

# Plant Propagation Pre-Trip Activities

To prepare your students for the investigations they will do on site, we recommend doing this activity prior to your visit.

## Plants from Out of this World

### Purpose:

To begin brainstorming how plants can reproduce by vegetative propagation

### Materials:

- Scissors
- Glue/Tape
- Crayons/Markers
- Paper, various types

### Steps:

1. Share the following story with the students.
2. After the story discuss the idea that cutting a plant will produce the exact same plant (clone) of the parent. Do the students think this is possible?
3. Using the supplies have the students draw/illustrate any part of the story incorporating both the original plant and the new growths.

**\*\*News Flash from the Chicago Botanic Garden\*\***

A strange horrid outer space plant has just landed on earth, the likes of which has never been seen before. It is 6 feet tall, it is dark green and brown and has a surface that looks and SMELLS like fish scales. It has lobster claw leaves that seem to grab hold of anything around it. Its roots are firmly planted but its leaves wave in the air as if a storm is brewing.

The National Guard has been called in to solve this problem. Instead of calling a plant expert, they decided to destroy it with a large laser, slicing off its leaves. It was quite a site to see the red laser beams slicing through the leaves of the plant without a sound. What do you think happened when the leaves hit the ground? After several days they returned to find new plants began to develop from the leaves that looked exactly like the original plant.

Instead of calling a plant expert, or botanist, the National Guard had another plan, a bomb that would destroy the plant and anything else in the area. The bomb was dropped and for a second only purplish green smoke could be seen. When the smoke cleared the plant had exploded into a million pieces. Anyone would think that this unidentified growing creature would be gone forever. But no, what happened when the tiny pieces hit the soil, air, and water? That's right they began to grow and what did they look like? An identical copy of the original plant.

Finally someone called in Professor Botany who had traveled to many areas in our galaxy studying different varieties of plants. They asked her if this plant reproduced or started new plants any differently than plants here on earth. What do you think?

## Literature Connections

*Growing Plants (Do It Yourself)* by A. Claybourne, *Potatoes* by S. Johnson

# Plant Propagation Post-Trip Activities

These activities will build upon the learning experiences from the field trip, we recommend doing these activities after your visit.

## Cutting Predictions and Analysis

Purpose:

To make predictions and assess when plants have successfully propagated

Materials:

- Paper
- Pencils
- Pots
- Soil
- Water

Steps:

1. On the day of, or after the field trip, using the baggie terrarium cuttings, paper and pencils, have students create predictions (either written or drawings) showing what they think the plants will look like in 2 days, 4 days, 1 week and 2 weeks.
2. Over time check the baggie terrarium cuttings, and allow students time to detail their actual observations. Their actual observations may be added next to their predictions.
3. Roots have developed when a gentle tug on the cuttings results in a resistance. The roots are rooted in the soil.
4. When there are roots, the cuttings can be transplanted into single 3 inch pots or combined in one larger pot.

## Plants from Out of this World Revisited

Purpose:

To assess what students learned about plant vegetative propagation

Materials:

- Drawings from pre-trip activity

Steps:

1. Share with the students that they will get to show how much they now know about plant propagation.
2. Review the pre-trip story and discuss the possibility that the plant reproduced or started new plants differently than plants here on earth.
3. If time permits, students can write additional sections to the story based on the other plant propagation methods they learned about on their field trip. Alternatively, they could make new drawings showing the propagation methods they learned about during the field trip.

## Literature Connections

*Growing Plants (Do It Yourself)* by A. Claybourne, *Potatoes* by S. Johnson