

TESTING SEEDS FOR GERMINATION



OBJECTIVES

Students will learn how to test the germination of seeds. This activity will teach students how to create an environment with water, oxygen, and warmth for the seeds to germinate.

MATERIALS NEEDED

- Seeds
- Paper towel
- Plastic bags
- Container
- Soil
- Water

ESSENTIAL QUESTIONS

- What are the necessary conditions for seeds to germinate and how long does it take?
- How can you test for seed germination?
- When is the best time to plant seeds after they have been germinated?

LESSON

Testing seeds for germination is a way to determine if a particular seed will grow. By providing the right conditions, you can increase your chances of successful germination.

Testing Seed Germination

Soaking Seed Test

1. Fill a container with water and place it in a warm place.
2. Soak the seeds in water overnight.
3. Place the soaked seeds on a paper towel and fold the towel over.
4. Put the towel in a plastic bag and seal the bag.
5. Put the bag in a warm place.
6. Check the seeds every day to see if they have germinated.

Paper Towel Test

1. Get some paper towels and moisten them with water.
2. Place the seeds on moist paper towels.
3. Place the paper towels in a warm place.
4. Check the seeds every day to see if they have germinated.

Tip: Seeds will usually germinate within 7-10 days. Some seeds may take longer to germinate.

To calculate the seed germination rate, students can use this formula:

$$\frac{\# \text{ of seeds sprouted} \times 100}{\# \text{ of seeds tested}} = \% \text{ germination rate}$$

Learn more about [Seed Germination Rate](https://bit.ly/3WSYouF).
(<https://bit.ly/3WSYouF>)

EXTENSIONS & VARIATIONS

In order to not waste the germinated seeds you can plant them. Follow the steps below.

You will need:

- Container
- Potting soil
- water

Steps

1. Moisten the potting soil with water
2. Place the moistened potting soil in the container
3. Make a small dent in the soil
4. Carefully place the germinated seed in the soil
5. Gently cover the roots
6. Water the seed.
7. Place the container in a warm place
8. Continue to water the seedlings and fertilize them as needed.
9. When they are big enough, transplant them into the garden.