



## Conductors and insulators

### BOX NOTICE

|                                     |  |
|-------------------------------------|--|
| Name of the activity                | Conductors and insulators  |
| Activity duration                   | 1h   |
| Material needed                     | "Conductors and insulators" box, a lightbulb, a battery, 3 electrical wires, a glass, a piece of iron, copper and plastic, other materials to test, a resistor (last activity of sequence 1) |
| Number of pupils involved (per box) | 2-3 to test the materials  |

### Step 1: Storytelling

Use the storytelling resource to set the stage for your pupils. Build the scene as indicated in the Creation of the elements file, and follow the instructions of the Electrical artist's book to create the stage for the story. Stress out the importance of Stephen Gray in the discovery of electrical insulators and conductors, whose impact was greatly diminished by the most famous scientists of his time. Do not hesitate to ask your pupils questions to have them participate in the story!

### Step 2: Experimentation

Use the scheme presented in the Creation of the elements file as a model to build the electrical circuits in both sequences.



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# TECHNOLOGY

In the first sequence:

Use the material provided with the box and ask your pupils to add other materials to test the material with (such as a piece of paper or a wooden stick). Only add the resistance after the first tests, so your pupils will already be familiar with the concepts of conductor and insulator.

In the second sequence:

Use the material provided with the box and the schemes from the sequence. To complete the last step of the sequence, you may ask your pupils to draw the electrical circuit of the classroom. Point out where the electricity is generated and what the appliances are. Have your pupils reflect on the circuit they created, the amount of energy produced, and how this applies to everyday electricity production.



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