

Trend task

Mystery Wires

Approach: Station

Level: Year 4 and year 8

Focus: Use a continuity tester (linked battery and bulb) to test and decide which of 6 wires are connected.

Resources: Continuity tester (linked battery and bulb with alligator clips), cardboard with 6 wires sticking out. (blue and grey wires connected internally, red, cream and yellow wires all connected internally)

Questions/instructions:

In this activity you will be finding out how the wires are connected inside the cardboard.

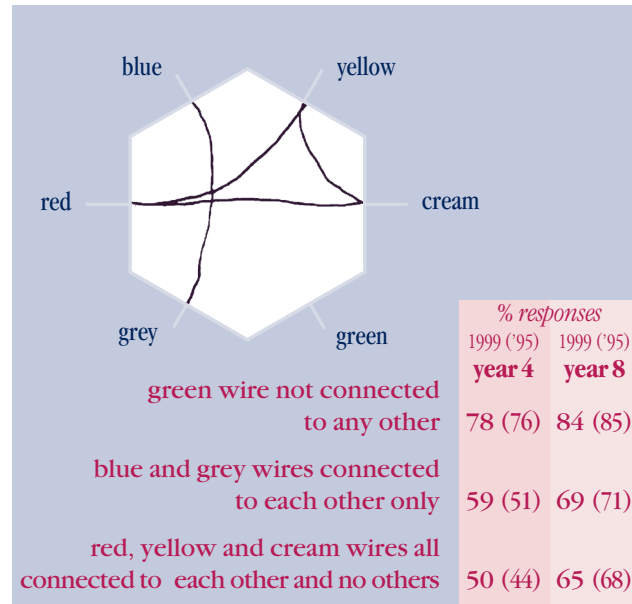
1. Check that everything on the board is working by touching the 2 loose alligator clips together.

The bulb will go if everything is working. If the bulb does not go, tell the teacher now.

Inside the cardboard some of the wires are joined to other wires. Each wire might be joined to 1 other, 2 others, or no others.

Use the board with the battery and bulb to find out which wires are connected.

2. Draw lines on the diagram below to show which wires are connected.



Commentary:

Year 8 students did better than year 4 students, particularly on the more complex components of the task. There was little difference in performance from 1995 to 1999 for year 8 students, but a small improvement for year 4 students.