

## 6<sup>th</sup> Grade Science Curriculum

Concept	Content (DCI)	SEP	Assessment	NGSS
<p>The History of Planet Earth</p> <p>Earth's Materials, Systems, and Natural Hazards</p>	<ul style="list-style-type: none"> <li>● Earth's layers</li> <li>● Geologic history of Earth</li> <li>● Tectonic plates</li> <li>● Seafloor spreading</li> <li>● Weathering and erosion</li> <li>● Geoscience processes</li> <li>● Natural hazard predictions</li> <li>● Natural disasters</li> </ul>	<ul style="list-style-type: none"> <li>● asking questions and defining problems</li> <li>● planning and carrying out investigations</li> <li>● analyzing and interpreting data</li> <li>● constructing explanations and designing solutions</li> <li>● engaging in an argument from evidence</li> <li>● develop and use models</li> </ul>	<ul style="list-style-type: none"> <li>● test/quizzes</li> <li>● labs/investigations</li> <li>● discussions/feedback</li> <li>● google classroom assignments/readings</li> <li>● data analysis and prediction</li> <li>● creating a 3D model of rock formation</li> </ul>	<ul style="list-style-type: none"> <li>● MS-ESS1-4</li> <li>● MS-ESS2-1</li> <li>● MS-ESS2--2</li> <li>● MS-ESS2-3</li> <li>● MS-ESS3-2</li> </ul>

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<p>Interdependent Relationships in Ecosystems</p> <p>Evidence of Common Ancestry and Diversity</p> <p>Changes in Organisms over Time</p>	<ul style="list-style-type: none"> <li>● Relationships in ecosystems</li> <li>● Flow of energy in ecosystems</li> <li>● Dynamic nature of ecosystems</li> <li>● Biodiversity</li> <li>● Fossil Record</li> <li>● Evolutionary history and relationships</li> <li>● Natural vs artificial selection</li> </ul>	<ul style="list-style-type: none"> <li>● asking questions and defining problems</li> <li>● planning and carrying out investigations</li> <li>● analyzing and interpreting data</li> <li>● constructing explanations and designing solutions</li> <li>● engaging in an argument from evidence</li> <li>● develop and use models</li> </ul>	<ul style="list-style-type: none"> <li>● test/quizzes</li> <li>● labs/investigations</li> <li>● discussions/feedback</li> <li>● google classroom assignments/readings</li> <li>● data analysis and prediction</li> <li>● experiential lab on ecosystem changes</li> <li>● project on predicting effects of changes to ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>● MS-LS2-1</li> <li>● MS-LS2-2</li> <li>● MS-LS2-3</li> <li>● MS-LS2-4</li> <li>● MS-LS2-5</li> <li>● MS-LS4-1</li> <li>● MS-LS4-2</li> <li>● MS-LS4-3</li> <li>● MS-LS4-4</li> <li>● MS-LS4-5</li> <li>● MS-LS4-6</li> <li>● MS-ETS1-2</li> <li>● MS-ETS1-3</li> </ul>

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Natural Resources and Human Impacts on Earth Systems  The Role of Water in the Earth's Surface and Weather and Climate	<ul style="list-style-type: none"> <li>● oceans/currents</li> <li>● water cycle</li> <li>● climate</li> <li>● atmospheric flow patterns</li> <li>● predicting weather</li> <li>● influences of weather and climate</li> <li>● Human impact on climate</li> <li>● human impact on environment</li> <li>● human dependence on natural resources</li> </ul>	<ul style="list-style-type: none"> <li>● asking questions and defining problems</li> <li>● planning and carrying out investigations</li> <li>● analyzing and interpreting data</li> <li>● constructing explanations and designing solutions</li> <li>● engaging in an argument from evidence</li> <li>● develop and use models</li> </ul>	<ul style="list-style-type: none"> <li>● test/quizzes</li> <li>● labs/investigations</li> <li>● discussions/feedback</li> <li>● google classroom assignments/readings</li> <li>●</li> </ul>	<ul style="list-style-type: none"> <li>● MS-ESS2-4</li> <li>● MS-ESS2-5</li> <li>● MS-ESS2-6</li> <li>● MS-ESS3-1</li> <li>● MS-ESS3-3</li> <li>● MS-ESS3-4</li> <li>● MS-ESS3-5</li> <li>● MS-ETS1-3</li> <li>● MS-ESS3-5</li> </ul>

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Waves and Electromagnetic Radiation (light)	<ul style="list-style-type: none"> <li>● amplitude</li> <li>● energy</li> <li>● reflection</li> <li>● transmission</li> <li>● absorption</li> <li>● refraction</li> </ul>	<ul style="list-style-type: none"> <li>● analyzing and interpreting data</li> <li>● using mathematics and computational thinking</li> <li>● obtaining ,evaluating, and communicating information</li> <li>● develop and use models</li> </ul>	<ul style="list-style-type: none"> <li>● test/quizzes</li> <li>● labs/student directed investigations</li> <li>● discussions/feedback</li> <li>● model building</li> <li>● scale model</li> </ul>	<ul style="list-style-type: none"> <li>● MS PS4 – 1</li> <li>● MS PS4 – 2</li> <li>● MS PS4 – 3</li> </ul>

*For more information on DCI or Disciplinary Core Ideas:*

<https://www.nextgenscience.org/sites/default/files/resource/files/AppendixE-ProgressionswithinNGSS-061617.pdf>

*For more information on Science and Engineering Practices:*

<http://www.nextgenscience.org/sites/ngss/files/Appendix%20F%20%20Science%20and%20Engineering%20Practices%20in%20the%20ONGSS%20-%20FINAL%20060513.pdf>

*For more information on the Next Generation Science Standards:*

*Middle School:*

<http://www.nextgenscience.org/msls1-molecules-organisms-structures-processes>