



## **Electrical Safety World (*Grades 4-6*)**

### **Virginia Educational Standards**

*Electrical Safety World* fulfills many of the Virginia Standards of Learning in the areas of health and science. These standards are met through a variety of content, including features, assessments, activities, checklists, and hands-on investigations. This activity book supports the following Standards of Learning.

#### **GRADE LEVEL OBJECTIVES**

##### **Health**

##### **Grade 6**

6.4 The student will analyze the consequences of personal choices on health and well-being.

Key concepts/skills include

- d) identification of risk behaviors
- e) strategies for preventing and responding to injuries

6.5 The student will demonstrate injury prevention and management skills to promote personal and family health. Key concepts/skills include

- a) safety habits in vehicles and public areas
- b) first aid and safety practices
- c) strategies to avoid accidents
- d) the need for and use of protective gear

##### **Science**

##### **Grade 4**

4.3 The student will investigate and understand the characteristics of electricity. Key concepts include

- a) conductors and insulators
- b) basic circuits (open/closed, parallel/series)
- d) the ability of electrical energy to be transformed into heat, light, and mechanical energy
- f) historical contributions in understanding electricity

4.8 The student will investigate and understand important Virginia natural resources. Key concepts include

- c) minerals, rocks, ores, and energy sources

##### **Grade 5**

5.4 The student will investigate and understand that matter is anything that has mass, takes up space, and occurs as a solid, liquid, or gas. Key concepts include

- a) atoms, elements, molecules, and compounds

**Grade 6**

6.2 The student will investigate and understand basic sources of energy, their origins, transformations, and uses. Key concepts include

- c) nonrenewable energy sources (fossil fuels including petroleum, natural gas, and coal)
- d) renewable energy sources (wood, wind, hydro, geothermal, tidal, and solar) and
- e) energy transformations (heat/light to mechanical, chemical, and electrical energy)

6.4 The student will investigate and understand that all matter is made up of atoms. Key concepts include

- a) atoms are made up of electrons, protons, and neutrons
- b) atoms of any element are alike but are different from atoms of other elements