

Grade 7 Science

Diary map is based on the 2015-2016 school year. Information may change year to year. Months are guidelines and items may be done at different times of the year.

Month	Essential Questions	Content	Skills	Assessment	Resources	Technology
Aug- Sept.	<p>Scientific Inquiry How can scientific inquiry be used to solve a question?</p> <p>Lab Safety How can I be safe in the lab classroom?</p>	<p>Scientific Inquiry -Question -Hypothesis -Design -Investigate -Analyze -Interpret -Conclusion -Independent Variable -Dependent Variable -Constant</p> <p>Lab Safety -First aid kit -Eye wash and chemical shower -Lab safety rules</p>	<p>Scientific Inquiry -Understand steps in inquiry and how they are used to answer a question</p> <p>Lab Safety -Model appropriate lab safety rules and procedures</p>	<p>Scientific Inquiry -Design experiment -Paper towel lab -Test (teacher created)</p> <p>Lab Safety -Behavior within a lab -Test (teacher created)</p>	<p>Scientific Inquiry -Teachers Pay Teachers: Paper towel lab -Materials (teacher created)</p> <p>Lab Safety -Teachers Pay Teachers: Lab safety rules PowerPoint</p>	<p>Scientific Inquiry -Computer -Elmo -Projector -SMART Board -PowerPoint</p> <p>Lab Safety -Computer -Elmo -Projector -SMART Board -PowerPoint</p>
Oct. – Nov.	<p>Lithosphere How do Earth's internal processes affect what occurs on the crust?</p>	<p>Lithosphere -Lithosphere -Plate Tectonics -Seafloor Spreading -Mantle -Crust -Inner and Outer Core -Convergent, Divergent, Transform Boundary -Subduction -Deep Ocean Trench -Igneous -Metamorphic -Sedimentary -Compaction and Cementation -Erosion and Weathering</p>	<p>Lithosphere -Model and understand how Earth's lithosphere has changed over millions of years and what will occur in the future -Model how igneous, metamorphic, and sedimentary rocks are created and how they interact together</p>	<p>Lithosphere -iMovie presentation -Business letter from Alfred Wegener -Foldable -Delta Science Module: Earth Processes (2011) -Stations (teacher created) -Test (teacher created)</p>	<p>Lithosphere -Various pictures -Prentice Hall <i>Earth Science</i> (2002) -Glencoe Science <i>Earth Science</i> (2002) -Delta Science Module: Earth Processes (2011)</p>	<p>Lithosphere -Computer -Elmo -Projector -SMART Board -PowerPoint -iPad -Kahoot -iMovie -Google Classroom -YouTube</p>

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Dec. – Jan.	<p>Natural Hazards: Earthquake How does an earthquake occur?</p> <p>Can we prevent people from living in earthquake zones?</p>	<p>Natural Hazards: Earthquake -Fault -Stress -Normal Fault -Strike-Slip Fault -Reverse Fault -New Madrid Fault -P wave -S Wave -Seismometer</p>	<p>Natural Hazards: Earthquake -Determine what types of structures best withstand an earthquake -Debate factors of why we should or should not limit people and where they live along fault lines</p>	<p>Natural Hazards: Earthquake -Marshmallow Building Lab -Clay Modeling Lab -P and S waves Lab -Class debate</p>	<p>Natural Hazards: Earthquake -Prentice Hall <i>Earth Science</i> (2002) -Teachers Pay Teachers -Materials (teacher created)</p>	<p>Natural Hazards: Earthquake -Computer -Elmo -Projector -SMART Board -PowerPoint -iPad -YouTube</p>
Feb.	<p>Hydrosphere What are the causes of water pollution in the Midwest and in other countries?</p> <p>How does water cycle through the Earth in an un-ending cycle?</p>	<p>Hydrosphere -Evaporation -Condensation -Precipitation -Runoff</p>	<p>Hydrosphere -Research the causes of water pollution in various areas of the Midwest and in other countries -Explore how water rises and returns back to Earth</p>	<p>Hydrosphere -Test (teacher created) -Water Cycle lab -Well lab -Water Table lab</p>	<p>Hydrosphere -Materials (teacher created)</p>	<p>Hydrosphere -Computer -Elmo -Projector -SMART Board -PowerPoint -iPad -YouTube</p>
March	<p>Atmosphere What forces create tornadoes?</p> <p>How do air masses change weather conditions?</p>	<p>Atmosphere -Front -Current -Tornado -Air Pressure -Air Masses -Air Particles -Layers of the Atmosphere</p>	<p>Atmosphere -Explain the factors that create tornadoes -Understand that the Earth's atmosphere has many different layers</p>	<p>Atmosphere -Labs (teacher created) -Test (teacher created)</p>	<p>Atmosphere -Materials (teacher created)</p>	<p>Atmosphere -Computer -Elmo -Projector -SMART Board -PowerPoint -iPad -YouTube</p>

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April	<p>Natural Resources What is the reasoning behind the uneven distribution of Earth's energy resources due to past geologic processes?</p> <p>How can individuals minimize the impact on the environment by using less fossil fuels?</p>	<p>Natural Resources -Natural Resource -Renewable Resource -Nonrenewable Resource -Coal -Oil -Natural Gas -Fracking</p>	<p>Natural Resources -Hypothesize the reasoning behind the uneven distribution of fossil fuels based on understanding from throughout the year -Research in order to understand about renewable energy that is available to humans, including the history, pros, cons and how it works</p>	<p>Natural Resources -Worksheets (Teacher created) -Test (Teacher created) -Labs (Teacher created) -Project (Teacher created)</p>	<p>Natural Resources -Materials (teacher created)</p>	<p>Natural Resources -Computer -Elmo -Projector -SMART Board -PowerPoint -iPad -YouTube -<i>Pump</i> (documentary)</p>
May	<p>Human Impact How do humans impact our planet in three areas of pollution?</p>	<p>Human Impact -Air pollution -Water Pollution -Land Pollution</p>	<p>Human Impact -Explain and determine factors in which humans can limit the types of pollution they create</p>	<p>Human Impact -Labs (teacher created)</p>	<p>Human Impact -Materials (teacher created)</p>	<p>Human Impact -Computer -Elmo -Projector -SMART Board -PowerPoint -iPad -YouTube</p>