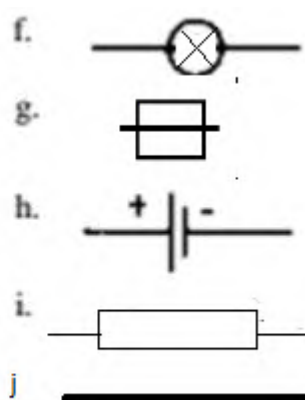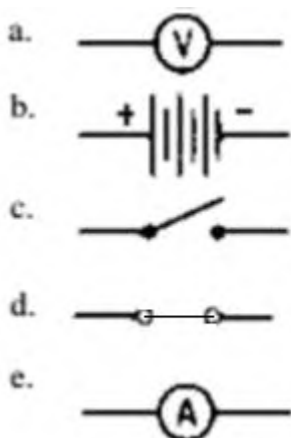Natural Science   Grade 9

REVISION   SEPTEMBER   2021   NB. **All work** in TERM 3 is tested.

Question 1   *Match the symbols with the appropriate number below eg 1.1 h*

1.1 Single cell

1.2 Voltmeter

1.3 Three cells in series

1.4 Open switch

1.5 Closed switch

1.6 Ammeter

1.7 Light bulb

1.8 Fuse

1.9 Resistor

1.10 Conductor   (10)

Question 2

The following data was collected during an experiment investigating the relationship between voltage and current <u>in a circuit containing one resistor</u>. (cells were added in series to obtain the results below)
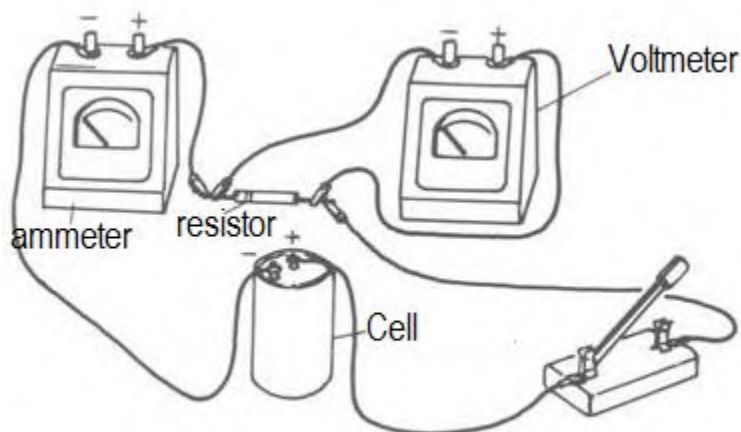
Potential difference (V)	Current (A)
2	1
4	2
6	3
8	4
10	5

"If I have seen further it is by standing on the shoulders of Giants." *Sir I. Newton*

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2.1   Plot a graph using these results.   (5)
      Using the data, draw a fully labelled **Line graph**.
            (Potential difference on the X axis and Current on the Y axis)

2.2   Using the following picture draw a circuit diagram from it.   (4)

2.3   A toaster has a resistance of 10ohms, a current of 5Amperes passes through
      the toaster. What will a voltmeter read, if connected across this toaster?

                                                                              (3)

Question 3
3.1   A washing machine has a power rating of 400 W. It takes the machine
         0,5 hours to completely wash a 6 kg load of heavily soiled laundry. Eskom
         charges energy usage at R1,65 per kWh. Calculate the cost if the washing
         machine works for 0,5 hours. (Show all working clearly)

Question 4

Complete the table below

Object Mass (kg)	Weight (N) on Earth	Weight (N) on Moon
Average Man 95		
Bag of Dog food 8		
Packet of sugar 2.5		
Packet of spaghetti 0.5		

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