



## **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 things 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.