

# BUTTERFLY TIP SHEET

## STARTING THE PROGRAM

- It will take approximately 4 weeks to transform from larvae to butterfly.
- Each larva is housed in its own little container.
- Keep the lids on at all times (until chrysalis is formed).
- Make sure that the containers are standing upright at all times. (DO NOT TURN UPSIDE DOWN)
- Keep the containers out of the sunlight, and also out of the path of air vents.
- The suggested room temperature is 68° to 75°.
- Each container has enough food and air for the larvae, until it forms its chrysalis.



## FORMING CHRYSALIDES

- The larvae will grow to be about 1 inch long and look like a fuzzy black caterpillar.
- In 7-10 days depending on the temperature, the larvae should form a chrysalis. (Faster in warm weather, slower in cool)
- The larvae will attach itself to the lid of the container by its tail and hang upside down for about 24 hours. During this time the larvae will start to spin its chrysalis.

## AFTER CHRYSALIS FORMATION

- Once the chrysalis has formed, it should take another 7-10 days for the Painted Lady Butterfly to emerge. (Again this depends on the weather)
- After the chrysalides have been hanging in the container for 2-3 days, the teacher will GENTLY remove the lid with the chrysalis attached, and then tape it on one of the lower branches, or to the base of the branch. You can also attach the lid to the cage by using a binder clip or Velcro, attaching it on the outside of the cage.
- Please do not cut the screen of the cage. The cage opens simply by lifting up the bottom of the cage and sliding your hand in the gap.
- If the chrysalis should happen to fall off while moving, gently lay the chrysalis on the floor of the cage.
- Newly hatched butterflies are VERY hungry, prepare a solution of 2 teaspoons sugar to 1 cup water and pour some of the solution into a jar lid with cotton balls placed in it. (The cotton balls give the butterflies something to stand on.) A slice of an orange is also a nice treat for the butterflies.
- Your butterflies will do great in the cage for up to 2 weeks. When you are ready to release them, find a nice grassy spot, and let them go in the great outdoors!



## FINISHING UP THE PROGRAM

- After you have released the butterflies make sure to wipe down the cage, and remove the lids and chrysalis shells.

•Please have the kit in your school office by 9:00 a.m. on the day requested. Be sure to return all the materials in the packet.



## FREQUENTLY ASKED QUESTIONS



Q: Do the larvae have enough air?

A: Yes, there are small holes around the rim of the container.

Q: Can I remove the lid and play with the larvae?

A: No, the larvae are packed in a sterile container. By opening the lid, you could introduce bacteria into the nutrient, causing contamination.

Q: I see webs and little green balls in the container, what is this?

A: The webs in a natural habitat are used to keep food; the green balls are what's called "frass" or waste.

Q: If one of the chrysalis fall off the lid when I'm moving it into the cage, will it be all right?

A: Yes, just gently place it on the floor of the cage. It will hatch out just fine there.

Q: My larvae aren't moving around, are they dead?

A: Probably not, they might just be molting, or shedding skin. While they are doing this, you will see very little movement.

Q: Why do I have to remove the chrysalis from the container?

A: There isn't enough room in the container for the butterflies to inflate their wings. They will be very sad looking butterflies and will be crippled.

Q: If my butterfly lays eggs that hatch, what should I do?

A: Try to find some malva leaves for them to eat, and follow the same process that you have done before.

Q: How long does the butterfly cycle take?

A: It takes 7-10 days for the larvae to become chrysalides, and 7-10 days for the butterflies to emerge from the chrysalides at room temperature.

Q: What is the red liquid I see when my butterflies emerge?

A: It is called maconium. It is the leftover coloring from the wing formation, along with the unneeded tissues of the caterpillar.

Q: How long will my butterflies live?

A: Their normal life span is 2-4 weeks.

Q: When should I release my butterflies?

A: Release your butterflies as soon as possible after hatching. They can live for up to two weeks in your cage, but we recommend that you release them on the first nice day that comes along.

Q: Why are the chrysalides shaking?

A: This is a natural instinct to ward off predators.



## PAINTED LADY BUTTERFLY FACTS

Vanessa cardui L. is the Painted Lady Butterflies scientific name.



One Painted Lady Butterfly can lay up to 500 eggs.

The Painted Lady Butterfly is the most widely distributed butterfly in the world.

The Painted Lady Butterfly is cold blooded.

The Painted Lady Butterfly's host plant is a weed called malva.

The Painted Lady Butterfly's life expectancy is 2-4 weeks.

The Painted Lady Butterfly uses their antennae to smell, and their feet to taste with.

The Painted Lady Butterfly uses a tube like tongue called a proboscis to eat with.



Once the Painted Lady Butterfly hatches out of its chrysalis, it will not grow to be any larger.

Adult Painted Lady Butterflies emerge from their chrysalides with small limp wings and huge abdomens.

You may see them climb to hang so that gravity aids them in pumping the fluid into their wings.

The Painted Lady Butterfly may travel 1000 miles in her lifetime.

The Painted Lady Butterfly has 10,000 eyes.

The Painted Lady Butterfly breathes through her abdomen.

Caterpillars have long resting periods of inactivity during the daytime. So don't be surprised if your caterpillars sometimes seem inactive. They're just getting some shuteye! Caterpillars rest during the daytime to avoid being seen by hungry predators. They become more active under the cover of darkness.

## What is the difference between a butterfly and a moth?

Butterflies	Moths
Antennae clubbed	Antennae straight or feathery
Wings not hooked together	Wings hooked together
Wings held vertically over back when at rest	Wings held horizontally or chevron-like with hind wings covered when at rest
Mainly out during the day time	Mainly out at night time
Brightly colored	Dull-colored
Body slender, smooth	Body thick and "furry"



## BUTTERFLY LIST OF VOCABULARY WORDS

**Chrysalis-** The butterfly becomes a chrysalis (also known as a pupa) when the caterpillar sheds its skin for the last time. It no longer resembles a caterpillar, but if you look closely, you can see the outline of the wing veins, abdomen, and sometimes even the proboscis and antennae. Butterflies do not spin cocoons and are sometimes referred to as a naked pupa.

**Instar-** Term used to describe caterpillar growth beginning when the egg hatches and each time the caterpillar sheds its skin. A caterpillar that has just hatched and not yet shed its skin is a first instar caterpillar.

**Larva-** Caterpillar stage of butterfly and moth development. Plural is larvae. All growth takes place in this stage.

**Malva-** A common weed eaten by the Painted Lady Butterfly.

**Metamorphosis-** The process of growth and change that takes place from the egg, larva, and pupa stages, to the adult stage. Lepidoptera are said to undergo “complete” metamorphosis because they go through four distinct stages of growth rather than three that some other insects experience.

**Mimic-** Looking like another animal or object to gain protection from predators, parasites, etc. For example, the perfectly edible Painted Lady Butterfly gains protection from birds by mimicking the Monarch, which most birds avoid because of its toxicity.

**Molt-** The shedding of old, smaller skin by a caterpillar which allows it to increase in size with the new larger skin.

**Pheromone-** A chemical released by some species as a form of communication. Those referred to in my notebook are used to attract a mate.

**Proboscis-** A tube-like tongue used to siphon nectar, and other liquids. When not in use, the proboscis is coiled up under the head.

**Prolegs-** Fleshy, suction cup-like appendages located on the abdomen and rear-end of the caterpillar, which are used to cling to surfaces and aid in their movement.

**Pupa-** Another name for chrysalis- it is the third stage in a butterfly’s of moth’s life cycle after egg and larva (caterpillar). Plural is pupae.