

Alignment between HMH Journeys Reading Program and Diocese of Allentown Science Standards for Second Grade

HMH Journeys

Diocesan Science Standards

Anchor	Informational	Lesson	Enduring Knowledge	Diocesan Knowledge Standards	Activity Suggestions	Some Lab Suggestions
Text	Text	#				
<i>Henry & Mudge and, Dogs</i>	<i>Lesson 2: Dig Deeper: Sequencing Events, and Lesson 3: Read & Comprehend</i>	1, 2, 3	Enduring Knowledge 1: Use the Scientific Method, scientific tools, and safe lab procedures to solve problems.	Standards: Make purposeful observations using the appropriate senses, Generate questions based on observations, Identify strategies for gathering information (expert in field, books, observations, investigations, videos), Construct simple charts from data and observations.	B. Scientists use Scientific Process Skills to solve problems: Observing and Classifying	Observe objects using the appropriate senses, Classify items, Make a chart with data (DOGS)
<i>Diary of a Spider</i>	<i>Read & Comprehend,</i>	4	Enduring Knowledge 1: Use the Scientific Method, scientific tools, and safe lab procedures to solve problems.	Share ideas through purposeful conversation, Communicate and present findings of observations (illustrations, models, writing).	Construct simple charts from data and observations. Share ideas through purposeful conversation. Communicate and present findings of observations (illustrations, models, writing). Manipulate simple tools that aid in observation and data collection. Make accurate measurements with appropriate units for the measurement tools.	Observe objects using the appropriate senses, Classify items, Make a chart with data (JOURNAL)
	Informational text: <i>See Westburg by Bus!</i>	5	Enduring Knowledge 5: Earth is made up different land and water forms.	Standards: Recognize that land and water are found on earth's surface, Describe various land forms and bodies of water, A. Earth is made up of different materials: 1. Land (Solid Earth) Rocks Soil 2. Water (Fluid Earth) Fresh water (3%) Salt water (97%) B. Earth is made up of different forms: 1. Landforms Mountain Hill Valley Plain Island Prairie Desert	VOCABULARY: Landform: a natural feature of a land surface, Mountain: a very high structure of land, Hill: a small structure of land, Valley: an area of low ground between two hills or mountains, Plain: a large area of level open land	

<i>Animals Building Homes</i>	<i>Informational Text: Whose Home Is This?</i>	6	Enduring Knowledge 5: Earth is made up different land and water forms.	Standards: Recognize that land and water are found on earth's surface, Describe various land forms and bodies of water, A. Earth is made up of different materials: 1. Land (Solid Earth) Rocks Soil 2. Water (Fluid Earth) Fresh water (3%) Salt water (97%) B. Earth is made up of different forms: 1. Landforms Mountain Hill Valley Plain Island Prairie Desert	VOCABULARY: Island: any land area surrounded entirely by water, Prairie: a large area of flat or rolling grassland with few or no trees, Desert: a dry area where few plants grow due to little moisture.	
<i>Super Storms</i>	<i>Weather Poems & Final Copy: Thunderstorms</i>	8	Enduring Knowledge 2: Seasonal weather changes occur each year.	Standards: Identify characteristics of the seasons of the year. Identify characteristics of weather. Describe the weather changes from day to day and over seasons. Explain how precipitation, air temperature, wind and cloud cover make up weather in a particular place and time. Distinguish among the various forms of precipitation (rain, snow, hail, freezing rain), making connections to the weather in a particular time and place. Recognize and demonstrate the tools to measure features.	ACTIVITY: Identify and chart characteristics of the seasons. Make a favorite season circle graph with class data. KWL chart of weather characteristics. Keep a class weather chart identifying daily temperature, wind strength, and precipitation. Design and construct simple instruments that could be used to measure weather.	Experiment with the amount of rain that falls from a rain maker (watering can) into a rain gauge (beaker, etc.). Measure various forms of precipitation. Record outdoor temperatures in a sunny location and shady location, discussing the difference in temperatures. Create a weather station for the school, using classical weather tools/instruments that clearly show the physical principle that makes them work.
<i>Super Storms</i>	<i>Weather Poems & Final Copy: Thunderstorms</i>	8	Enduring Knowledge 3: Major cloud types can be associated with particular weather conditions.	Standards: Recognize and describe the basic types of clouds, including cumulus, cirrus, stratus and cumulonimbus. Explain how cloud types are associated with particular weather conditions. A. Clouds are classified according to basic types: 1. Cumulus Made of tiny water droplets Tall Puffy Bright white 2. Cirrus Water collects to form curves Water droplets turn to tiny ice drops No clear shape Looks like curls of hair or feathers. High in the sky 3. Stratus Hold little water moisture Lumpy, layered clouds 4. Cumulonimbus Can't hold all water drops Tall Puffy Gray B. Clouds types are associated with particular weather conditions. 1. Cumulus Fair weather clouds 2. Cirrus Rain clouds 3. Stratus Weak rain clouds 4. Cumulonimbus: Thunderstorm clouds	ACTIVITY: Observe characteristics of clouds types. Make T chart of characteristics and drawing. Match cloud types with weather conditions. Make models of clouds using cotton balls.	LAB: Cloud in a Bottle. Make a Cloud Wheel/Cloud Finder

