

SCIENCE·3D

LIFE IN THE TREES

In this packet, sample student answers are provided in **red** and notes to teachers are in **blue**.

In this **Explore Your Backyard** activity, students will explore plant structure and reproduction and plant-animal interactions in a local habitat. This activity is best completed outside during the spring if possible. If you need to go outside in the fall, you could have students make observations of plants. Then have them use online resources to research how the plants are pollinated and disperse seeds. This lesson could be expanded to have students give presentations on their plants. Encourage students to investigate different types of plants so they can compare and contrast how they reproduce. For example, they might compare pine trees, ferns, and flowering plants or wind-dispersed and animal-dispersed seeds.

Before starting this mission, consider having students conduct or review work on the structure and function of flowers.

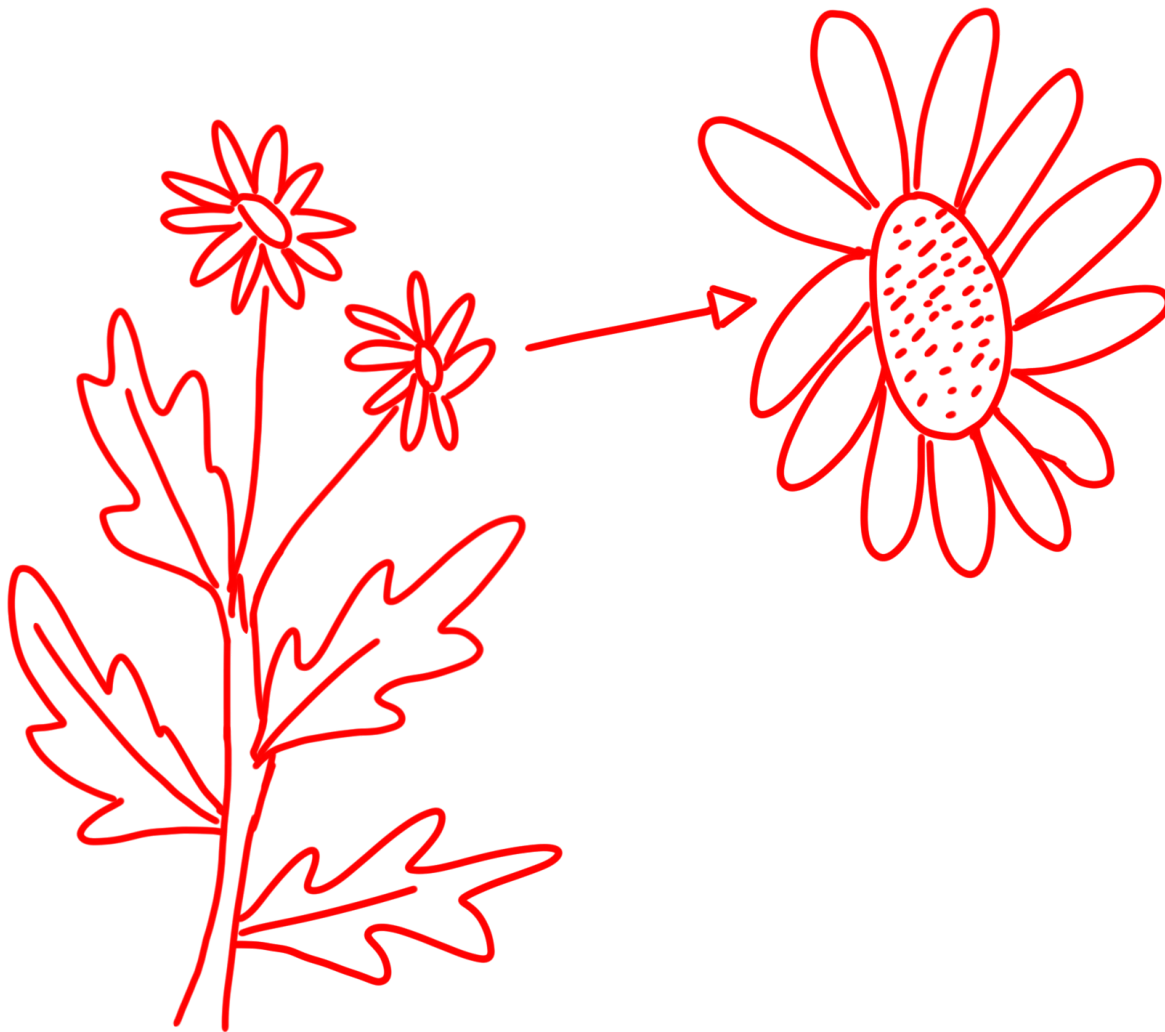


You have learned about how mammals in the canopy pollinate flowers and disperse seeds in Costa Rica. What about the plants in your backyard? How do they reproduce? Your teacher will take you outside or assign you a way to explore plants in your backyard.

Start by observing many different types of plants. Look to see if they have flowers or cones. Check to see if they have fruits or seeds. Observe if there are animals near the plants.

1. Choose a plant that you observed. Then, complete the following steps.

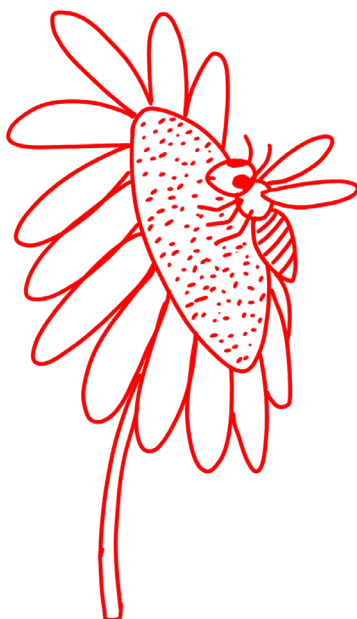
- A. **Draw** a picture of the plant in the space below.
- B. **Draw** a close-up view of any cones, flowers or fruits.



C. List the kinds of any animals you saw interacting with the plant. For each animal, describe what you think it was doing to the plant.

Students might list animals eating leaves, eating fruits, or drinking nectar. They might mention pollination and dispersal, but it is not necessarily expected. An example would be a bee collecting pollen from a flower.

