

# How to Raise Your Butterflies

## 1. Getting Started

- Always handle the cup of caterpillars gently.
- Remove the cup from its plastic bag. There should be 3 to 5 caterpillars in the cup, ¼ to 1 inch long. At least 3 should become healthy butterflies.
- Do not remove the lid. The food on the bottom of the cup is all the caterpillars need.
- Allow caterpillars at least 24 hours to become active. They should start growing quickly within a few days.
- Stand the cup upright at all times; place it in a warm spot, out of direct sunlight.
- Caterpillars may suspend themselves in gray-white webbing. This is good!

**Troubleshooting:** If food has shifted from the bottom to the side of the cup (which may happen when caterpillars are delivered in hot weather), turn the cup on its side, food down, and wait 2 to 3 days to see if at least 3 caterpillars are alive. Call 800-698-4438 if you need a replacement.

## 2. Caterpillar to Chrysalis

- When caterpillars crawl to the top of the cup they are ready to pupate.
- Caterpillars will attach to the paper under the lid and hang from their tail ends.
- They will shed their final caterpillar exoskeleton and form a pupal exoskeleton: the chrysalis.
- Within 2 days after all the chrysalises form, remove the lid from the cup, lift the paper gently, and transfer it to the butterfly house. Tape, paper clip or pin the paper securely to an inside wall (chrysalises hanging down and facing in).

**Troubleshooting:** If a chrysalis detaches from the paper, roll it gently out of the cup onto a small piece of paper towel on the floor of your house. Position the chrysalis so that the emerging butterfly can easily crawl onto a wall of the butterfly house.

## 3. Butterflies!

- Butterflies will emerge from chrysalises in approximately 7 to 10 days.
- It will take them an hour or two to dry off and stretch their wings.
- After wings harden, butterflies are ready to fly. Release them now or feed them.
- Nectar: 1 teaspoon sugar dissolved with ½ cup tepid water in a small cup. Roll a 5" x 7" piece of paper towel to make a wick long enough to hang over the edge of the cup.
- You may also feed with fresh fruit. Slices of orange or watermelon are best.

- Butterflies can live as long as a month or more indoors, but it's best to release them within a week.

**Troubleshooting:** If a butterfly doesn't emerge completely from its chrysalis, there is—sadly—nothing you can do to help. Carry the chrysalis outside and place it in a bush or other plant. The insect will die a natural death and will probably be eaten by another animal. Remember: caterpillars and butterflies are important parts of your local food web.

#### 4. Release

- Celebrate! Share a sweet snack during your afternoon recess and release butterflies as a special gift to the Earth. Outside temperature should be at least 55°.
- Open your butterfly house and allow a butterfly to crawl onto your hand (or a student's).
- The butterfly will borrow heat from your body to warm itself up to 68°. It must be at least this warm to fly.
- If your butterfly is reluctant to fly away, help it by gently pushing it onto a bush or other plant.
- Repeat with remaining butterflies.
- Your butterflies may live all summer and well into the autumn.

#### Good Things to Know

- FRAS—the little balls that appear all over the cup—is caterpillar excrement.
- Caterpillars shed their EXOSKELETONS several times. You may see small black balls of exoskeleton in the cup or attached to the end of the chrysalis.
- WEB is sticky and dense. It helps caterpillars hang onto leaves in windy or wet weather and protects them from predators.
- The chrysalis may QUIVER or TREMBLE. This discourages predators.
- MECONIUM is the reddish fluid that butterflies expel when they emerge from their chrysalises. It's a waste product left over from metamorphosis.
- If you have both males and females, females may lay EGGS before you release them. If eggs hatch, you might want to try feeding the caterpillars thistle, parsley, or hollyhock leaves.

#### Educational Activities

- Encourage students to look at caterpillars several times every day.
- It's OK to handle the cup, but always be gentle. Don't shake the cup! Keep it upright.
- Can you identify caterpillar body parts (head, mouth, legs, prolegs)?
- Can you tell them apart? Do they look different day to day? How?
- Can you figure out a way to measure their lengths?
- Can you estimate how long they are and how much they grow day to day?