

This activity relates to the following National Science Education Content Standards\* (in green).

\*National Science Education Standards, 1996. National Research Council. National Academy Press. Washington D.C. Available on-line at [http://www.nap.edu/openbook.php?record\\_id=4962](http://www.nap.edu/openbook.php?record_id=4962).

GRADES K-4			
Unifying Concepts and Processes	Science as Inquiry	Physical Science	Life Science
Systems, order, and organization Evidence, models, and explanation Change, constancy, and measurement Evolution and equilibrium Form and function	Abilities necessary to do scientific inquiry Understanding about scientific inquiry	Properties of objects and materials Position and motion of objects Light, heat, electricity, and magnetism	Characteristics of organisms Life cycles of organisms
Earth and Space Science	Science and Technology	Science in Personal and Social Perspectives	History and Nature of Science
Properties of earth materials Objects in the sky Changes in earth and sky	Abilities of technological design Understandings about science and technology Abilities to distinguish between natural objects and objects made by humans	Personal health Characteristics and changes in populations Types of resources Changes in environments Science and technology in local challenges	Science as a human endeavor

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GRADES 5-8			
Unifying Concepts and Processes	Science as Inquiry	Physical Science	Life Science
<p>Systems, order, and organization</p> <p>Evidence, models, and explanation</p> <p>Change, constancy, and measurement</p> <p>Evolution and equilibrium</p> <p>Form and function</p>	<p>Abilities necessary to do scientific inquiry</p> <p>Understanding about scientific inquiry</p>	<p>Properties and changes of properties in matter</p> <p>Motions and forces</p> <p>Transfer of energy</p>	<p>Structure and function in living systems</p> <p>Reproduction and heredity</p> <p>Regulation and behavior</p> <p>Populations and ecosystems</p> <p>Diversity and adaptations of organisms</p>
Earth and Space Science	Science and Technology	Science in Personal and Social Perspectives	History and Nature of Science
<p>Structure of the earth system</p> <p>Earth's history</p> <p>Earth in the solar system</p>	<p>Abilities of technological design</p> <p>Understandings about science and technology</p>	<p>Personal health</p> <p>Populations, resources, and environments</p> <p>Natural hazards</p> <p>Risks and benefits</p> <p>Science and technology in society</p>	<p>Science as a human endeavor</p> <p>Nature of science</p> <p>History of science</p>

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GRADES 9-12			
Unifying Concepts and Processes	Science as Inquiry	Physical Science	Life Science
<p>Systems, order, and organization</p> <p>Evidence, models, and explanation</p> <p>Change, constancy, and measurement</p> <p>Evolution and equilibrium</p> <p>Form and function</p>	<p>Abilities necessary to do scientific inquiry</p> <p>Understanding about scientific inquiry</p>	<p>Structure of atoms</p> <p>Structure and properties of matter</p> <p>Chemical reactions</p> <p>Motions and forces</p> <p>Conservation of energy and increase in disorder</p> <p>Interactions of energy and matter</p>	<p>The cell</p> <p>Molecular basis of heredity</p> <p>Biological evolution</p> <p>Interdependence of organisms</p> <p>Matter, energy, and organization in living systems</p> <p>Behavior of organisms</p>
Earth and Space Science	Science and Technology	Science in Personal and Social Perspectives	History and Nature of Science
<p>Energy in the earth system</p> <p>Geochemical cycles</p> <p>Origin and evolution of the earth system</p> <p>Origin and evolution of the universe</p>	<p>Abilities of technological design</p> <p>Understandings about science and technology</p>	<p>Personal and community health</p> <p>Population growth</p> <p>Natural resources</p> <p>Environmental quality</p> <p>Natural and human-induced hazards</p> <p>Science and technology in local, national, and global challenges</p>	<p>Science as a human endeavor</p> <p>Nature of scientific knowledge</p> <p>Historical perspectives</p>