



Seed and Water Experiment Worksheet

Your challenge is to create your own experiment with seeds and water as variables. One idea might be to see whether carrot seeds from 2018 or 2023 germinate better. Another idea could be to use the same broccoli seed but using water from a rain barrel vs. from the water fountain. This experimentation will help you be better plant parents by understanding which inputs best suit your plants' needs.

Choose your variables. Your **control** variable stays the same throughout the entire experiment. Your **independent/experimental** variable is what you change, that is different from your control. For example, if I want to know what water is better for watering my plants, I will use a control variable of pea seeds and my experimental variable will be the water from different locations (see below). Your **dependent/measured** variable will be what data you collect to determine the outcome of your experiment.

Example

- Control Variable: Pea Seeds and Rain Barrel Water
- Independent/Experimental Variable: Water. I will be using water from a water fountain and from the vermicompost bin.
- Dependent/Measured Variable: Height of pea plants growing

Your Variables:

Control Variable: _____
Independent/Experimental Variable: _____
Dependent/Measured Variable: _____

Next you need your prediction. What do you expect to happen in your experiment?

Example

- Prediction: Pea seeds grown using vermicompost water will grow the most during the experimental time period. The seeds grown with water fountain water will grow the least.

Your Prediction:

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Include all materials you will need to complete your experiment.

Materials List:

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Collect data to measure the success of your experiment. This will vary depending on what experiment you decide to do.

Take a picture of your experimental set up!

Example

Broccoli Seeds Watered from Different Sources

Control: Rainwater					
	1/18/2023	1/21/2023	1/24/2023	1/27/2023	1/30/2023
Pot 1					
Pot 2					

Experimental: Fountain Water					
	1/18/2023	1/21/2023	1/24/2023	1/27/2023	1/30/2023
Pot 1					
Pot 2					

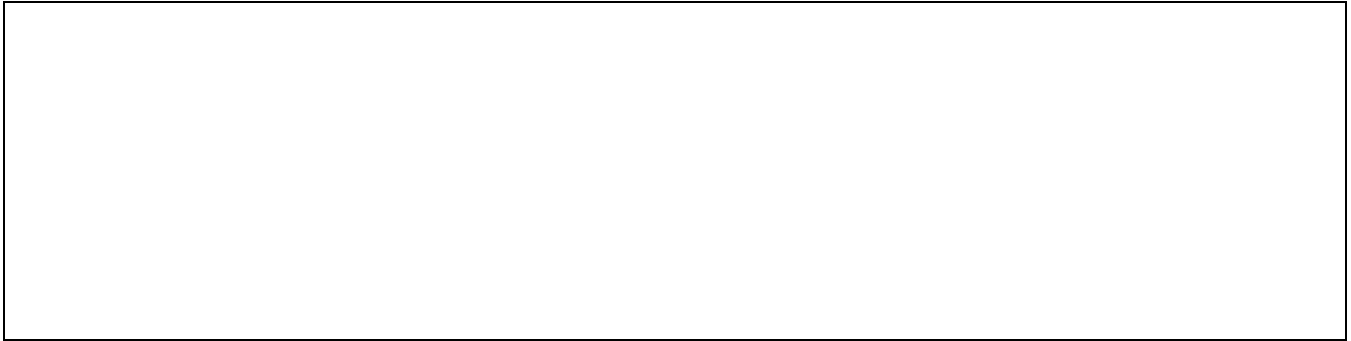
Experimental: Vermicompost Water					
	1/18/2023	1/21/2023	1/24/2023	1/27/2023	1/30/2023
Pot 1					
Pot 2					

You can choose to organize your data however you'd like, above is an example of one way you can organize it. The next page is left blank so you have space to record your data.

Data:

Discuss your data and what you found. What was the most successful? The least? **Take a picture of your results!**

Data Findings:



Pictures:

Finally, summarize your findings. Knowing the results of the experiment, would you change how you take care of your plants now? Were there any sources of error (like forgetting to water one day or measuring incorrectly)? How do you think these errors might have changed your data findings? Reflection should be 3-5 sentences.

Reflection:

