

Planting Experiment

Grade Level: K

Season: Winter

Larger IGS Unit: Seeds

Essential Question: What do living things need to survive and grow?

Objective: Students will identify the things that every seed needs to grow.

Materials:

4 Trays

2" seedling pots

Potting soil

Seeds (peas, marigolds)

Watering cans

3 labels: "no water", "no sunlight", "no soil"

Introduction:

Ask students what an "experiment" is. Explain that all scientists do experiments to find out answers to questions they have.

Review what students know about what seeds need to survive.

Ask students if they think a seed could grow with just two of these things? Let's find out!

Activity:

Divide the class into 3 groups. Each group has a seeding tray.

Hand out one seed per students. Ask students to observe the seed.

Have they seen this seed before? What are the colors they see? What are the shapes they see? What kind of seed do they think it is? What might it turn into?

Review the 3 things that this seed needs to survive: water, soil, sunlight

Group #1 is the "no water" group.

Group #2 is the "no soil" group.

Group #3 is the "no sunlight" group.

Ask each group what the two remaining ingredients are.

Each group puts all the ingredients (minus one) into their pots.

- Group #1 first puts soil in their pots. Then they make a small hole with their finger, and carefully place one seed in each pot. (They may have more than one pot each, depending on the size of the class). Then they gently place their tray in a sunny spot.
- Group #2 first places their seeds in each pot. Then they take turns watering each pot. Finally, they gently place their tray in a sunny spot.
- Group #3 first puts soil in their pots. Then they make a small hole with their finger, and carefully place one seed in each pot. Then they take turns

watering each pot. Finally, they take the fourth tray and cover their tray to prevent the sun from shining through. They gently place their tray next to the others.

Wrap up/ Assessment:

Ask students to make a *hypothesis*, as scientists do, about what their tray is going to look like in one week.

If possible, have students draw what they think their tray will look like in one week.

Extensions:

Observations, measuring, tasting (if peas)

Lorax lesson – planting marigolds as Truffula trees

Marigolds for Mother's Day