

Activity: Test these different materials to see if they are conductors or insulators.



Coin



Pencil



Eraser



Dollar Bill



Paper Clip

**Red** - Test the following materials and write a sentence explaining if the material is a conductor or an insulator.

Once tested the materials on their circuit, examples of sentences they could write are as follows:

- Coin - The coin is an electrical conductor.
- Pencil - The pencil is an electrical conductor.
- Eraser - The eraser is an electrical insulator.
- Dollar bill - The dollar bin is an electrical insulator.
- Paperclip - The paperclip is an electrical conductor.

They could also write what it isn't and what it is, eg:

The coin is not an electrical insulator, it is a conductor.

**Yellow** - Write a paragraph explaining which materials you tested were conductors and insulators, and explain how you know this.

Once tested the materials on their circuit, an example paragraph they might write is as follows:

I used various materials in an electrical circuit to test if they were electrical conductors or electrical insulators. The coin, pencil, and paperclip are electrical conductors. I know this because they completed the electrical circuit and the bulb turned on. However, the eraser and dollar bill are electrical insulators. I know this because the electrical circuit was incomplete and the bulb did not turn on.

**Green** - Write a paragraph explaining what a conductor and an insulator is with example materials for both. Continue to explain what you learnt when testing the materials in this lesson.

An electrical conductor is a material that allows an electric current to flow through it, and completes a circuit. Examples of materials that are conductors are most metals. An electrical insulator is a material that does not allow an electrical current to flow through it, therefore the electric circuit will be incomplete. Example materials that are electrical insulators are wood or plastic. I used various materials in an electrical circuit to test if they were electrical conductors or electrical insulators. The coin, pencil, and paperclip are electrical conductors. I know this because they completed the electrical circuit and the bulb turned on. However, the eraser and dollar bill are electrical insulators. I know this because the electrical circuit was incomplete and the bulb did not turn on.