

DESIGNING AN EXPERIMENT

Collect Background Information:

What is your topic?

Why are you interested in studying this?

Where can you look to find more information?

What is the question you are trying to answer? Why are you doing this experiment?

What is your hypothesis? (what do you think is going to happen and why?)

What are the goals of your experiment?

How are you going to accomplish your goals?

Conducting your experiment:

What is your INDEPENDENT VARIABLE?

What is your DEPENDENT VARIABLE?

What things are changing during your experiment?

What things are staying the same (controlled) during your experiment?

Do you have a control group? Why do you or do you not have a control group?

Collecting Data:

How are you collecting data?

How often is your data going to be collected?

How can you ensure that your data is VALID and RELIABLE?

Interpreting your results:

What results did you achieve from your experiment?

What do you think your results mean?

How would you depict the results of your data?

Conclusions:

What conclusions can you make from your data?

Was your original hypothesis right or wrong?

What have you learned from this experiment?

If you were to complete this experiment again what would you change and why?