S2 Investigation –Help Sheet

Processing Data

Excel Graphs

Writing A Scientific Report

Diagram

<http://www.wikihow.com/Write-up-a-Science-Experiment>

**Title**

1. What is the title of your investigation? Make it clear and informative.

**Aim**

1. What are you trying to find out (we call this your aim)

**Hypothesis**

1. What do you expect to happen? Generally say *As one thing increases the other things increases/decreases\** (delete where applicable)

**Apparatus**

1. What equipment will you need? (this is your apparatus list, and it can be a list)

**Diagram**

1. Draw a diagram to show how you will set up. This should be at least half a page, drawn with a ruler and clearly labelled

**Variables**

1. What things will you keep the same in your experiment? (It generally is everything apart from what you change and what you will measure) These are called your **control variables** and will help make your experiment a fair test)
2. What are you going to change? (what variable are you changing- remember to change only ONE thing) This is your independent variable, remember

**“I** change the **Independent** variable”

**Method**

1. Now write a method of what you did. It should be like a step by step guide to what exactly you did. Give as much detail as possible. (*Think of it like a recipe in HE. If there is not enough detail other people couldn’t cook the same meal.*)
2. Include in your method, what 2 things are going to measure and include the equipment to measure this?
3. How many readings will you take?
4. How will you change your variable?

**Safety**

1. Is there anything that you need to do to keep safe?

**Results**

1. Draw a table to show how you will record your results.
2. Plot a **line** graph of your results, and draw a best fit line through it with a ruler.

**Conclusion**

1. What do your results show? Does your independent variable increase as your dependent variable increases? Does your independent variable increase as your dependent variable decreases? Is it a straight line through the origin of the graph (we like these in Physics!)

**Evaluation**

1. Did you get the results that you expected?
2. What could you have done differently to make the experiment better?
3. Are there any points that don’t fit on the line?
4. Did you take the readings properly?