

Instruct/Explore

Read "The Hero Seed" to the class, pausing occasionally to ask questions and encourage predictions about what might happen next. After reading, divide the class into small groups of 3-4 students.

Give each group a set of plant growth sequence cards and plant part labels. Explain, "These cards show different stages of how a hemp plant grows. Can you put them in order from the beginning to the end?"

Allow groups to discuss and arrange their cards. As they work, circulate and ask guiding questions:

- "What do you think happens first when a seed starts to grow?"
- "How does the plant change as it gets bigger?"
- "What parts of the plant can you see in each picture?"

Once groups have arranged their cards, have them place the plant part labels (roots, stem, leaves, flower) on the appropriate cards. Encourage students to explain their choices.

Next, introduce a simple experiment to observe seed germination. Give each group a clear plastic cup, some damp paper towels, and a few seeds.

Guide them through these steps:

- Line the cup with damp paper towels.
- Place 2-3 seeds between the paper towel and the cup's side.
- Put the cup in a warm, sunny spot.

Ask students to predict what will happen to the seeds. Have them draw their predictions on a piece of paper.

Explain that over the next few days, they'll observe the seeds and record any changes they see.

Encourage them to think about:

- What the seed might need to start growing
- How the seed will change as it grows
- What parts of the plant they might see first

To conclude the exploration, gather the class and ask each group to share how they arranged their sequence cards and why. Discuss any differences between groups' arrangements and guide students towards understanding the correct sequence of plant growth.

Explain

Gather the class and use a large poster or whiteboard to draw a simple diagram of the hemp plant's growth stages. As you draw, explain each stage:

- Seed: "The journey begins with a tiny seed. Inside this seed is everything the plant needs to start growing."
- Germination: "When the seed gets water and warmth, it starts to wake up. This is called germination. A small root grows down into the soil to find water and nutrients."
- Seedling: "The plant pushes up through the soil. It grows its first leaves, called cotyledons. These help the plant make food from sunlight."
- True Leaves: "Next, the plant grows its true leaves. These look different from the first leaves and help the plant make even more food."
- Stem Growth: "The stem gets taller and stronger. It helps hold up the leaves and moves water and nutrients through the plant."
- Flowering: "When the plant is grown up, it makes flowers. These flowers will later make new seeds."

Ask students to share what they remember from the story and their card sequencing activity. Encourage them to use words like "first," "next," and "then" to describe the order of events.