

Pea Planting and Plant Growth

THE BIG IDEA

We will discover what seeds need to germinate, sort seeds and plant sugar snap peas.

MATERIALS

- “In the garden ...” - sign already in the garden
- 1 set of large, laminated sprouting bean sequence cards or book w/ sprouting seed images
- Pea seeds - one per student
- Wooden painted “pea” sign to put in garden - one for the whole school
- Mixed seeds for kids to sort - approx. 1 large handful per egg carton
- Egg cartons - approx. 15, students can work in pairs
- Wide mouth mason jar with paper towels pressed up against glass- one per class
- 3 large seeds (ie. bean) to put into mason jar



Prior to class:

1. Create a seed sorting station - students will work in pairs, open egg cartons, place a handful of mixed seeds in each lid

GET STARTED

What do you think you already know about what plants need to grow? Most plants come from a seed. A seed is dormant until it feels a 1st grader plant it in the soil. It feels the water and the sun, the seed coat pops off, its root goes down and a sprout pokes its head out of the soil. Then the first leaves grow. This process is called germination.

Using the large sprouting cards, go through the process together. Have students participate. What happens first? *Seed is planted in the soil.* What happens next? *It feels water and sun and pops off its seed coat.* Then what happens? *A root goes down and a sprout goes up.* And last? *The first leaves grow.*

Ask students to act out the germination process. What might this quiet seed observe or notice? How would this seed act when it is ready to germinate? Let's act this process out together.

1. Everyone crouch down and curl into a ball like a little seed. You have on a protective seed coat. You might feel a 1st grader put you in a hole in the soil. It is dark and quiet.
2. Feel the soil and water. Act out your seed coat popping open.
3. Wiggle your toes, those are your roots. They are going to go down and search for water.
4. Put your hands together and aim them up. Your sprout will poke its head out of the soil and grow up toward the sun.
5. Let your arms fall open as your leaves soak up the sun.

GET TO WORK

Work in two groups (approx. 15 minutes each)

1. Planting Peas

- Things that matter can go beyond you and me. We have some seeds to plant today. How should we act to show these seeds we care about them?
- Walk to the garden bed. Have students gather around the bed with their tippy toes just touching the bottom boards of the garden bed. Model planting by poking your finger in the ground and putting one seed in the hole and covering it up.
- Put one seed in each student's hand. Have students show you one finger. Poke that finger into the soil and plant the seed. Whisper some kind words to the seeds so that they know they matter. Put the pea sign in the ground.

2. Seed Sorting

- Working in pairs, use the varieties of dried seeds and carefully sort them in ways you see fit into the egg crate. Use words like larger and smaller, rough and smooth, striped and solid to describe how seeds are similar and different.
- Be prepared to describe your pattern of sorting.
- Share your ideas about why some seeds might be larger or smooth or have different colors.

WRAP IT UP

We are going to put a few seeds in a glass jar and you may take them back to class. We will see them germinate and put their roots down. A seed actually has everything it needs to start growing within the seed, except water. The first thing a seed must do is access a steady supply of water by growing a root.

Put a few bean seeds in the prepared jar with the wet paper towels. Make sure that the seeds are pressed up against the glass so the students can see them. Tell the teacher the jar does not need to be directly in the sun but they should keep the paper towel moist.

Ask the students to predict what the seeds in the jar might do.

Ask the students to track how the seed changes over time.