

Lab Report Guidelines

Name
Science 7. _____

Class # _____

Title (reflects the topic)

Purpose (question): usually in the form ‘How does _____ affect _____?’

Hypothesis: what you think the answer to the above question is, usually in the form “If _____, then _____”

Manipulated variable (the one you change)

Responding variable (the one you measure)

Materials: always a bulleted list

Procedures: always a numbered list of steps. Another person should be able to perform your experiment by following your procedures and using the listed materials.

Observations:

Table Guidelines

- Always use pencil and ruler
- The table has to have a title
- Usually you will have at least three trials for each change of the manipulated variable
- Put manipulated variable on the left and responding variable on the right
- Do not forget a column for “average”
- Make sure to include units of measurement

After you complete your measurements, create a graph. Graph has to have a title that explains the variables it represents.

Graphing Guidelines

- Purpose of a graph is to show data visually
- Graphs show AVERAGED data – NOT raw data
- Hand-drawn graphs should always be done on graph paper, not lined or plain paper
- *Bar graphs* are used for discontinuous data (data that is not connected, such as types of fruits)
- *Line graphs* are used for continuous data (data that is connected, such as over a period of time). Lines consist of connected dots.
- X axis: the horizontal axis (across the page)
 - Usually, the X axis shows the manipulated (independent) variable
- Y axis: the vertical axis (up and down the page)
 - Usually, the Y axis shows the responding (dependent) variable
- Title: graphs must have a title, centered at top
- Numerical Data: listed ON a line on the axes (for example: the 0 is ON the bottom line)
- Labels: graphs must have labels on the X axis and Y axis in addition to data values
 - All labels must give the units for the data (examples: cm, grams, ° Celcius)

Conclusion describes results in words and states whether the hypothesis was correct or not.