

## Grade 6 Science

Diary map is based on the 2014-2015 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><b>Scientific Method</b> How is an experiment developed using the Scientific Method?</p> <p><b>Forces and Motion</b> How are forces and motion related?</p>	<p><b>Scientific Method</b></p> <ul style="list-style-type: none"> <li>-Question</li> <li>-Research</li> <li>-Hypothesis</li> <li>-Experiment</li> <li>-Analyze</li> <li>-Conclusion</li> </ul> <p><b>Forces and Motion</b></p> <ul style="list-style-type: none"> <li>-Distance</li> <li>-Position</li> <li>-Motion</li> <li>-Speed</li> <li>-Velocity</li> <li>-Acceleration</li> <li>-Force</li> <li>-Friction</li> <li>-Newton’s first law of motion</li> </ul>	<p><b>Scientific Method</b></p> <ul style="list-style-type: none"> <li>-Understand the steps of the scientific method are used to gather information and report findings</li> </ul> <p><b>Forces and Motion</b></p> <ul style="list-style-type: none"> <li>-Explain that motion can be described by position, direction and speed</li> <li>-Summarize how forces affect motion</li> </ul>	<p><b>Forces and Motion</b></p> <ul style="list-style-type: none"> <li>-Choice menu</li> </ul>	<p><b>Forces and Motion</b></p> <p>Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011)</p> <ul style="list-style-type: none"> <li>-Text</li> <li>-Skill worksheet pages</li> </ul> <p>-Interactive Notebook (teacher created)</p>	<p><b>Forces and Motion</b></p> <ul style="list-style-type: none"> <li>-Laptop</li> <li>-Elmo</li> <li>-Projector</li> <li>-SMART Board</li> <li>-Discovery Education online videos</li> <li>-YouTube videos</li> </ul>
Oct.	<p><b>Changes in Motion</b> What causes motion to change?</p>	<p><b>Changes in Motion</b></p> <ul style="list-style-type: none"> <li>-Newton’s second law of motion</li> <li>-Momentum</li> <li>-Newton’s third law of motion</li> <li>-Newton’s law of universal gravitation</li> <li>-Weightlessness</li> </ul>	<p><b>Changes in Motion</b></p> <ul style="list-style-type: none"> <li>-Describe how force and mass affect an object’s acceleration</li> <li>-Explain that a gravitational force pulls objects toward Earth’s center</li> </ul>	<p><b>Changes in Motion</b></p> <ul style="list-style-type: none"> <li>-Choice menu</li> </ul>	<p><b>Changes in Motion</b></p> <p>Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011)</p> <ul style="list-style-type: none"> <li>-Text</li> <li>-Skill worksheet pages</li> </ul> <p>-Interactive Notebook (teacher created)</p>	<p><b>Changes in Motion</b></p> <ul style="list-style-type: none"> <li>-Laptop</li> <li>-Elmo</li> <li>-Projector</li> <li>-Discovery Education online video</li> <li>-YouTube video</li> </ul>
Nov.	<p><b>Forces and Motion Investigation</b></p>	<p><b>Forces and Motion Investigation</b></p> <ul style="list-style-type: none"> <li>-Air resistance</li> <li>-Wind speed/angle</li> <li>-Flight path/duration</li> <li>-Air power</li> <li>-Control flight</li> </ul>	<p><b>Forces and Motion Investigation</b></p> <ul style="list-style-type: none"> <li>-Investigations in properties of air through hands on experiments</li> </ul>		<p><b>Forces and Motion Investigation</b></p> <p>-Delta Science Module: Flight and Rocketry Kit</p>	<p><b>Forces and Motion Investigation</b></p> <ul style="list-style-type: none"> <li>-Laptop</li> <li>-Elmo</li> <li>-Projector</li> <li>-Discovery Education online video</li> <li>-YouTube video</li> </ul>