Super Storms	<i>Weather Poems & Final Copy: Thunderstorms</i>	8	Enduring Knowledge 4: When severe weather is predicted, precautions can be taken.	<p>Standards: Recognize that weather can be predicted and forecasted based on trends. Give examples of severe weather. Describe how to keep safe during severe weather.</p> <p>A. Weather can be predicted based on weather trends, keeping track of weather over time and seasons.</p> <p>1. Prediction 2. Forecast</p> <p>B. Characteristics of severe weather:</p> <ul style="list-style-type: none"> 1. Thunder 2. Lightning 3. Tornadoes 4. Strong winds 5. Heavy precipitation 6. Flood 7. Drought <p>C. Precautions should be taken for human safety during severe weather conditions.</p>	<p>Daily/weekly/monthly journal of weather, Class graph of data for temperature, Record data using pictographs, Present a weather forecast and weather report, Watch the weather forecast for the local area.</p>	<p>LAB: Experiment with the variations in temperature using various locations and different times of day.</p> <p>VOCABULARY:</p> <p>Prediction: a guess about what might happen based on what you already know.</p> <p>Forecast: the process of predicting the weather that is to come in the future based on weather maps and patterns,</p> <p>Meteorologist: a scientist who reports and forecasts the weather.</p>
<i>How Chipmunk Got His Stripes</i>	Do NOT do HMH p.330 Activity.	9	Enduring Knowledge 7: The sun, planets, and moon are a part of the solar system.	<p>Standards: Recognize that the earth is part of a system called the 'Solar System' that includes the sun (a star), planets and Earth's moon.</p> <p>A. Sun</p> <ul style="list-style-type: none"> 1. The sun is a star (made of gases). 2. Central object in our solar system 3. Largest object in our solar system. More than 1 million Earths would fit inside the sun 4. It produces heat and light. 5. It can create shadows. 6. It can only be seen in the daytime. <p>Be sure to reiterate, "The Sun does NOT come up" as mentioned in story telling.</p>	<p>ACTIVITY: Venn Diagram: compare and contrast characteristics of the sun, Earth and moon by observing photos. Measure shadows at different times of the day. Experiment with reflection using flashlights and mirrors. Make sundial.</p>	<p>LAB: Examine a model of the sun, planets and Earth's moon. Label picture of solar system including sun, planets and Earth's moon.</p> <p>Experiment how moon reflects the sun with an orange covered in foil and a flashlight.</p> <p>Experiment how craters are created using flour and marbles.</p>

<i>Jellies: The Life of Jellyfish</i>	<i>Informational text: Splash Photography</i>	10	Enduring Knowledge 5: Earth is made up different land and water forms.	Standards: Recognize that land and water are found on earth's surface. Describe various land forms and bodies of water. A. Earth is made up of different materials: 1. Land (Solid Earth) Rocks Soil 2. Water (Fluid Earth) Fresh water (3%) Salt water (97%) B. Earth is made up of different forms: 2. Bodies of water: Ocean. Lake. Pond. River. Stream. Glacier.	VOCABULARY: Ocean: a huge body of salt water. Lake: a large body of fresh water surrounded by land. Pond: a small body of fresh water surrounded by land. River: large natural body of fresh water that flows into a lake or ocean. Stream: small natural body of fresh water that flows. Glacier: a large flowing river of ice that moves very slowly. Geologist: a scientist who studies the earth. Hydrologist: a scientist who studies bodies water.	
			Enduring Knowledge 6: The water cycle is a changing of water through phases.	Standards: Describe how water on earth cycles in different forms and in different locations. Give examples of how the cycling water has an effect on weather. A. Water can change states at various stages of the water cycle. 1. Evaporation: Liquid changes to a gas. Liquid water becomes water vapor. Occurs because the temperature increases 2. Condensation Gas changes to a liquid. Water vapor becomes liquid water. Occurs because temperature decreases B. Water moves through the environment in the water cycle 1. Evaporation Sun heats up water (liquid) in bodies of water and changes it.	ACTIVITY: KWL chart of water states. KWL chart of water cycle. Draw the water cycle	LAB: Conduct simple demonstrations showing evaporation. Water left in sunlight evaporates. Water heated on stove fills a balloon. Conduct simple demonstrations showing condensation. Condensation forms on the outside of a cold can of soda. Condensation occurs when the water vapor in the balloon cools and changes to a liquid.
<i>Ah, Music!</i>		12	Enduring Knowledge 12: Energy comes in different forms.	Standards: Identify the basic forms of energy A. There are basic forms of energy. Light, Sound, Thermal, Electrical, Mechanical.	ACTIVITY: KWL chart of energy and forms, Energy, scavenger hunt .	Make your own instrument from recyclable items at home.
<i>Helen Keller</i>	<i>Talking Tools</i>	14	Enduring Knowledge 11: Energy can lead to changes.	Standards: Recognize that energy is the ability to cause motion or create change. A. Energy is the ability to cause motion or create change. 1. Energy is involved in all physical processes 2. Energy is useful 3. Simple stationary objects do not produce energy (cardboard box).	ACTIVITY: KWL chart of energy and forms. VOCABULARY: Energy: the ability to cause motion or create change. Motion: the act of moving	

<i>Officer Buckle & Gloria</i>		15	Enduring Knowledge 1: Use the Scientific Method, scientific tools, and safe lab procedures to solve problems.	C. Lab Safety is a set of rules that scientists practice to safely learn and study the world around them. These rules include: 1. I will follow directions 2. I will listen carefully 3. I will keep myself and others safe 4. I will clean my area after lab.	ACTIVITY: Create a science handbook including Scientific Method & Scientific Process Skills, Observe objects using the appropriate senses, Classify items, Make a chart with data, Have students and parents sign a Lab Safety Contract. Include lab safety rules in science handbook, Include scientific instruments and tools, and their uses, in science handbook	LAB: The lab should be a step by step practice using the Scientific Method of something they know (brushing teeth). All labs should utilize the Scientific Method and Scientific Process Skills, Review safety rules at the beginning of every lab, Review instrument and tool name and use during every lab.
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Questions? Contact Danielle Sixsmith

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