



Live Animal Care Guide

Welcome to Your Live Animal Materials

In this guide you will find the materials and information needed to prepare and care for your Painted Lady butterflies.

SK3.3 Life Cycles in Nature

Anchoring Phenomena:
Life Cycles in Nature

Driving Question:
How do the variations of organisms help them complete their life cycle?

Science Center Support Materials

Bag Y

- 4 – 2’x18” mesh netting
- 1 roll packing tape
- 4 brass fasteners
- 3 paintbrushes

Loose Items

- 1 spray bottle
- 60 – 4oz 2”in plastic cups w/lids

Bag Z

- 20 large coffee filter papers
- 30 plastic spoons
- 2 - 10x12 bags
- 1 - 16 oz. bottle with squirt top
- 1 sponge-sugar

Vendor Provided

- Painted Lady Butterfly eggs, on food media
- 1 bag of powered media (food), 100g bag

Vanessa Cardui – Painted Lady Butterfly Care Guide

IMPORTANT NOTICE

Your live materials will be priority shipped and require immediate opening upon arrival. It is important that you prepare habitats for their arrival accordingly, as leaving them in their shipping packaging for too long could lead to increased stress for the animals.

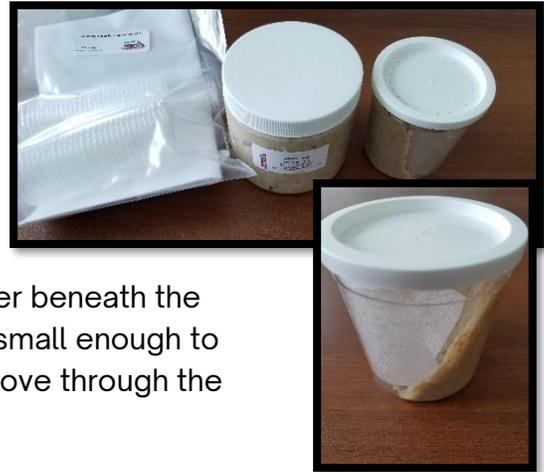
Preparing for Arrival

After you have ordered your live material, you will receive a box labeled Grade 3 Butterfly Support Materials, from the Science Center. The box will contain everything needed to support your live animal in terms of housing. The animal **food** will be supplied by the vendor and will arrive **separately** from the Science Center materials.

Your butterflies will arrive as eggs and will not need much space until they become large caterpillars and butterflies. To prepare for these larger sizes you will need materials found in your support materials box and science kit and **3-4 copy paper boxes or cardboard boxes of similar size.**

Arrival Day

Your butterfly eggs will arrive safely packed in a sealed, but breathable, container. Upon arrival do not delay in removing them from their shipping containers, but leave them in the breathable container. The eggs will hatch soon so it is recommended to place a piece of coffee filter paper beneath the breathable snap lid. When the larva hatch they are small enough to escape through the breathable holes, but cannot move through the breathable coffee filter.



Growth & Care



As students observe the eggs in the container, they will notice they appear as tiny blue specs on the food media. The media is their first source of food once they emerge from the egg. The tiny larva will remain in this container until they are 1cm in length.

1. Prepare 4 oz. cups for each larva. Mix 1 cup (8oz) of water to 100 grams of powder media in a quart or larger size Ziploc plastic bag and knead together. When fully combined it will have the consistency of cookie batter.
2. Once mixed, add 1 spoonful of food to each 4 oz. cup and press it at an angle.
3. Cut out a piece of filter paper slightly larger than the cup. Use a pin to poke air holes into the lid.
4. Gently use a paint brush to move 1 larva into the cup.
5. Place the filter paper over the top. Press the lid on firmly. Over the next 2 weeks the larva will grow. They will produce silky strands to help them move and excrete waste. It is not necessary to remove any of this from the cup.
6. Near the end of the 2 weeks the larva will begin to reside at the top of the cup, then hang upside down in J formation. This is the beginning of the chrysalis formation, the pupa stage. The chrysalis is attached to the coffee filter paper making it easy to move to the butterfly house.



To make the butterfly house, use the copy paper box and lay it on its side.

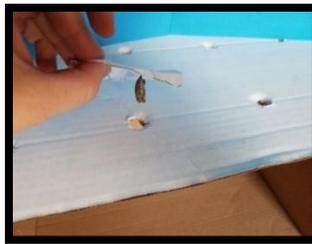
1. Cut a door in the back. Attach a brass fastener to the door so you can open it. For better visibility, we recommend taping paper to the inside top, bottom and sides of the box.



2. Make 6-8 holes at the top of your box that are large enough to fit the chrysalids through, but not large enough for butterflies to escape from.
3. Tape the netting around the front of the box. Secure this tightly so that butterflies do not get stuck in the space between the box and the netting.



4. **Gently lower the chrysalis into the hole and tape in place.** Please keep a few of the lids to use as a “food dish” once the adults emerge.



5. The butterflies emerge about a week later and they may spend several hours or days warming up. You may see them spreading their wings and basking in the sun or vibrating their wings to warm up.
 - a. You will notice red spots around the enclosure when the butterflies begin to emerge. This is left over pigmentation from their wings developing. It does not need to be removed unless this is a distraction to the students. Simply change the paper in the box carefully.
 - b. If the red spots are not dried out, you may notice a fascinating behavior where butterflies gather around damp or muddy areas to sip on mineral-rich water/substances. This is called *puddling*.



6. The adult stage is about 2-3 weeks. During that time, you may see butterflies coupling. Females in captivity rarely lay eggs unless they feel the habitat has everything a larva would need to survive. If you see tiny blue dots appear you may attempt to collect them using the paint brush. Place them in a container with paper towel that has been soaked in 10% sugar water and a coffee filter on top.

If you have any remaining food, you can add some to the container or attempt to find Thistle or Milkweed leaves (Painted Lady Butterflies are partial to Thistle).

Feeding

The butterflies will eat a solution of about 25% sugar water. To prepare this,

1. Mix 25 grams of sugar in 100 mL of water, or ½ Cup (4oz) of sugar to 2 Cups (16oz) of water. You may need to make this solution several times over the course of the kit.
2. To feed them, soak a 1-inch sponge in the solution and place it on top of a previously used lid (3-4 per butterfly house). Slide the sponge and lid through the door. Check the sponges every other day. If they feel hard add more shaken solution to soften. Butterflies also like slices of fruit such as oranges, strawberries or cherries (anything juicy).

a. Please note: Be sure sponges with the sugar water aren't oversaturated. This may result in the butterflies getting their wings wet and the sugar water will cause their wings to become stuck together.

3. Butterflies puddle to get the salt they need. They will puddle in just about anything, but you can soak a sponge in salt water and place it in the butterfly house. Since they puddle in just about anything, the concentration of salt water should not matter. Males tend to puddle more than females. To tell the difference between males and females, look at the abdomen. Males have a more slender abdomen, and females have a slightly more rotund abdomen.



Maintenance of Habitat

Keep your butterfly house in a warm dry area that is lit, **but not in direct sunlight**. Mist the houses once each day to prevent their wings from drying out and to aid digestion.

Releasing

Adult butterflies can live for 2-3 weeks. Butterflies have short life spans in order to prepare the next generation. Butterflies may be kept in their houses for this entire time, students may see coupling or even eggs appear, but they will also notice the butterflies becoming less and less active toward the end of the 3rd week. Painted Lady butterflies are native to North America (and much of the world) and **can be released**. Adults can be released at any time and may even couple and lay eggs after doing so inside. **It is best to release the butterflies on a warm sunny day in an area near flowers** (Painted Lady butterflies prefer thistle for egg laying).

