

Rose Hamilton Elementary Curriculum Mapping

Science – Grade 1

1st Nine Weeks

Units Lessons	Indiana Standards	Key Questions	Resources	Vocabulary	Assessments
Introduction Be A Scientist	1.1.1	What do scientists do? How do scientists work? How do scientists learn?	Textbook p. 2-16 Discussion Chart tablets for: KWL, Plan, Results and Conclusions Insect pictures	Observation Senses Compare Classify Infer Predict Investigate Conclusion	Student contributions to chart. Sort insect pictures from smallest to largest Participation in a shared writing using the scientific method to create a plan and results chart.
1.1.1 Use all senses as appropriate to identify the component parts of objects and the materials from which they are made.					
<i>Unit 1</i> <i>Properties of</i> <i>Matter</i> Lesson 1 Describing Matter	1.1.1 1.1.2 1.1.3	What are things made of?	Textbook p. 20-31 Discussion Explore: Toy car to take apart projected by document camera Alt. Explore: two same color classroom items Foldables -copy p. 230 Quick Lab: p. 211 classroom objects	Property Matter	Class participation Evaluation p.28, 29
1.1.1 Use all senses as appropriate to identify the component parts of objects and the materials from which they are made. 1.1.2 Characterize materials as solid or liquid, investigate their properties, record observations and explain the choices to others based on evidence (i.e., physical properties). 1.1.3 Experiment with simple methods for separating solids and liquids based on their physical properties.					

Unit 1 Lesson 2 Forms of Matter	1.1.2	What is a solid? What is a liquid? What is a gas?	Textbook p. 32-45 Discussion Explore: Balloons, blocks, cups of water, connecting cubes, string Alt. Explore: pictures of pairs of objects that can be compared Foldables-copies p. 226 Quick Lab p. 212: plastic cups, marbles, water	Solid Liquid Gas	Class participation Evaluation p. 42, 43
1.1.2 Characterize materials as solid or liquid, investigate their properties, record observations and explain the choices to others based on evidence (i.e., physical properties).					
Unit 1 Lesson 3 Separating Mixtures	1.1.3	What is a mixture? How can mixtures be separated?	Textbook p. 46-57 Discussion Explore: Sand, birdseed, sieves, cups, clear bin Alt. Explore: small assorted objects same color or material, bowls. Foldable-copies p. 224 Quick Lab p. 213: pennies, corks, classroom objects, pans of water	Mixture Sieve Dissolve Evaporate	Class participation Evaluation p.54, 55 Unit 1 Review Matter review p. 58-64
1.1.3 Experiment with simple methods for separating solids and liquids based on their physical properties.					

Additional Support/Resources:

Science In Motion: www.macmillanmh.com

<http://nsdl.org/refreshers/science>

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2nd Nine Weeks

Units Lessons	Indiana Standards	Key Questions	Resources	Vocabulary	Assessments
Unit 2 <i>Soil</i> Lesson 1 Types of Soil	1.2.1 1.2.3	What is found in soil?	Textbook p. 68-79 Discussion Explore: Sand, clay, loam, hand lenses, paper plates Alt. Explore: pictures of different kinds of soil to compare Foldable-copies p. 224 Quick Lab p. 214: magazines, crayons	Soil Sand Silt Clay	Class participation Evaluation p. 76, 77
1.2.1 Observe and compare properties of sand, clay, silt and organic matter. Look for evidence of sand, clay, silt and organic matter as components of soil samples. 1.2.3 Observe a variety of soil samples and describe in words and pictures the soil properties in terms of color, particle size and shape, texture, and recognizable living and nonliving items.					
Unit 2 Lesson 2 How Soil Forms	1.2.2 1.2.4	What are the components of soil?	Textbook p. 80-91 Discussion Explore: soil, plates, sieve, hand lens, tweezers Alt. Explore: two kinds of soil to compare Foldable copies p. 224 Quick Lab p. 215: plastic containers, potting soil, lunch scraps	Decompose Nutrients	Class participation Evaluation p. 88, 89 Unit 2 Review Soil review p. 92-97
1.2.2 Choose, test and use tools to separate soil samples into component parts. 1.2.4 Observe over time the effect of organisms like earthworms in the formation of soil from dead plants. Discuss the importance of earthworms in soil.					

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3rd Nine Weeks

Units Lessons	Indiana Standards	Key Questions	Resources	Vocabulary	Assessments
Unit 3 <u>Living Things</u> <u>And Their</u> <u>Environment</u> Lesson 1 What Plants Need to Live	1.3.3	What do plants need to live?	Textbook p. 102-113 Discussion Explore: plants, hand lenses Alt. Explore: edible plants Foldable copies p. 225 Quick Lab p. 216: celery stalks, plastic cups, water, food coloring	Environment Leaves Stem Roots	Class participation Evaluation p. 112-113
1.3.3 Observe and explain that plants and animals have basic needs for growth and survival: plants need to take in water and need light, and animals need to take in water and food and have a way to dispose of waste.					
Unit 3 Lesson 2 What Animals Need to Live	1.3.3	What are animals' basic needs?	Textbook p. 114-125 Discussion Explore: terrarium. water, fish food, crickets, hand lenses Alt. Explore: photo cards 21-30 Foldable copies p. 224 Quick Lab p.217: magazines, scissors, paper, glue	Shelter Gills Habitat	Class participation Evaluation p. 122,123
1.3.3 Observe and explain that plants and animals have basic needs for growth and survival: plants need to take in water and need light, and animals need to take in water and food and have a way to dispose of waste.					

