

Family Science Activity

Due Date: _____

This activity helps you learn about...

Living Organisms: Plants

- life cycle and basic needs
- living organisms and their unique environments

This activity involves...

Collecting data, communicating, experimenting, formulating a hypothesis, inferring, interpreting data, observing, predicting

Activity duration

Allow approximately 5 days to complete this activity.

What do we need?

From School: 4 lima beans, 2 clear plastic cups, 2 small plastic bags, sand, humus (dark soil mixture, compost), 1-gallon plastic bag, 1 Observation Record

From Home: Water, spoon

What are we doing?

Most plants begin their life cycle as seeds. Plants grow everywhere and in different types of soil. Which type of soil helps lima beans, a type of seed, grow best? In this experiment, your scientist is going to test whether sand or humus (dark soil) is the better soil for growing lima bean plants.

How are we going to do this?

In this activity, you are going to see how plants grow using different soils. You will plant two seeds each in a different type of soil in separate cups.

Day 1 

1. Fill one cup with the sand from one of the bags. Place 2 lima beans in the sand cup. Plant/bury the beans so they can no longer be seen. Plant each seed apart from the other. Make sure not to pack the sand too tightly.
2. Fill the other cup with the humus (dark soil) mixture from the other small bag. Place 2 lima beans in this cup. Plant/bury the beans so they can no longer be seen. Plant each seed apart from the other. Make sure not to pack the humus too tightly.
3. Add water to each cup, using a spoon. Only add enough spoonfuls of water to make the soil moist. Keep the soil moist but not soggy.
4. Place your soil cups in the sunlight inside your home. Keep them there for the rest of the week.
5. Look at each soil cup carefully. Describe what you see in the cups on the Observation Record. Predict which soil condition will be best for the lima beans to grow. Record your hypothesis on the Observation Record.

 **Days 2–5**

1. Collect data on the experiment each day for 5 days. Record what you see in each plant cup each day on your Observation Record. What is happening to the bean in each cup?
2. Check your cups each day and add spoonfuls of water if needed.
3. After completing your Observation Record, discuss the Family Time Questions.
4. Return your Observation Record and packet to school by the date due.

Family Time Questions

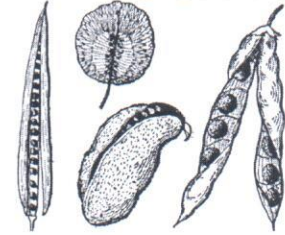
1. In which soil did the seed begin to grow first? Why do you think this seed grew first? Why do you think the other seed did not grow as fast?
2. How are the two types of soil (sand and humus) the same? How are the two types of soil different?
3. What other observations did you make? What other things did you notice?
4. Describe other plants that grow in humus or dark soil. Where are these plants located?
5. Describe other plants that grow in sand. Where are most of these plants located?

Family Notes

- You may need to help your scientist plant the seeds. Keep both cups in a sunny location.
- Remind your scientist to water the seeds when necessary to keep the soil moist.
- On the Observation Record, all responses are acceptable; no answer is right or wrong. For the “I discovered” section, any thoughts are welcome.
- Encourage your scientist to record what she or he observes and thinks about the activity. Words or drawings may be used to record the observations.
- Your scientist may need help to complete the activity and fill out the Observation Record. Please partner with your child on this activity.

Family Science Observation Record

Best for Beans



Name: _____

Date: _____

Hypothesis: I predict that the lima beans in the _____
soil will grow best.

Complete the chart below. Use words and/or drawings.

Date	Seeds in Humus (dark soil mixture)	Seeds in Sand
Day 1 ____/____ Month/Date		
Day 2 ____/____ Month/Date		
Day 3 ____/____ Month/Date		
Day 4 ____/____ Month/Date		
Day 5 ____/____ Month/Date		



I discovered...
