

**4-H at
HOME**



4-H Pollinator

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POLLINATORS ISSUE

The Butterfly



TABLE OF CONTENTS

Butterflies are Important Pollinators.....	02
A New Butterfly Emerges.....	03
Butterfly Facts.....	04
Chromatography Butterflies.....	05



BUTTERFLIES ARE IMPORTANT POLLINATORS



Butterflies are fascinating creatures, and are vital to the world's ecology. They're also elusive! Butterflies fly quickly, and constantly change their direction. That's why butterfly catchers use nets to try to capture butterflies, so they can observe them. But even if you can't catch a butterfly, don't worry. Watching one fly in the wild and pollinate a flower is even more exciting.

POLLINATORS

Butterflies, just like honeybees, help pollinate flowers. They have long legs, so less pollen gets on their body than on the stubby-legged bees, but butterflies are still very effective pollinators. In fact, butterflies can travel farther distances than the honey bee, which means that they can pollinate a greater area. Butterflies pollinate during the day while flowers are open. Some pollen gets on the butterfly's legs and some on their bodies.

As they go to another flower of the same species, that pollen gets transferred onto that flower.

“

**A BUTTERFLY LIGHTS BESIDE US, LIKE A
SUNBEAM...”**

– AUTHOR UNKNOWN

DID YOU KNOW?

Butterflies have better color perception than the honey bee and humans. They are able to see the color red, which the honey bee cannot. They also are able to see ultraviolet light which helps them see special markings, called nectar guides, that are located on some types of flowers. Butterflies see very well 10 to 12 feet in front of them, and after that their vision becomes blurry.



A NEW BUTTERFLY EMERGES



GETTING READY TO FLY!

During the pupal phase – the phase after a caterpillar encloses itself in a protective sack – the developing butterfly is inside the chrysalis and undergoes some incredible changes to become a butterfly. The body, legs and wings are being formed during that transformation. When the butterfly comes out into the world, its wings are collapsed and shriveled around its body. The next part is really amazing: The butterfly pumps body fluid through its wing veins which allows them to get bigger. After this, the butterfly will rest for a couple hours to allow everything to dry and harden. Then the butterfly is ready for flight.

TIME TO CONNECT THE MOUTH

What would you think if you had to build one of your body parts when you were first born? Strange? Butterflies have to assemble their mouth parts. When they come out of the chrysalis, their mouths are not fully formed. Using their palpi – two long appendages that are next to their proboscis, they begin to assemble the disconnected mouth pieces into a single tongue. You may see the new butterfly curling and uncurling their proboscis over and over to make sure it works.



BUTTERFLY FACTS



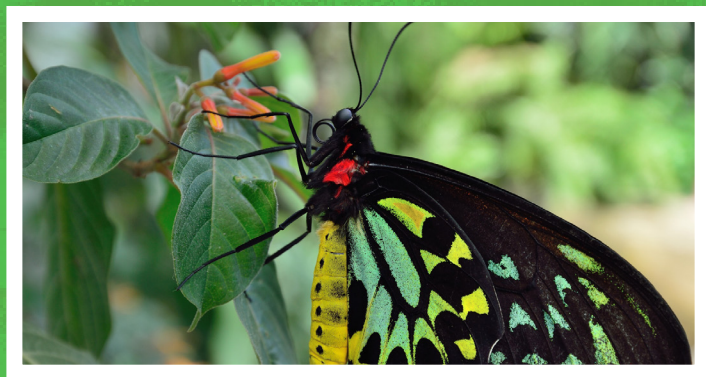
INSIDE A CHRYSALIS

The pupa stage of a moth is called a cocoon, and for the butterfly it is called a chrysalis. This is when the caterpillar stops eating and begins its transformation into a butterfly.



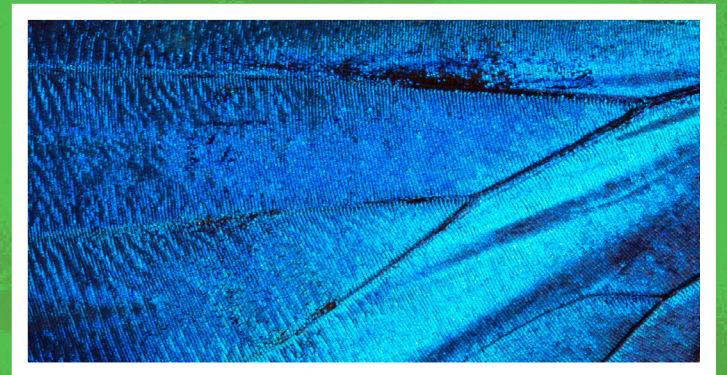
TASTE WITH THEIR FEET

You might think a butterfly would taste with its proboscis, but not so. Butterflies have their taste receptors on their feet! They land on food such as fermenting fruit, and these organs sense the dissolving fruit.



TRANSPARENT WINGS

Butterflies have lots of colors. This is because their wings have tiny scales that reflect light. Underneath these scales the wings are made out of an exoskeleton, called a chitin, which is transparent.



DRINKING NECTAR

The butterfly has a proboscis which slurps up nectar from flowers. As the butterfly drinks, some pollen gets stuck on its hairs. That's how the butterfly inadvertently transfers pollen from one flower to another.

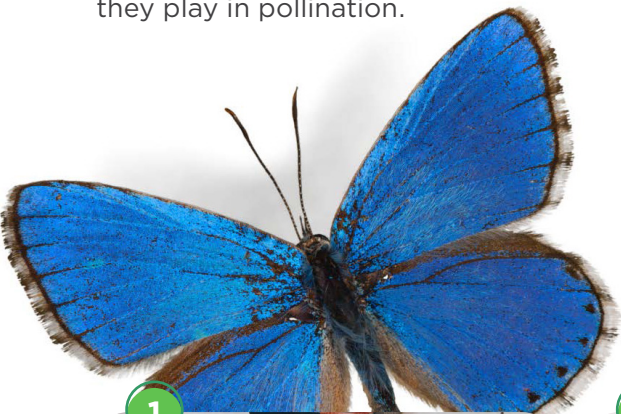


MAKE YOUR OWN

Chromatography Butterflies

ABOUT THE ACTIVITY

Using a coffee filter, food dye and a clothespin, you'll make a fun craft butterfly and learn about the role they play in pollination.



MATERIALS

- Coffee filter
- Food dye or water colored markers
- Spray bottle
- Small clothes pin
- Drop cloth or newspaper to place on the table under the project



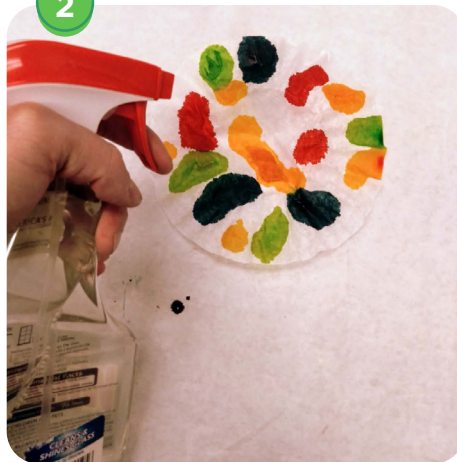
1



STEP 1:

Squeeze a few drops of each color onto the coffee filter. Keep them spaced out in order to let water bleed them.

2



STEP 2:

Spray the water using the spray bottle evenly over the filter and colors. Let it dry.

3



STEP 3:

Scrunch up the coffee filter down the middle and place clothes pin between the two wings of the butterfly.

Source: <https://www.thoughtco.com/fascinating-facts-about-butterflies-1968171>