# Lesson Element

# Characteristic Curves



**Equipment**: Smooth power supply; rheostat/potentiometer; ammeter; voltmeter; connecting wires; range of components (ohmic resistor; diode; LED; thermistor; LDR)

Set up the circuit as shown in the diagram. **Make sure that the ammeter is initially set at the highest value to reduce chances of blowing the fuse.**

### Task

1. To measure the characteristic curve for a component you must change the voltage and measure the current.
2. Find the maximum and minimum values of voltage that give appropriate readings, and then select the steps needed to give the required number of values.
3. Measure the current as the voltage is changed across a component.
4. Repeat the previous two steps with each of the components.
5. Draw the current – voltage curves for each component.
6. Calculate the resistance of the components.