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North Central Ohio Educational Service Center

Electricity Content Standards

Kindergarten
Scientific Inquiry
Doing Scientific Inquiry
1. Ask "what if" questions.
2. Explore and pursue student-generated "what if" questions.
Scientific Ways of Knowing
Science and Society
4. Demonstrate ways science is practiced by people everyday (children and adults.)

Grade One
Physical Sciences
Nature of Energy
7. Explore how energy makes thinks work (e.g., batteries in a toy and electricity turning fan blades.)
9. Describe that energy can be obtained from many sources in many ways (e.g., food, gasoline, electricity, or batteries.)
Scientific Inquiry
Doing Scientific Inquiry
1. Ask "what happens when" questions.
2. Explore and pursue student-generated "what happens when" questions.

Grade Two
Scientific Inquiry
1. Ask "how can I/we" questions.
2. Ask "how do you know" questions (not "why" questions) in appropriate situations and attempt to give reasonable answers when others ask questions.
3. Explore and pursue student-generated "how" questions.

Grade Five
Physical Sciences
Nature of Energy
3. Describe that electrical current in a circuit can produce thermal energy, light, sound, and/or magnetic forces.
4. Trace how electrical current travels by creating a simple electric circuit that will light a bulb.

Grade Six
Physical Sciences
Nature of Energy
7. Describe how electric energy can be produced from a variety of sources (e.g., fossil fuels, trees, and water.)

Grade Seven
Physical Sciences
Nature of Energy
5. Trace Energy transformation in a simple closed system (e.g., a flashlight.)

Grade Eleven
Physical Sciences
Forces and Motion
4. Explain how electric motors and generators work e.g., relate that electricity and magnetism are aspects of a single electromagnetic force.)
5. Investigate that electric charges in motion produce magnetic fields and a changing magnetic field creates an electric field.