

Kindergarten Science Grade Level Content Expectations (GLCEs) v.12.07

Content Statement / Content Expectation	Words to Know	Know –Nouns- Content	Be Able to Do –Verbs- Skills and Processes
SCIENCE PROCESSES: Inquiry Process <i>S.IP.E.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.</i>			
S.IP.00.11 Make purposeful observation of the natural world using the appropriate senses.	Sight Touch Smell Hear Taste	Natural world Senses	Make an observation *oral *graph *manipulate/sort *written
S.IP.00.12 Generate questions based on observations.		Questions Observation	Explain how they use their senses at the apple orchard.
S.IP.00.13 Plan and conduct simple investigations.		Investigation	Matching objects through sensory input.
S.IP.00.14 Manipulate simple tools (for example: hand lens, pencils, balances, non-standard objects for measurement) that aid observation and data collection.	Magnifying Glass Ruler Balance Thermometer	Simple tools	Collect data using simple tools to explore characteristics of the natural world.
S.IP.00.15 Make accurate measurements with appropriate (non-standard) units for the measurement tool.	Accurate Non-standard units	Non-standard measurement tools	Use non-standard tools to measure classroom environment.
S.IP.00.16 Construct simple charts from data and observations.	Bar graph Venn-diagram T-graph Tally marks Pie graph	Charts Data	Use data to display simple charts.
SCIENCE PROCESSES: Inquiry Analysis and Communication <i>S.IA.E.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.</i>			
S.IA.00.12 Share ideas about science through purposeful conversation.		Ideas Science	Discuss own observations with peers.
S.IA.00.13 Communicate and present findings of observations.		Findings	Students will share their findings through a visual aide.
S.IA.00.14 Develop strategies for information gathering (ask an expert, use a book, make observations, conduct simple investigations, and watch a video).		Strategies Information	Use a variety of resources to gather information.
SCIENCE PROCESSES: Reflection and Social Implications <i>S.RS.E.1 Reflecting knowledge is the application of scientific knowledge to new and different situations. Reflecting knowledge requires careful analysis of evidence that guides decision making and the application of science throughout history and within society.</i>			
S.RS.00.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.	Cause & Effect	Scientific Concepts	Communicate through class discussion with teacher prompts.

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PHYSICAL SCIENCE: Force and Motion			
<i>P.FM.E.1 Position- A position of an object can be described by locating the object relative to other objects or a background. The description of the motion of an object from one observer's view may be different from that reported from a different observer's view.</i>			
P.FM.00.11 Compare the position of an object (for example: above, below, in front of, behind, on) in relation to other objects around it.	Above Below In front of Behind On Next to Between Over Under	Position objects	Use directional activities to demonstrate positional concepts.
P.FM.00.12 Describe the motion of an object (for example: away from or closer to) from different observers' views.	Positional words Motion	Distance	Play games that experiment with motion.
<i>P.FM.E.2 Gravity- Earth pulls down on all objects with a force called gravity. With very few exceptions, objects fall to the ground no matter where the object is on the Earth.</i>			
P.FM.00.21 Observe how objects fall toward the earth.	Gravity Toward Earth	Earth	Demonstrate how objects fall towards earth.
<i>P.FM.E.3 Force- A force is either a push or a pull. The motion of objects can be changed by forces. The size of the change is related to the size of the force. The change is also related to the weight (mass) of the object on which the force is being exerted. When an object does not move in response to a force, it is because another force is being applied by the environment.</i>			
P.FM.00.31 Demonstrate pushes and pulls.	Push Pull Force	Force	Manipulate everyday objects using force.
P.FM.00.32 Observe that objects initially at rest will move in the direction of the push or pull.	Rest Direction	Direction	Use force to make at rest objects move.
P.FM.00.33 Observe how pushes and pulls can change the speed or direction of moving objects.	Change Speed	Speed Direction	Demonstrate how force can change the speed and direction of a moving object.
P.FM.00.34 Observe how shape (for example: cone, cylinder, sphere), size, and weight of an object can affect motion.	Weight 3Dimensional Shapes Size	Shape	Observe and compare how objects move based on their attributes.
LIFE SCIENCE: Organization of Living Things			
<i>L.OL.E.1 Life Requirements- Organisms have basic needs. Animals and plants need air, water, and food. Plants also require light. Plants and animals use food as a source of energy and as a source of building material for growth and repair.</i>			
L.OL.00.11 Identify that living things have basic needs.	Basic Needs: air, water, food, light	Living Basic Needs	Use multiple resources to gather information on living things.
L.OL.00.12 Identify and compare living		Non-living	Sort pictures of living

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and nonliving things.			and non-living.
EARTH SCIENCE: Solid Earth <i>E.SE.E.1 Earth Materials- Earth materials that occur in nature include rocks, minerals, soils, water, and the gases of the atmosphere. Some Earth materials have properties which sustain plant and animal life.</i>			
E.SE.00.11 Identify Earth materials (air, water, soil) that are used to grow plants.	Air Water Soil Light	Earth Materials Plants	Show how the materials affect the growth of a plant.