

Science	SCI.IV.1.5	Grade: K
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Strand: **Using Scientific Knowledge in Physical Science
- Changes in Matter**

Standard: **All students will explain how electricity and magnetism interact with matter.**

Benchmark: **Describe possible electrical hazards to be avoided at home and at school.**

Constructing and Reflecting:
SCI.I.1.1 - Generate reasonable questions about the world based on observation.
SCI.I.1.2 - Develop solutions to problems through reasoning, observation, and investigation.
SCI.I.1.5 - Develop strategies and skills for information gathering and problem solving.
SCI.I.1.6 - Construct charts and graphs and prepare summaries of observations.
SCI.II.1.1 - Develop an awareness of the need for evidence in making decisions scientifically.
SCI.II.1.2 - Show how science concepts can be illustrated through creative expression such as language arts and fine arts.
SCI.II.1.3 - Describe ways in which technology is used in everyday life.

<p>Vocabulary / Key Concepts</p> <ul style="list-style-type: none"> • Shock • Wall outlet • Hazards 	<p>Context</p> <p>Electrical Outlets Power Lines Frayed Electric Cords Electric Appliances Lightning Hair dryer in sinks and tubs.</p>
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<p style="text-align: center;">Knowledge and Skills</p> <p>Students will:</p> <ul style="list-style-type: none"> • Identify possible electrical shock hazards such as wall outlets, frayed wiring and downed electrical lines. • Describe how to avoid possible electrical shock hazards. • Explain why objects or body parts should never be inserted into outlets or electrical appliances. 	<p style="text-align: center;">Resources</p> <p>AEP Power Company: Louie The Lightning Bug – will come to school and do program. Principal will schedule (remind).</p>
<p style="text-align: center;">Instruction</p> <p>Benchmark Question: What are electrical hazards?</p> <p>Focus Question: What are electrical hazards at home and school?</p> <p>Through illustrations, students will identify common electrical hazards.</p> <p>Role play safety rules for encounters with electrical hazards.</p>	<p style="text-align: center;">Assessment</p> <p>None</p>

Teacher Notes:**Explain how electricity (and magnetism) interact with matter.**

All students should know safety precautions about electricity. Beginning in the third and fourth grade, students should be constructing simple and useful electrical circuits. They should be able to understand how a flashlight works. In the middle school, the building of simple circuits is explained in terms of flow of current. Students also move beyond looking at battery powered toys to explaining how electrical devices such as radios and stereo systems work using appropriate safety precautions. Finally, at the high school level students will explain how current is controlled in simple, series and parallel circuits. They also will consider the interaction of wires and magnets to produce electric currents.