**Activity 1 – Ohm’s Law**

**Data Table:**

3 neatly completed data table for all three resistors

**Graph:**

potential drop Vs current

7

Potential drop (V)

Current (A)

**Calculation - slope**

6 slope calculations using points that are on the line (2 marks for each calculation)

3 units are included in the calculation and answer for each calculation

**Activity 2 – Series Circuits**

**Procedure:**

3 measured resistance values

1 measured total resistance

1 calculated total resistance

1 comparison statement

4 calculations of potential drops and currents

Io = Vo/Rt I1 = I2 = I3 = Io

V = I R for each resistor

3 measured values are in the table opposite calculated values

**Questions:**

1 One path for the electrons.

1 Effect is that the current is the same for each resistor.

1 calculation of potential drops

1 statement of comparison

1 total current is the same for the current in each individual resistor

\_\_\_\_ / 37 for this page**Activity 3 – Parallel Circuits**

**Procedure:**

1 measured total resistance

1 calculated total resistance

1 comparison statement

4 calculations of potential drops and currents

V1 = V2 = V3 = Vo

I = V/R for each resistor

Io = I1 + I2 + I3

3 measured values are in the table opposite calculated values

**Questions:**

1 Three paths for the electrons.

1 Effect is that the potential drop is the same for each resistor.

1 calculation of currents

1 statement of comparison

1 potential drop from power source is the same for each individual resistor

**Activity 4 – Combined Circuit**

**Procedure:**

1 measured total resistance

2 calculated total resistance

1 comparison statement

4 calculations of potential drops and currents

treat R2 + R3 as one resistor

V1 = V2/3 = Vo

I = V/R for each resistor

3 measured values are in the table opposite calculated values

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