



Credit: Getty Images

# Conductors and insulators

Given half a chance, energy will flow, transferring itself from one system to another. This activity uses polystyrene foam, metal, wood, glass and plastic to explore the properties of conductors and insulators.

## You will need

- Assortment of materials, including polystyrene foam, metal, wood, glass and plastic
- Thermometer

## Steps

1

Lay all the materials on a flat surface and leave for a few minutes until they reach room temperature.

2

Ask one person to measure the temperature on the surface of each of the materials.

3

Ask the class to predict which will be warmest, coldest, etc.

4

Ask one child to touch each object for a count of ten seconds before arranging the items in order – hottest to coldest – and recording findings.

5

Measure the temperature of each item again and compare with recorded findings based on perception of temperatures.

## Analysis/ discussion

**Before measuring the surface temperature of each item, ask the children to predict which ones they think will be hottest and coldest.**

**Ask the children to explain why they think there is a difference between the perceived and actual temperature of each item. (They should all be the same temperature but feel different because some materials are better conductors than others.)**

**What does this teach us about insulators and conductors?**