Learning Objectives

Participants will be able to:
- Make observations and document them
- Identify the parts of a plant and understand how those parts help a plant survive
- Understand and explain the role of pollinators

Next Generation Science Standards

<table>
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<th>LS: Life Science</th>
<th>Kindergarten</th>
<th>Grades 1-2</th>
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<tbody>
<tr>
<td>K-LS1-1</td>
<td>Use observations to describe patterns of what plants and animals (including humans) need to survive</td>
<td>2-LS2-1</td>
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<tr>
<td>K-ESS3-1</td>
<td>Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live</td>
<td>2-LS4-1</td>
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Conducting the Activity

Materials

- Dry seeds such as peas or beans
- Plastic zipper storage bags (small)
- Paper towels
- Water
- Permanent marker
- Tape
- Nature Notebook either printed as a sheet or cut and stapled into a booklet
- Plastic cups
- Soil

Engage

Connect to prior knowledge
- Ask your students about living things and what they need to survive. Is a plant living? How do you know?
- Ask students if they have ever encountered seeds before. Do they know what seeds are for?
- Discuss observation, and what senses we use to make observations
- Discuss the parts of a plant (roots, stems, leaves, flowers, fruits). And how each part is used to help a plant get food and water.
Conducting the Activity

Explore

Hands-on learning
1. The night before you begin the activity, submerge the seeds in water. Leave them in the water overnight, and drain them before beginning the activity.
2. Give each student 1 plastic zipper bag, 1 paper towel, 1 permanent marker, 1 nature notebook, and 5-10 seeds.
3. Have each student write their name on the bag in permanent marker.
4. Dampen the paper towel, fold it, and place it inside the bag.
5. Place the seeds on one side of the paper towel inside of the bag. Lightly press the seeds into the paper towel. Close and seal the bag.
6. Hang the sealed bags in a window using tape and/or string, making sure that the seeds are visible from inside the classroom.
7. On Day 1 of their nature notebook, have the students illustrate what the seeds look like. Label any parts of a plant that they can identify.
8. Have the students make observations daily for 5 days. Each day they should draw what the seeds and sprouts look like, and identify parts of the plant that they see growing.
9. On the fifth day, give each student a plastic cup with soil so that they can plant their seeds. Discuss what plants need in order to survive.
10. Students may bring their seedlings home and place them in a windowsill, or keep them in class to continue to observe the plant growth and development. Both peas and beans can grow flowers and fruits.

NOTES ON ACTIVITY

Evaluate

Summarize, check for understanding, assess
- The nature notebook can assess their observation skills
- Use the supplemental worksheets to enhance the lessons
- Have the students share their observations with each other
- Share any questions the students may have
<table>
<thead>
<tr>
<th>My Nature Notebook</th>
<th>Day 1</th>
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<tr>
<td>Name __________________________</td>
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<table>
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<th>Day 2</th>
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<th>Day 4</th>
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What do plants need?
Color the picture. Plants need water, soil, air and sunlight to grow.
What do plants need to grow?

Color the pictures. Match each picture with the correct word:

- sun
- air
- soil
- water

Name: __________________________

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Label the Parts of a Plant

Word Box
Flower  Fruit
Stem    Leaf  Root
Sort the words into the correct box.

**Plant Parts**

- seeds
- fruit
- stem

**Plant Needs**

- sunlight
- leaves
- flower
- air
- water
- soil
- roots
Pollinators

Pollen is the sticky powder that is inside flowers. Pollen is what helps the plant to make seeds. To make seeds, the pollen needs to move to different parts of the plant or different plants. Birds, bats, butterflies, bees, other animals and wind help to move pollen. They are called pollinators. When pollen moves to different parts of the plant or other plants, pollination happens. Pollination is when more seeds or fruit are produced.

1. What is pollen?

2. Where is pollen found?

3. List 3 pollinators:

4. Why is pollination important?