PEEP Science Curriculum

Correlated to the Head Start Outcomes Frameworks

● = primary skill developed in the curriculum
○ = secondary skill developed in the curriculum

DOMAIN	DOMAIN ELEMENT	INDICATORS	Shadows	Water	Plants	Color	Sound	Ramps
Language Development	Receptive Language	Attends to language during conversations, songs, stories, or other learning experiences.	○	○	○	○	○	○
		Comprehends increasingly complex and varied vocabulary.	●	●	●	●	●	●
		Comprehends different forms of language, such as questions or exclamations.	●	●	●	●	●	●
		Comprehends different grammatical structures or rules for using language.	○	○	○	○	○	○
	Expressive Language	Engages in communication and conversation with others.	●	●	●	●	●	●
		Uses language to express ideas and needs.	●	●	●	●	●	●
		Uses increasingly complex and varied vocabulary.	●	●	●	●	●	●
		Uses different forms of language.	●	●	●	●	●	●
		Uses different grammatical structures for a variety of purposes.	○	○	○	○	○	○
		Engages in storytelling.						
		Engages in conversations with peers and adults.	●	●	●	●	●	●

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DOMAIN	DOMAIN ELEMENT	INDICATORS	Shadows	Water	Plants	Color	Sound	Ramps
Mathematics Knowledge & Skills	Number Concepts & Quantities	Recognizes numbers and quantities in the everyday environment.	●	●	●	●	●	●
		Recites numbers in the correct order and understands that numbers come "before" or "after" one another.	O	O	O	O	O	O
		Associates quantities and the names of numbers with written numerals.	O	O	O	O		O
		Uses one-to-one counting and subitizing (identifying the number of objects without counting) to determine quantity.		O	O			O
		Uses the number name of the last object counted to represent the number of objects in the set.						
	Number Relationships & Operations	Uses a range of strategies, such as counting, subitizing, or matching, to compare quantity in two sets of objects and describes the comparison with terms, such as more, less, greater than, fewer, or equal to.			O	O		O
		Recognizes that numbers (or sets of objects) can be combined or separated to make another number through the grouping of objects.			O			O
		Identifies the new number created when numbers are combined or separated.						
	Geometry & Spatial Sense	Recognizes and names common shapes, their parts, and attributes.						O
		Combines and separates shapes to make other shapes.						
		Compares objects in size and shape.	O					O
		Understands directionality, order, and position of objects, such as up, down, in front, behind.	O	O	O	O	O	O

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Science Knowledge & Skills	**Patterns**	Compares objects using attributes of length, weight and size (bigger, longer, taller, heavier).	●	●	●	●	●	●
		Orders objects by size or length.	●	●	●	●	●	●
		Uses nonstandard and standard techniques and tools to measure and compare.	○	○	○			○
	Scientific Skills & Method	Uses senses and tools, including technology, to gather information, investigate materials, and observe processes and relationships.	●	●	●	●	●	●
		Observes and discusses common properties, differences, and comparisons among objects.	●	●	●	●	●	●
		Participates in simple investigations to form hypotheses, gather observations, draw conclusions, and form generalizations.	●	●	●	●	●	●
		Collects, describes, and records information through discussions, drawings, maps, and charts.	●	●	●	●	●	●
		Describes and discusses predictions, explanations, and generalizations based on past experience.	●	●	●	●	●	●
	Conceptual Knowledge of the Natural & Physical World	Observes, describes, and discusses living things and natural processes.	●	●	●	●	●	●
		Observes, describes, and discusses properties of materials and transformation of substances.						

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Logic & Reasoning	Reasoning & Problem Solving	Seeks multiple solutions to a question, task, or problem.	●	●	●	●	●	●
		Recognizes cause and effect relationships.	●	●	●	●	●	●
		Classifies, compares, and contrasts objects, events and experiences.	●	●	●	●	●	●
		Uses past knowledge to build new knowledge.	●	●	●	●	●	●

The activities and teaching approach in the *PEEP Science Curriculum* support the following Approaches to Learning indicators from the Head Start Child Outcomes Framework:

Initiative & Curiosity

- Demonstrates flexibility, imagination, and inventiveness in approaching tasks and activities.
- Demonstrates eagerness to learn about and discuss a range of topics, ideas, and tasks.
- Asks questions and seeks new information.

Persistence & Attentiveness

- Maintains interest in a project or activity until completed.
- Sets goals and develops and follows through on plans.
- Resists distractions, maintains attention, and continues the task at hand through frustration or challenges.

Cooperation

- Plans, initiates, and completes learning activities with peers.
- Joins in cooperative play with others and invites others to play.
- Models or teaches peers.
- Helps, shares, and cooperates in a group.