

How does a fuse work?

Teachers Notes - Lesson 3 - Slide 12

Teacher Demonstration

This flash activity provides students with a visual demonstration of how a fuse works.

Suggested activity steps are outlined below:

Activity steps

- Revise open and closed circuits with students.
- Discuss what may happen to wires if too much electric current flows through them.
 - Wires could melt and may cause a fire.
- Begin the flash activity and ask students to observe what happens.
- Connect the wires to each end of the fuse wire to close the circuit.
- Discuss:
 - What happened to the fuse wire?
- Have students suggest:
 - an explanation for their observation (too much electricity flowing through the fuse wire).
- Have students draw and label a diagram of the virtual experiment.
- Discuss:
 - Ask students to explain the simile “a fuse is like an electrical watch dog.”
 - Why should you not plug too many appliances into a wall socket?
- Most modern houses have circuit breakers or safety switches.
Research one of the devices.