



Growing the Future by Teaching Children in the Gardens

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Growing Food for Butterflies Grade One

Lesson Summary

When to use this lesson

Use this lesson in the spring if you want students to plant flowers to attract butterflies.

Standard

S1L1.Students will investigate the characteristics and basic needs of plants and animals.

b. Identify the basic needs of an animal.

1. Air
2. Water
3. Food
4. Shelter

Objective

Students learn that butterflies require a habitat that provides nectar sources for adults.

Materials

- Enough zinnia seeds for each student to plant 2-3
- Enough marigold seeds for each student to plant 2-3
- 2 buckets of water for students to water their plantings
- Cut water bottles to use for watering
- Photos of marigolds and zinnias from the seed collecting folders

Note: If you did the Trapping Energy lesson, use the seedlings if you planted marigold and zinnia seeds.

Estimated Duration

30 minutes

About Butterflies

- **Why do people plant flowers?** We plant flowers in the garden to enjoy their colors, shapes, and scents. We also enjoy watching the animals attracted to them – especially butterflies.
- **Why are butterflies and other insects attracted to flowers?** Insects that feed on nectar are attracted to flowers.
- In early spring, we begin to notice white and yellow butterflies in the gardens. These are Cabbage White and Clouded Sulphur butterflies. They spent the winter in their chrysalis form.
- **Can you tell the difference between moth and a butterfly?** Moths may have more camouflaged colors, but sometimes butterflies do, too. Many moths rest during the day. The best way to tell the difference is by looking at the antenna. Butterflies have antenna that are clubbed at the ends; moths have feathery ends.

- **How do butterflies survive?** They have wings to help them move quickly. Their wing patterns and colors may signal a warning, like the Monarch, or may have camouflaged colors on the underside of wings to help them blend in better when they flap or fold up their wings. Butterflies have a long tongue to insert deep into a flower to find nectar. The tongue is like a straw to slurp up nectar. When the tongue isn't in use, it coils up to fit in the butterfly's small mouth. Butterflies have compound eyes to sense movement around them and to see up, down, forwards, and backwards at the same time. The antenna help pick up scents to find preferred food sources. Their feet help them to taste. The sides of their abdomen have small openings for breathing. Butterflies wings have scales. Some scales are for color and others on male butterflies give off a scent so butterflies of the same species can find each other to mate.

Planting Seeds

- Today we're planting marigold and zinnia seeds, which attract butterflies and other insects that eat nectar.
- Marigolds have a strong scent and come in many shapes and colors like, yellow, white, orange, and red.
- Zinnias also come in many shapes and even more colors than marigolds.
- We plant marigolds and zinnias in the gardens to attract butterflies, to cut bouquets, and to collect their seeds in the fall.
- Have students create a furrow to plant their marigold and zinnia seeds. Wood chips or fingers can be used to make three shallow furrows for seed planting. Furrows are an easy way to plant small seeds that are planted $\frac{1}{4}$ to $\frac{1}{2}$ inch deep.
- The furrow is the correct depth if it is not deeper than the distance from the tip of a student's finger to the base of the nail or the first knuckle.
- Emphasize the importance of getting depth and spacing right so the seeds have the right conditions to germinate and grow.
- Once the furrows have been made, tell students that they will receive seeds to plant. Have students raise the hand that they do not use to write. This is the hand that holds the seeds. They use their writing hand to pick up the seeds to plant. The seeds should be planted one hand width apart. Model this for the students. After planting the students cover the seeds and give the spot a gentle pat. Students water their planted seeds.
- Repeat the steps
 - ✓ Create a furrow using the distance of the tip of their pinky to the first knuckle as the depth.
 - ✓ Hold up the hand they don't write with to receive seeds.
 - ✓ Plant seeds one hand width apart.
 - ✓ Cover and gently pat the planting spot.
 - ✓ Water the planting spot.
- Give each student a pinch of 2-3 of each seed.

Sources

- Parts of a Butterfly, Cambridge Butterfly Conservatory, <https://www.cambridgebutterfly.com/conservatory/butterflies/parts-of-a-butterfly>, 05-07-14.



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In science, we learn that living things interact with their environment to meet their needs to survive.

In the garden, we discussed how butterflies use their body parts to help them meet their survival needs. We planted marigold and zinnia seeds to grow food sources for butterflies and other insects that eat nectar. In the fall, we'll collect seeds from our plants.

Ask your student how butterflies use their body parts. Email granny@grannysgardenschool.org to join us for our next gardening experience.

