

Purpose & SOL

- Students will examine the process of seed starting (germination) and its role within the plant life cycle.
- Science K.9 (c), 1.4 (a), 2.4(b), 3.8 (c), 4.4 (b)

Materials

- Paper towels
- Ziploc bags
- Buckets of water
- Pea seeds or beans
- Example of edible sprouts to be sampled

Engage

- What is seed germination?
- What conditions are necessary for seeds to properly germinate? (water/moisture, heat, growing medium, time)
- What are the first plant parts that develop after the seed has begun to grow? (roots, stem, 1st leaves or cotyledons)
- Discuss with students the benefits of a greenhouse (controlled climate) for seed germination
- Discuss how long it takes seeds to germinate and how different plants grow at different rates
- Discuss with students types of plants that we eat in the seed stage (beans, rice, sunflower or pumpkin seeds) and those we eat as sprouts (alfalfa, mung bean sprouts)

Procedure

1. Give each student a paper towel and demonstrate dipping the paper towel into the water bucket, squeezing the paper towel between their hands to make sure the paper towels aren't soaking wet. It is important to be gentle so the paper towel doesn't rip. Don't wring it out.
2. Once students have moistened their paper towels, have them lay the paper towel flat in front of them.
3. Give each student one seed to place in the middle of the paper towel and then have them fold the paper towel in half so that the seed is in the middle.
4. Give each student a plastic Ziploc bag to place their paper towel in.
5. Have students write their names on the bags with a sharpie.
6. Students will take the bags back to their classroom to tape on a window and observe the seed's growth over the next 7 days.
7. Pass around the edible sprouts for students to try.
8. Discuss with students to connection between the sprouts that they're eating and the seed that they just planted.
9. Sprouts are high in energy, vitamins, minerals, and protein, ask students why they think sprouts might be so densely packed with nutrients? Hint: What is the plant doing when it is in the sprouting stage?

Classroom Extension

Have students continue to observe their seeds in the plastic bags, and journal (writing and/or drawing) about the changes they observe.

