

Skills Unit Assignment
Home Experiment

Either in partners or individually, choose one of the following problems listed at the bottom of this sheet and use proper scientific method to find answers to the problem chosen.

DUE DATE: _____

Your lab write-up should contain the following sections:

1. Title page – your name, partners name (if applicable), title, date, pictures (optional) **[3 marks]**
2. Purpose – reason for your investigation, include what you will change (IV) and what you will measure (DV) **[2 marks]**
3. Variables – list the independent variable, dependent variable and at least 4 control variables **[5 marks]**
4. Hypothesis – “If ... then ...” statement **[1 mark]**
5. Materials – list that includes everything **[2 marks]**
6. Procedure – detailed and specific set of instructions for conducting experiment (consider doing more than one trial to get more accurate results) **[4 marks]**
7. Observations – chart and graph (use your notes or textbook for references on choosing the appropriate graph) **[6 marks]**
8. Conclusion – state whether the hypothesis was right or wrong, and the results that proved this conclusion **[2 marks]**
9. Discussion – include improvements needed, sources of error (at least 2), and any experiments that you believe would be interesting to follow up the one you conducted
 - also include reasons why you believe your results occurred **[5 marks]**

TOTAL _____
30

Choose one of the following problems to investigate:

1. Does warmer water freeze more quickly? (3 temperatures)
2. Do objects with more mass fall faster? (3 objects)
3. Do all paper towels have the same strength when wet? (3 brands)
4. Does colder water boil quicker? (3 temperatures)
5. Do all materials insulate (keep things cool) equally well? (3 materials)
6. Will a higher launch angle for a projectile result in a greater distance? (3 angles)
7. Does paraffin wax float in most liquids? (3 liquids)
8. Will salt melt snow faster than other materials? (3 materials)
9. Choose your own! (BUT ... has to be approved by your teacher before you can begin)