

## **ACTIVITY**

### **Learning Goals**

### **Materials Needed**

### **Time Needed**

### **Appropriate Group Size**

## **SPROUT A LIMA BEAN IN THE SUNLIGHT AND SHADE**

**The sun helps the body and plants to grow.**

**Small, clear plastic cups for each child, paper towels, lima beans, water, and pictures of growing plants from magazines.**

**Several days are required for this activity.**

**Three to four in each group with supervision to begin the activity. Whole group, one-on-one, or small groups can formally check and chart growth of plants.**

## **DOING THE ACTIVITY**

1. Inform the students that they will be able to see how seeds grow with the help of sunlight. Show pictures of growing plants and explain that they will be observing plant growth.
2. Prepare some lima beans for sprouting the day before the experiment by soaking them in warm water overnight. Bring the soaked lima beans to class the next day and place three to four lima beans in each of the small, clear plastic cups between two or three small pieces of a moist paper towel. Keep the pieces of paper towel moist throughout the experiment.
3. Ask students to volunteer whose plants will be placed in the sunlight versus the shade, or just select a few students at random for the two options.
4. Place half of the clear plastic cups by the window to expose the lima beans to sunlight. Place the other clear, plastic cups in a very shady or dark area with no direct sunlight.
5. Check the plastic cups each day for growth and to maintain moisture in the paper towels. Use a small amount of water each day to keep the plants moist. On the weekends they may dry out and become limp. Then you can talk about the need for sun and water.
6. Be sure to label each plant with the date planted and the child's name.
7. If all goes well, the lima beans exposed to the sunlight should grow (sprout) sooner than the lima beans placed in the shade.
8. Reinforce that the plants need sunlight and water to grow their best.

## **Comments/Suggestions**

If you have learning centers, this is an ideal activity for the science area. If you have a garden, the three seeds that grow very fast are watercress, peas, and sunflowers.

## **Modifications**

Pinto beans or bean sprouts can be used in place of lima beans. If you have garden, plant the seeds in a sunny area. Place a box over some seeds and leave the other seeds exposed to the sun.

## **Things to talk about**

- The plants in the sun have grown taller and they need more water.
- If the sun is too hot, the plants need extra water or they will wilt and die.
- Sun and water help us grow too. But too much sunlight can make us feel tired and hot like a plant.
- If we had no light, we would be sad and not grow healthy and strong. So we need to go out in the sunlight a little each day and make sure to drink lots of water. We can protect ourselves from too much sunlight by wearing hats and long clothes, using sunscreen, and playing in shaded places.

## **What you can do to extend this activity to other areas**

1. The teacher can measure and chart growth of the plants in each area.
2. Send the plants home and regularly ask the children what is happening with their plants.
3. Dance and movement activity at circle time: the children can pretend they are little seeds in the ground. The sun warms them and they want to see the sunlight. So they grow and grow and grow quick! They need water, etc.!
4. Draw and paint pictures of the plant.

## **HOW WELL DID THE ACTIVITY WORK AND HOW WILL YOU DO IT DIFFERENTLY NEXT TIME?**