



# SEED GERMINATION IN A PAPER TOWEL

## PLAN AHEAD:



Complete before upcoming season's planting window to gain knowledge about which crops will germinate when.

## PURPOSE:



To learn about seed germination rates for a variety of different vegetable seeds. This can be helpful when planning out your garden and deciding when to plant each seed variety.

## MATERIALS:



- Paper Towels
- Plastic Ziploc Bags
- Water
- Record Sheet
- Seed Examples:
  - Peas (Spring)
  - Carrots (Spring/Fall)
  - Lettuce (Spring/Fall)
  - Cucumber ( Summer)
  - Beans (Summer)

## PROCEDURE:



1. Count out 10 seeds of each type.
2. Dampen several sheets of paper towel (2 for every seed variety you're using. Make sure they are not sopping wet).
3. Stack 2 sheets of paper towel together.
4. Place all 10 seeds of a single seed type on the paper towels, leaving a little room between each seed.
5. Carefully roll up the paper towel so that all seeds are inside and covered. Fold the roll in half.
6. Put the roll into a plastic bag, label with seed name and seal.
7. Repeat steps 2-6 with each seed variety.
8. Store each Ziploc bag in a warm place.
9. After 4 days, open each roll and count the number of seeds that have sprouted. On the record sheet write down the number of seeds and date they germinated.
10. If there are seeds that have not sprouted re-roll the towels and put back in the plastic bag. Check the seeds every 3-4 days and record the number of seeds that have germinated.
11. After all of the seeds have germinated, complete record sheet and answer seed germination worksheet questions.



## Seed Germination in a Paper Towel Record Sheet

Seed Type	1 <sup>st</sup> Check Date: _____	2 <sup>nd</sup> Check Date: _____	3 <sup>rd</sup> Check Date: _____	4 <sup>th</sup> Check Date: _____	Total	% of Moldy Seeds	% of Seeds Germinated

To figure percentage of germinated seeds use this example:  
 Only 7 of our bean seeds sprouted out of the 10.

- 7 seeds of 10 germinated
- Divide 7 by 10
- $7/10 = .7 \quad .7 \times 100\% = 70\%$  of the seeds germinated

1. If some of the seeds were moldy, when did it happen? What conditions could have caused the mold to grow?

2. Which seed variety germinated first and which last? List some reasons for why seeds may germinate at different rates.

3. What was the first plant part to appear from the seed? Why do you think this is? On the back of this sheet, draw a picture of how the seed looks once it has germinated.