Unit 3 Lesson 3 Land Habitats	1.3.1 1.3.4 1.3.5	Where do plants and animals live?	Textbook p. 126-139 Discussion Explore: magazine pictures of plants, animals and animals, paper, crayons, scissors, glue, world map in TE Alt. Explore: drawing paper Foldable copies p. 224 Quick Lab p.218: leaves, colored paper, scissors, glue, crayons	Habitat Adaptation	Class participation Evaluation p. 136,137
<p>1.3.1 Classify living organisms according to variations in specific physical features (e.g., body coverings, appendages) and describe how those features may provide an advantage for survival in different environments.</p> <p>1.3.4 Describe how animals¿ habitats, including plants, meet their needs for food, water, shelter and an environment in which they can live.</p> <p>1.3.5 Observe and describe ways in which animals and plants depend on one another for survival.</p>					
Unit 3 Lesson 4 Water Habitats	1.3.1 1.3.4 1.3.5	What features help plants and animals live in a water habitat?	Textbook p. 140-151 Discussion Explore: aquarium, pebbles, plant, water, goldfish, hand lenses, fish food Alt. Explore: pictures of water and land animals Foldable copies p. 228 Quick Lab p. 219: two jars, salt, measuring spoons and cups, brine shrimp eggs, hand lenses	fresh water salt water	Class participation Evaluation p. 148,149 Unit 3 Review Living Things and Their Habitats review p. 152-158
<p>1.3.1 Classify living organisms according to variations in specific physical features (e.g., body coverings, appendages) and describe how those features may provide an advantage for survival in different environments.</p> <p>1.3.4 Describe how animals¿ habitats, including plants, meet their needs for food, water, shelter and an environment in which they can live.</p> <p>1.3.5 Observe and describe ways in which animals and plants depend on one another for survival.</p>					

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4th Nine Weeks

Units Lessons	Indiana Standards	Key Questions	Resources	Vocabulary	Assessments
Unit 4 <u>Using Natural and Human-Made Materials</u> Lesson 1 Natural and Human-made Materials	1.4.1	What are properties of natural and human-made materials?	Textbook p. 162-173 Discussion Explore: sticky notes, pencils Alt. Explore: pairs of objects-natural and human-made to compare Foldable copies p. 227 Quick Lab p. 220: cotton plant, hand lenses	Natural Resources Human-made materials	Class participation Evaluation p. 170,171
1.4.1 Use all senses as appropriate to sort objects as being composed of materials that are naturally occurring, human made or a combination of the two.					
Unit 4 Lesson 2 Building Shelters	1.4.2	What are kinds of animal shelters?	Textbook p. 174-187 Discussion Explore: soil, plants, rocks, plastic bottles, water, pill bugs, plastic wrap, rubber bands Alt. Explore: pictures of natural and human-made animal shelters to classify Foldable copies p. 228 Quick Lab p. 221: aluminum pan, mud, sticks, leaves, water, photos of beaver dams	Tool Lodge	Class participation Evaluation p. 188,189 Unit 4 Review Natural and Human-made Materials review p. 188-194
1.4.2 Choose two animals that build shelters within their habitats. Compare the shelters in terms of the materials and tools they use and the type and purpose of shelter they provide.					

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Order Form MH12SACL IN Class Explore Kit Grade 1 Organized by Unit/Lesson/Activity

Item Description	Lesson	Activity	TE page	Item #for reorder	Unit price
Unit 1					
Toy Truck	1	Explore	22		
Marbles	2	Quick lab	212		
Strainer	3	Explore	48		
Birdseed	3	Explore	48		
Unit 2					
Hand lenses	1	Explore	70		
GEMS Silt	1	Explore	70	EM 2445600	\$2.20
Sand, Fine 1lb.	1	Explore	70	EM 2937700	\$3.15
Soil, Loam 1lb.	1	Explore	70	EM2733800	\$2.60
Soil, Potting	1	Explore	70	EM 2011000	\$3.40
Forceps	2	Explore	82		
Live Coupon, Earthworms	2	Extend	90	EM 2042000	\$20.00
Unit 3					
Live Coupon, Cricket	2	Explore	116	EM 2043300	\$17.00
Tropical Fish Food	2	Explore	116	EM 6023700	\$4.65
BAS Terrarium, Small Cage	2	Explore	116		
Live Coupon, Goldfish	4	Explore	142	EM 2730300	\$17.75
Gravel	4	Explore	142	EM 2938700	\$2.35
Brine Shrimp Eggs	4	Quick Lab	219	EM 2001100	\$5.25
Spoons, Measuring	4	Quick Lab	219		
Unit 4					
Live Coupon, Pill Bugs	2	Explore	176	EM 2041700	\$20.00
Pebbles, Stones	2	Explore	176	EM 2941500	\$3.45
Modeling Clay, Four Colors	2	Extend	186	EM 2002400	\$4.00
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Food Coloring, Blue	Unit 3?	--	--	EM 2191310	\$4.20
BAS Live Coupon, Pond Snails	???	--	--	EM 2043000	\$20.00