



## Activity Title: The Journey Of A Seed

In this experiment, we will explore seed germination, what factors can affect it, and different ways to present it.

1. Collect the needed materials: seeds, paper towel, Ziploc, water.
2. Take the paper towel and get it wet. You can squeeze out the excess water so it is not dripping everywhere, but it should be quite wet.
3. Place a known number of seeds on the wet paper towel. Five or ten is a good number to test.
4. Fold the paper towel so that the seeds don't fall out and place it inside the Ziploc. Do not fold the paper towel too tightly. Do not seal the Ziploc as the seeds need air.
5. Find a place for your seeds. They need to be checked everyday so make sure it is an accessible space
6. Everyday check your seeds to see if any are germinating. It may take anywhere from a few days to a couple weeks to start germinating. Count and record the number of germinated seeds each day.
  - a. If you are finding that your seedlings are going moldy or dying after they have germinated, you do have the option to remove the seeds that have germinated each day and add the number of seeds from each day to determine the total number of seeds.
7. Add water to the paper towel whenever it is drying out as the seeds need to remain wet.
  - a. How often you need to add water depends where your seeds are placed – a sunny place would need to be watered more often than seeds in the dark.
8. Continue monitoring your seeds until no more germinate. This could mean 1 week of no new germination or even longer.

### What To Do With Your Germination Data

#### *Germination Rate*

Calculate your germination rate using this equation (Total Number of Seeds Germinated / Total Number of Seeds) x 100%.

#### *Graph Germination Pattern*

Create a graph with Number of Seeds Germinated on the Y axis and Number of Days along the X axis. Record the number of seeds germinated for each day.

### Experimental Extensions

1. Compare different species.
2. Test your seeds in the light and the dark.
3. Try a few places that may have different temperatures and see if that changes your results.

**Journey of a Seed experimental video produced by Future Energy Systems - provides background information and instructions for experiment:**

<https://youtu.be/0fAcw1B-nqM>.

Name:

Species you are exploring:

Where are your seeds:

Day	Number of Seeds Germinated
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