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Dec.	<b>Energy</b> How do we use energy in our daily lives?	<b>Energy</b> -Radiation -Convection -Conduction -Potential energy -Kinetic energy -Radiant -Chemical -Electrical -Neutral -Thermal -Sound	<b>Energy</b> -Recognize which sources are renewable and nonrenewable -Understand what will be affected if an energy source runs out -Describe the differences between potential and kinetic energy	<b>Energy</b> Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011) -Skill worksheet pages	<b>Energy</b> Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011) -Text -Skill worksheet pages  -Interactive Notebook (teacher created)	<b>Energy</b> -Laptop -Elmo -Projector -SMART Board -Discovery Education online videos -YouTube videos
Jan.	<b>Energy</b> How is energy involved in the changing of matter?	<b>Energy</b> -Transformations -Coal -Oil -Natural gas -Nuclear power -Biomass -Wind -Hydropower -Geothermal -Solar	<b>Energy</b> -Analyze the pros and cons of each energy source -Understand how energy sources are transformed -Describe how different energy sources effect humans	<b>Energy</b> Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011) -Skill worksheet pages	<b>Energy</b> Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011) -Text -Skill worksheet pages  -Interactive Notebook (teacher created)	<b>Energy</b> -Laptop -Elmo -Projector -SMART Board -Discovery Education online videos -YouTube videos
Feb.	<b>Energy</b> How can I apply my knowledge of energy?	<b>Energy</b> -Presentation -Potential Energy -Kinetic Energy -Radiant Energy -Chemical Energy -Electrical Energy -Neutral Energy -Thermal Energy -Sound Energy	<b>Energy</b> -Answer questions of how, when, where, what, why, who of the 7 types of energy	<b>Energy</b> -Research project	<b>Energy</b> Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011) -Text -Skill worksheet pages  -Interactive Notebook (teacher created)	<b>Energy</b> -Laptop -Elmo -Projector -SMART Board -Discovery Education online videos -YouTube videos

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March	<b>Matter</b> How are the three states of matter unique?	<b>Matter</b> -Classifying Matter -Physical Properties -Elements/Compounds -Solids, Liquids, Gases -Waters/Mixtures	<b>Matter</b> -Recognize the three states of matter: liquid, solid, and gas -Understand how to tell the difference between the three states of matter according to volume, density, shape, and particle arrangement -Understand the correct units of measurement for a liquid, solid, and gas -Recognize if a mixture is homogenous or heterogeneous -Describe the difference between a suspension, emulsion, and colloid -Understand how the periodic table is made up -Recognize the three parts of an atom	<b>Matter</b> -Unit test (textbook created)	<b>Matter</b> Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011) -Text -Skill worksheet pages  -Interactive Notebook (teacher created)	<b>Matter</b> -Laptop -Elmo -Projector -SMART Board -Discovery Education online videos -YouTube videos
April	<b>Matter</b> How/Why do substances create solutions?	<b>Matter</b> -Chemistry -Chemical Changes -Chemical Properties -Carbon and Its Compounds	<b>Matter</b> -Understand the difference between nuclear fission and nuclear fusion -Recognize the difference between endothermic and exothermic -Analyze bases and acids and their differences -Explain how a pH scale works	<b>Matter</b> -Unit test (textbook created)	<b>Matter</b> Macmillan/ McGraw-Hill <i>Science-A Closer Look</i> (2011) -Text -Skill worksheet pages  -Interactive Notebook (teacher created)	<b>Matter</b> -Laptop -Elmo -Projector -SMART Board -Discovery Education online videos -YouTube videos

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May	<p><b>Electromagnetism</b>                      Why are some materials attracted to each other while others are not?</p>	<p><b>Electromagnetism</b>                      -Electricity                      -Static electricity                      -Magnetism                      -Electric current                      -Magnetic attraction                      -Magnetic fields                      -Magnetic poles</p>	<p><b>Electromagnetism</b>                      -Investigate properties of electromagnetism through hands on experiments</p>		<p><b>Electromagnetism</b>                      -Delta Science Module: Electromagnetism</p>	<p><b>Electromagnetism</b>                      -Laptop                      -Elmo                      -Projector                      -SMART Board</p>