D. **Draw** the animals interacting with the plant in the space below.



E. **Describe** how you think the plant is pollinated. Hint: What animals did you see near the plant? Are there flowers? Are there cones?

Accept reasonable answers.

F. **Describe** how you think the plant disperses its seeds. Hint: If you didn't see animals interacting with the plant, what do the seeds look like? Do the seeds look like they would float in the wind? Do they look like they might stick to an animal? Are there juicy-looking seeds?

Accept reasonable answers.

2. Choose another plant of a different type. Then, complete the following steps.

- A. **Draw** a picture of the plant in the space below.
- B. **Draw** a close-up view of any cones, flowers or fruits.



C. List the kinds of any animals you saw interacting with the plant. For each animal, describe what you think it was doing to the plant.

Students might list animals eating leaves, eating fruits, or drinking nectar. They might mention
pollination and dispersal, but it is not necessarily expected.

D. **Draw** the animals interacting with the plant in the space below.



E. **Describe** how you think the plant is pollinated. Hint: What animals did you see near the plant? Are there flowers? Are there cones?

Accept reasonable answers.

F. **Describe** how you think the plant disperses its seeds. Hint: If you didn't see animals interacting with the plant, what do the seeds look like? Do the seeds look like they would float in the wind? Do they look like they might stick to an animal? Are there juicy-looking seeds?

Accept reasonable answers.

Extend the Lesson: Have students look closely at flowers. Have them make detailed drawings of the flowers and label their parts. Then, have them write the function of each of the flower parts. Have them describe how the parts work together as a system.