

**Second Grade Science Alignment Record Science GLCE v.12.07**

GLCE Code	Expectation	District Resources/Alignment	Vocabulary	Additional Resources
<b>Science Processes</b>	<b>Inquiry Process</b>			
<b>Statement [P.E.1]</b>	Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.			
P.02.11	Make purposeful observation of the natural world using the appropriate senses.	<b>Pebbles, Sand, and Silt</b> Investigation 2, Parts 1-4, pp. 8-20		
P.02.12	Generate questions based on observations.	<b>Pebbles, Sand, and Silt</b> Investigation 4, Parts 1-3, pp. 8-25	observation prediction	
P.02.13	Plan and conduct simple investigations.	<b>Pebbles, Sand, and Silt</b> Investigation 2, Parts 1-4, pp. 8-29	chart	
P.02.14	Manipulate simple tools (for example: hand lens, pencils, balances, non-standard objects for measurement) that aid observation and data collection.	<b>Pebbles, Sand, and Silt</b> Investigation 4, Parts 1-3, pp. 6-25	data	
P.02.15	Make accurate measurements with appropriate (non-standard) units for the measurement tool.	<b>Pebbles, Sand, and Silt</b> Investigation 2, Part 3, pp. 20-28 Investigation 3, part 3, pp. 23-30	research	
P.02.16	Construct simple charts from data and observations.	<b>Pebbles, Sand, and Silt</b> Investigation 1, Parts 2, 4, pp. 13-18, 22-25 Investigation 2, Part 2-3, pp. 14-23		
<b>Science Processes</b>	<b>Inquiry Analysis and Communication</b>			
<b>Statement [A.E.1]</b>	Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.			
A.02.12	Share ideas about science through purposeful conversation.	<b>New Plants</b> Investigation 3, Parts 1-3, pp. 8-25		
A.02.13	Communicate and present findings of observations.	<b>New Plants</b> Investigation 2, Parts 1-3, pp. 8-28		
A.02.14	Develop strategies and skills for information gathering and problem solving (books, internet, ask an expert, observation, investigation, technology tools).	<b>New Plants</b> Investigation 4, Parts 1-2, pp. 7-19		Magic School Bus Video/Book – “Goes to Seed”

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<b>Science Processes</b>	<b>Reflection and Social Implications</b>			
<b>Statement RS.E.1</b>	Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision making and the application of science throughout history and within society.			
RS.02.11	Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.	<b>New Plants</b> Investigation 2, Parts 2-3, pp. 15-28		
RS.02.13	Recognize that when a science investigation is done the way it was done before, similar results are expected.	<b>New Plants</b> Investigation 2, Parts 1-2, pp. 8-19		
RS.02.15	Use evidence when communicating scientific ideas.	<b>New Plants</b> Investigation 2, Parts 1-2, pp. 8-19		
RS.02.16	Identify technology used in everyday life.	<b>New Plants</b> Science Stories, pp. 16-19		FOSS Website Computers, E-Campus, Nettrekker
<b>Physical Science</b>	<b>Properties of Matter</b>			
<b>Statement PM.E.1</b>	Physical Properties- All objects and substances have physical properties that can be measured.		rock characteristics	“States of Matter” Delta Science Reader (DSR)
PM.02.12	Describe objects and substances according to their properties (color, size, shape, texture, hardness, liquid or solid, sinking or floating).	<b>Pebbles, Sand, and Silt</b> Investigation 1, Part 1-4, pp. 8-25 Investigation 2, Part 1-4, pp. 8-29 Investigation 2, Science Extension, p. 30 Investigation 3, Science Extension, p. 31	sand, solid rock, weight, boulder, silt, earth materials, pebble, large, rough, smooth, sharp, flat, round	AIMS – “Rock Groups” pp. 32-37 “Sink or Float” (DSR)
PM.02.13	Measure the length of objects using rulers (centimeters) and meter sticks (meters).	<b>New Plants</b> Investigation 1, Part 3, pp. 23-30	dull, balance	
PM.02.14	Measure the volume of liquids using common measuring tools (measuring cups, measuring spoons).	<b>Plants and Animals</b> Investigation 1, Part 2, pp. 58-62		“Using Your Senses” (DSR)
PM.02.15	Compare the weight of objects using balances.			“States of Matter” (DSR)

