

Seeds



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Suggested Group Size: Small Group

Objective(s): The children will use their senses to observe, compare and explore dry and soaked lima bean seeds using simple tools.

Activity

Children will observe, compare, and explore a dry lima bean seed and a soaked lima bean seed.

Targeted Florida Early Learning and Developmental Standards for Four-Year-Olds

- VI. Mathematical and Scientific Thinking
 - B. Scientific Inquiry
 - a. Investigation and Inquiry
 - B.a.1. Demonstrates the use of simple tools and equipment for observing and investigating
 - B.a.2. Examines objects and makes comparisons

Materials

- Chart paper to record the children's observations
- Markers and crayons
- Drawing paper for each child
- Two seeds (e.g., one soaked seed and one dry seed) for each child
- A magnifying glass for each child
- Book: *The Tiny Seed* by Eric Carle
- Supplemental Book(s): *Anno's Magic Seeds* by Mitsumasa Anno, *Oh Say Can You Seed?: All About Flowering Plants* by Bonnie Worth, *From Seed to Plant (Rookie Read-About Science)* by Allan Fowler

Procedures

1. Introduce the lesson by giving the children the following background information about seeds:
 - Seeds are alike in many ways. Seeds are different sizes and shapes. They are covered by a thin outer coating called a seed coat. The seed coat protects the seed. The tiny seed has its own food until it is able to make its food in its leaves. The type of seed that we are going to look at today is a lima bean seed.

Procedures (continued)

2. Give each child a soaked lima bean seed and a dry lima bean seed. Explain to the children that one lima bean seed has been soaked overnight in water and the other lima bean seed is dry because it was not soaked in water.
3. Ask the children to place the seeds next to each other and use their senses and magnifying glass to explore the seeds. Write down the children's observations about the dry seed and the soaked seed on the chart paper (e.g., How do the seeds look, smell, feel, sound?).
3. Carefully remove the seed coat.
4. Split the seed in two parts.
5. Look for the embryo in the middle. It may break off or fall out.
6. Ask the children to draw a picture of the seeds on their drawing paper.

Adaptations

- Modify activity when children begin to lose interest.
- Use verbal, visual, and physical cues to help children know what to do.

Extensions

- Shared Writing: Ask the children to pretend that they found a bag of magic beans on the playground. Give each child an opportunity to share what happened after the beans were planted.
- Allow each child to plant a seed that has been soaked in a cup with potting soil or in the garden.

Checking for Understanding

Children will demonstrate their understanding of the lesson by:

- using their senses to observe seeds and describing the differences and similarities
- comparing and describing dry and soaked lima bean seeds
- observing and exploring the lima bean seeds using simple tools.

Related Standards for Four-Year-Olds

- **III. Social and Emotional Development**
 - **A. Self-Regulation**
 - **b. Life/Adaptive**
 - **A.b.1.** Begins to use materials with increasing care and safety
- **IV. Language, Communication, and Emergent Literacy**
 - **C. Vocabulary**
 - **C.1.** Shows an understanding of words and their meanings
 - **F. Emergent Reading**
 - **F.1.** Shows motivation for reading
 - **F.1.a.** Child demonstrates knowledge of verbal conversational rules (e.g., appropriately takes turns, does not interrupt, uses appropriate verbal expressions, and uses appropriate intonation).