

## **Physics Lab**

### **Properties of Resistance**

*This lab will be assessed against all the assessment criteria.*

#### **Introduction**

The resistance of an object depends on a number of factors, including the material out of which it is made and on its dimensions. In this lab you will design a series of experiments to determine how the resistance of a rectangle of conductive paper depends on factors like its length and width.

#### **Procedure**

First you should state a quantitative theory linking resistance to the variables you wish to investigate. Then you should design at least two experiments to test the theory. You will be given one piece of conductive paper, which you may cut as you see fit. Design your experiments carefully so that you can collect sufficient data before running out of data. Make sure you make good use of graphical analysis to test your theory. If you design your experiment carefully you should be able to measure the resistivity of the conductive paper.