



Growing the Future by Teaching Children in the Gardens

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Creating a Butterfly Habitat Grade Three

Lesson Summary

When to use this lesson

Use this lesson in the spring if you are starting a butterfly garden.

Objective

Students learn that butterflies require a habitat that provides nectar sources for adults and host plants for egg laying and caterpillar food.

Standards

S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.

- a. Differentiate between habitats of Georgia (mountains, marsh/swamp, coast, Piedmont, Atlantic Ocean) and the organisms that live there.
- b. Identify features of green plants that allow them to live and thrive in different regions of Georgia.
- c. Identify features of animals that allow them to live and thrive in different regions of Georgia.
- d. Explain what will happen to an organism if the habitat is changed.

Materials

- Precut willow stems 6-8 inches long (see comment in set up section)
- 1 four-inch, square pot for each student
- A plastic bag without holes for each student to take their potted willow home
- Care sheet for each student
- Trowels or extra pots to scoop soil into pots
- Sharpies

Estimated Duration

30 minutes

The Set Up

- In advance set up the following supplies by the soil students will use:
 - ✓ 4-inch square pots
 - ✓ Trowels or extra pots for scooping soil
 - ✓ A supply of cuttings 6-8 inches long. Students can cut the stems if time permits and if the stems seem supple enough for student scissors.
 - ✓ A supply of plastic grocery bags without holes in the bottom for students to take their pot home
 - ✓ Sharpies to write student names on bags

What Do Butterflies Need?

- Today we're rooting a cutting in soil from a plant that attracts butterflies. A cutting is a piece of a plant that is cut off and placed in soil or water for the piece to grow roots.
- The cutting is from a bush called a curly willow. Show the plant photo from the care sheet. Curly willow is a host plant, which means that butterflies lay eggs on this plant for the caterpillars to have the right food source.
- Butterflies do not lay eggs on all plants. Butterflies only lay eggs on the plants their caterpillars like to eat. The adult female butterfly finds the right plant by sight and smell, and uses her feet to taste the plant to be sure it is the right one. Eggs can be laid on a leaf, stem, flower, or seedpod. The butterfly makes a substance that sticks the eggs to the plant. Species of butterflies lay eggs in specific patterns of single eggs, groups of eggs, or stacked eggs. Each butterfly species has eggs with a specific shape, color, and size.
- Caterpillars and the adult butterflies they become do not eat the same food and usually do not eat from different parts of the same plants. Caterpillars using chewing mouthparts to eat leaves or petals on the plant part the butterfly laid the eggs. Butterflies do not have chewing mouthparts. They have a straw-like mouthpart to locate and sip nectar from a flower.
- Each student pots a cutting of willow to take home. We're potting willow since it is a host plant to butterflies like the Tiger Swallowtail, Mourning Cloak, Viceroy, and Red-Spotted Purple. Show the butterfly pictures.

Activity

- Students fill their pot with soil to within about $\frac{1}{2}$ inch from the top or to the ridge where the top of the pot juts out. Show a pot filled to the soil level you want students to copy.
- Show students a willow cutting and remove the leaves from the portion that will be in the soil. Place the willow cutting in the center of your sample pot and show students how to pat the cutting in place gently.
- Repeat the instructions to students.
 - ✓ Collect a pot and fill the pot almost to the top with soil.
 - ✓ Collect a cutting and remove the leaves at the bottom of the cutting.
 - ✓ Insert the cutting in the center of the pot and gently pat in place.
 - ✓ Collect a bag with the student's name.
- Label the bags for students as they come to collect the bag. Loosely tie the bag closed and tell students to carry their plant by the pot and not the bag handles. This will help to keep the pot from tipping and spilling soil.
- Remind students to water their cutting when they get home. The plant should be kept outside.

Sources

- Burris, Judy and Wayne Richards. [The Life Cycles of Butterflies](#). North Adams, MA: Storey Publishing, 2006.
- joyfulbutterfly.com, <http://www.joyfulbutterfly.com/index.html>, 03-09-12.
- Photos of tiger swallowtail, giant swallowtail, spicebush swallowtail, red-spotted purple and viceroy from William Vann EduPic Graphical Resource, 4 Apr 2013 <http://www.edupic.net/leps.htm#paps>.
- Mourning cloak butterfly photo from wanderingnome 5 May 2006. 4 May 2013 <http://www.flickr.com/photos/wanderingnome/141509000/>, noncommercial use permitted with attribution / no derivative works.

Some Local Butterflies Attracted to Curly Willow



Tiger swallowtail – male



Tiger swallowtail – female can be yellow or black



Viceroy



Red-spotted purple



Mourning cloak



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Creating a Butterfly Habitat – Grade One

In school, we learn that animals have basic needs to live and that they often use plants for shelter and food.

Today we potted curly willow cuttings to grow plants that attract butterflies for egg laying. We learned that adult butterflies look for specific plants for laying eggs based on the food preferences for the caterpillars they become. Ask your student what plant part the caterpillar will eat. Curly willow is a host plant for Tiger Swallowtail, Mourning Cloak, Viceroy, and Red-Spotted Purple butterflies.

Caring for the willow cutting your child brought home:

- Remove the potted plant from the bag.
- Place the pot in a shady area outside, and water it. Water periodically, depending on the weather.
- When your cutting has roots in 4 to 6 weeks, it is ready to plant. Choose a spot with plenty of room in a sunny location. A mature willow can reach the size of a large shrub or a small tree and can grow several feet in one year.
- Willows can be pruned down to a few inches to promote new growth and keep the size in check.

Email granny@grannysgardenschool.org to join us for our next gardening experience!



Willow and Sky by Jiri Hodan on PublicDomainPictures.net

<http://www.publicdomainpictures.net/view-image.php?image=17317&picture=willow-and-sky&large=1>