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<b>Material Composition</b> PM.E.4	Material Composition- Some objects are composed of a single substance, while other objects are composed of more than one substance.		mixture	
PM.02.41	Classify objects as single substances (ice, silver, sugar, salt) or mixtures (salt and pepper, mixed dry beans).	<b>Pebbles, Sand, and Silt</b> Investigation 4, Part 1, pp. 8-14		“States of Matter” (DSR)
<b>Life Science</b>	<b>Organization of Living Things</b>			
<b>Life Requirements</b> 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.		Seed, plant, flower, fruit, stem, life cycle, energy, photosynthesis, leaf, root, sunlight	
OL.02.14	Identify the needs of plants.	<b>Plants and Animals</b> Investigation 1, Part 2, pp. 13-22 Investigation 2, Part 1, pp. 8-14 Investigation 3, Part 1-2, pp. 8-18 Science Stories, pp. 3-7		AIMS – “Primarily Plants” “Classroom Plants” (DSR)
<b>Life Cycles</b> OL.E.2	Life Cycles- Plants and animals have life cycles. Both plants and animals begin life and develop into adults, reproduce, and eventually die. The details of this life cycle are different for different organisms.			
OL.02.22	Describe the life cycle of familiar flowering plants including the following stages: seed, plant, flower, and fruit.	<b>New Plants</b> Investigation 1, Part 2-3, pp. 13-30 Science Stories, pp. 2-19		
<b>Life Science</b>	<b>Heredity</b>			
<b>Observable Characteristics</b> HE.E.1	Observable Characteristics- Plants and animals share many, but not all, characteristics of their parents.			“Plants and Animal Populations” (DSR)
HE.02.13	Identify characteristics of plants (for example: leaf shape, flower type, color, size) that are passed on	<b>New Plants</b> Investigation 1, Parts 2-3, pp. 13-30	soil	

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	from parents to young.	Science Stories, pp. 2-19		
<b>Earth Science</b>	<b>Solid Earth</b>			
<b>Statement SE.E.2</b>	Surface Changes- The surface of Earth changes. Some changes are due to slow processes, such as erosion and weathering, and some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes.	<b>AIMS</b> – “Quaking Earth” pp. 80-86 “Volcanoes” pp. 87-90 Game Cards “Features of the Earth” pp. 19-22	volcano, landslide, earthquake, mountains, plain, plateaus, valley, hills	
SE.02.21	Describe the major landforms of the surface of the Earth (mountains, plains, plateaus, valleys, hills).			
<b>Earth Science</b>	<b>Fluid Earth</b>			
<b>Statement FE.E.1</b>	Water- Water is a natural resource and is found under the ground, on the surface of the earth, and in the sky. It exists in three states (liquid, solid, gas) and can go back and forth from one form to another.	<b>AIMS</b> – “Where is Water?” pp. 92-94 “States of Matter” (DSR) “Sink or Float” (DSR)	solid, liquid, gas	
FE.02.11	Identify water sources (wells, springs, lakes, rivers, oceans).			
FE.02.12	Identify household uses of water (drinking, cleaning, food preparation).	<b>AIMS</b> – “Water to Ice to Water” pp. 106-109	water cycle, precipitation, accumulation	
FE.02.13	Describe the properties (visible, flowing, melting, dew) of water as a liquid (lakes, rivers, streams, oceans).		flow, melt, dew	
FE.02.14	Describe the properties (hard, visible, freezing, ice) of water as a solid (ice, snow, iceberg, sleet, hail).			
<b>Statement FE.E.2</b>	Water Movement- Water moves in predictable patterns.			
FE.02.21	Describe how rain collects on the surface of the Earth and flows downhill into bodies of water (streams, rivers, lakes, oceans) or into the ground.	<b>AIMS</b> – “Moving Water” pp. 25-29	lakes, rivers, streams	

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FE.02.22	Describe the major bodies of water on the Earth's surface (lakes, ponds, oceans, rivers, streams).			