics in which they are engaged			
Approaches	• Exploration time • Circle time • Child directed learning time • Teacher directed small group time • Learning with others throughout the day			
Core Resources	**Quarterly Content Planners** ←→ Creative Curriculum Mathematics in the Creative Curriculum Classroom Developing Math Concepts in the PreK Classroom-Kathy Richardson			
Assessments	**Teaching Strategies GOLD Objectives for Development and Learning** ←→ ***Kathy Richardson Assessing Number Concepts*** Counting Objects Assessment Number Arrangements			

Implementation Phases: The best practices implemented by teachers at each phase are foundational and build on each other to produce rigorous and relevant instruction at each phase.

Instructional Focus-Phase One The Teaching & Learning cycle and the Conditions for Learning are used to implement:	**Instructional Focus- Phase Two** The Teaching & Learning cycle and the Conditions for Learning are used to implement:	**Instructional Focus- Phase Three** The Teaching & Learning cycle and the Conditions for Learning are used to implement:

• Structure of the Day
  ○ Whole group
  ○ Daily routines
  ○ Choice time
  ○ Small group
• Learning Environment
  ○ Physical arrangement
  ○ 8 learning areas offered daily
• Classroom Community
  ○ Build/ promote positive relationships
  ○ Establish rules, routines and procedures
  ○ Plan for transitions
	• Structure of the Day
	  ○ Whole group
	  ○ Daily routines
	  ○ Choice time
	  ○ Small group
	• Learning Environment
	  ○ Physical arrangement
	  ○ 8 learning areas offered daily
	  ○ Learning areas include a separate math area
	• Classroom Community
	• Quarterly Content Planning
	• Daily whole group math instruction
	  ○ Posing questions or specific problems to solve during choice time
	  ○ Work with small groups during choice time
		• Structure of the Day
		  ○ Whole group
		  ○ Daily routines
		  ○ Choice time
		  ○ Small group
		• Learning Environment
		  ○ Learning areas include a separate math area
		• Classroom Community
		• Quarterly Content Planning
		• Daily whole group math instruction
		  ○ Posing questions or specific problems to solve during choice time
		  ○ Work with small groups during choice time
		• Small group instruction

Living document
1/6/2015