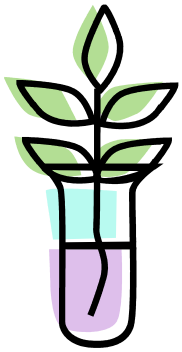
Independent Investigation

The Procedure

Name _____

Date _____ Class_____



IMPORTANT NOTE:

This section will describe the procedure you will use to test your hypothesis. By completing this worksheet you will identify the critical parts of your investigation.

- The materials that you will use,
- The variables that you will test,
- The steps that you will follow,
- The way that you will measure and record the dependent variable.

I. Choosing a Title

Now it is time to come up with a title for your investigation. You may put your title in the following form: ***The Effect of (your independent variable) on (your dependent variable),*** or you may write your own title.

Title:

II. Variables

Next write down three ways in which you will control your experiment. These are called **controlled variables**. Since you only want to test one variable in your experiment you need to control (that means to keep the same) all of the other variables that you listed. In the second column describe what you will do to make sure that the variable in the first column stays the same for all of the parts of your experiment so that they will not affect the outcome or results.

	Controlled variables	How you will control the variable.
1.		
2.		
3.		

Write down your **independent variable** below that you are testing. The independent variable is the thing that you are going to change in your experiment. In the second column, write an explanation of what you will "change" in your experiment.

	Independent variable	Explanation

Write the **dependent variable** that you will measure to test your hypothesis. The dependent variable is the thing that you are going to observe or measure in your experiment. You may have more than one dependent variable depending on your experiment.

	Dependent variable	How will you measure it

III. Frequency

Now decide how often you will measure the dependent variable. How often you measure will depend on how fast something changes. You might measure several times a day or once a week or something in between.

How often will you measure your dependent variable?

_____

Next you will need to decide how long you need to take measurements to find out the answer to your question. If the change that you expect to measure is slow you might have to take measurements for a several weeks. Some things happen quickly and you can find out your answer in an hour.

How long will you measure your dependent variable?

_____

IV. Procedure : Write a clear, easy to understand description of what you are going to do to test your hypothesis. Include as many details as you can. Keep your steps organized by numbering or lettering them.

V. Materials: Make a list of all of the materials that you will need to test your hypothesis. Include the amount of each item that you will need.

VI. Safety Considerations: Describe anything in your investigation that might cause harm to you or someone else or damage to anything around you. Tell what you will do to prevent any injury or damage.

Adult Agreement:
I have discussed this investigation with _____ and I will help to make sure that this investigation does not result in any injury or damage.

Adult Signature _____ date _____

Grading Rubric for Purpose:

	Points	*Student Check*	*Teacher Check*
Appropriate Title	(3)	_____	_____
Appropriate Variables	(6)	_____	_____
Frequency of experimentation	(3)	_____	_____
Final Procedure	(6)	_____	_____
Appropriate Materials	(3)	_____	_____
Safety considerations	(2)	_____	_____
Parent agreement	(2)	_____	_____

Total Points _____ / 25