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Lesson Plans


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Electric Switches

[Download Full Lesson Plan](#)
(Full teacher resource documents are included)

Lesson Focus
Demonstrate how electric circuits can be controlled with a simple switch. Note: This lesson plan is designed for classroom use only, with supervision by a teacher familiar with electrical and electronic concepts.



Lesson Synopsis
Students will incorporate a simple switch into a battery/bulb circuit. Students will also use their knowledge of circuits to design and make their own switches using common materials. Students will also identify switches found in common appliances.

Age Levels: 8-11

Objectives

- Learn how switches control the flow of electricity.
- Learn to draw basic wiring diagrams.
- Learn to predict outcomes and draw conclusions.

Anticipated Learner Outcomes
As a result of this activity, students should develop an understanding of:

- switches
- circuits and current
- basic electrical diagrams
- making predictions and testing a hypothesis

Lesson Activities

The Electric Switches activity encourages students to design a simple switch into an electric circuit. Students work in teams to create their design with wires, batteries, a bulb, and a simple switch. They also develop a schematic of their electrical diagram. Then student groups compare results and discuss findings.

Resources/Materials

- Teacher Resource Documents (attached)
- Student Worksheets (attached)
- Student Resource Sheets (attached)

Alignment to Curriculum Frameworks

Curriculum alignment sheet is included in [PDE](#).

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