



# Spring into Science

## BUTTERFLIES

## JOIN US AS WE DISCOVER BUTTERFLIES!

Butterflies are insects. Like all insects, they have three body parts (head, thorax, abdomen), two antennae, six legs, and, like most insects, two sets of wings. Butterflies are known for the diverse colors and patterns of their wings.

Butterflies hatch from eggs, which many lay on the leaves of flowers and other plants. A baby butterfly is called a caterpillar. Caterpillars need to eat a lot of plants to get enough energy to make a chrysalis, or shell, that they will stay in as they transform into an adult butterfly. Adult butterflies spend a lot of time near flowers and other plants because that is where they find their food. Chances are, if you go outside in the springtime, you will see butterflies!

Let's learn more about butterflies as we spring into science!



For more activities visit [samnoblemuseum.ou.edu/samnoblehome](http://samnoblemuseum.ou.edu/samnoblehome)

## LET'S READ

Find a comfortable spot and read about butterflies! Here are some ideas to get you started:

- *Waiting for Wings* by Lois Ehlert
- *Butterflies* by Susan McKeever
- *National Geographic Kids: Butterflies* by Laura Marsh
- *Butterflies* by Karen Shapiro
- *Migrating with the Monarch Butterfly* by Thessaly Catt
- *Butterflies Under the Microscope* by Suzanne Slade

You can download digital copies of these books for free from [openlibrary.org](http://openlibrary.org). Here is how:

1. Go to [openlibrary.org](http://openlibrary.org).
2. Click the blue "sign up" button on the top right to create a free account. You will be sent a confirmation email.
3. Sign in.
4. Type the book title and author into the search bar.
5. Find your book and click the blue "borrow" button.
6. Don't forget to return your book when you are finished reading it!

## KEEP GOING:

Set up an online reading group with some of your friends or family. You can read the same book, then talk about what you learned, or you can read different books and share amazing butterfly facts.

# EXPLORING BUTTERFLIES!

Butterflies are found in many environments, from forests to grasslands to deserts. They live on every continent on Earth except for Antarctica! Sometimes, butterflies live in different places during different times of the year to stay warm and to be able to find food. Monarch butterflies are well known for migrating to Mexico from the United States and Canada in the winter.

Food is one of the most important things in a butterfly's environment and you are likely to find them wherever their food is. Most butterflies get their food from drinking the nectar of flowers. Find out what butterflies look like in your area and which flowers they visit in this exploration activity.

## Before you start, you should have:

- An area outside where you can see butterflies
- Optional: a camera
- Optional: paper and art supplies like markers, colored pencils or crayons

## GET STARTED:

1. Go outside to a park, a field or anywhere else you can see flowers.
2. Look for butterflies!
3. Observe the color of the butterfly and where it lands. Does it land on a certain color flower or a certain type of flower?
4. Optional: take pictures or videos of the different butterflies you see. Try zooming in to see more details of how the butterfly moves or what it looks like.
5. Observe the butterfly for a few minutes or as long as it stays in the area.
  - Does it return to the same flower or move to different flowers?
  - How does it move?
  - How does it behave when other butterflies, insects or animals move close to it?
  - Why do you think that butterflies spend so much time around flowers?
6. Draw or write about the butterflies you saw.
7. Share what you discovered with someone!

## KEEP GOING:

- Write a story about a butterfly.
- Track how many different kinds of butterflies you can find.
- Go outside at different times of the day. Can you see more butterflies at a certain time of day than other times?



# MAKE A COFFEE FILTER BUTTERFLY

Butterflies come in a variety of patterns and colors! Some have bright colors to warn birds and other predators that they don't taste good or are toxic to eat. Other butterflies may have colors or patterns that match the flowers and trees around which they are active. This can help prevent predators from seeing them. Some butterflies even have patterns to make them look like they have large eyes on their wings. This can confuse other animals or scare them off. Get creative with patterns and colors as you make your own butterflies!

**Before you start, you should have:**

- Basket coffee filters (cone filters do not provide the right shape for this activity)
- Washable markers
- Pipe cleaner, clothes pin or twist tie
- Water

## GET STARTED:

1. Color the coffee filter with the washable markers in any pattern you want to. Make sure not to color the entire coffee filter and keep some space white.
2. Dip your fingers in water and sprinkle it onto the colored coffee filter, using just enough water so that the colors start to blend, but the filter isn't completely wet. The color should start to spread and look like tie-dye.
3. Let the coffee filter dry.
4. When the coffee filter is dry, fold it like an accordion:
  - Fold about  $\frac{1}{2}$  inch of the filter in one direction, then flip it over and fold another  $\frac{1}{2}$  inch the other way. When you finish, the filter should look like an accordion or fan.
5. Pinch the center of the filter and secure it with the pipe cleaner, twist tie or clothes pin.
6. Fan out the sides of the coffee filter to make wings. You have a butterfly!

## KEEP GOING:

- Make more butterflies in different colors and patterns. Look up different butterflies online: Can you make a monarch or a tiger swallowtail?
- Use string to tie your butterflies together to make a butterfly decoration to hang.



# LET'S PLAY: HEAD, THORAX, ABDOMEN

Butterflies are insects, which means that they have three body parts, six legs, antennae, compound eyes and wings. The head of a butterfly is the body part where its compound eyes and antennae can be found. Compound eyes have lots of lenses and look kind of like a honeycomb up close. These eyes help them sense light and movement all around them. Butterfly antennae help them feel and sense their surroundings too. The thorax is the middle body part where a butterfly's wings and six legs are located. The abdomen is the body part where many of the butterfly's organs are, including most of the digestive tract, respiratory system and reproductive system.

You can remember the parts of a butterfly with this song and movement activity!

**Before you start, you should have:**

- Space to move
- Optional: a partner

## GET STARTED:

1. Find a place to stand that has room to move.
2. Sing the following song to the tune of "Head, Shoulders, Knees and Toes."
3. Follow the movements to help you remember the parts of a butterfly:
  - Head (point to your head), thorax (point to your stomach), abdomen (put your hands on your hips), abdomen (tap your hips again).
  - Head (point to your head), thorax (point to your stomach), abdomen (put your hands on your hips), abdomen (tap your hips again).
  - Eyes (point to your eyes) and wings (spread your arms and wave them like butterfly wings), antennae too (put your fingers up on your head like antennae), six legs and that's a butterfly for you! (wiggle your arms and legs).

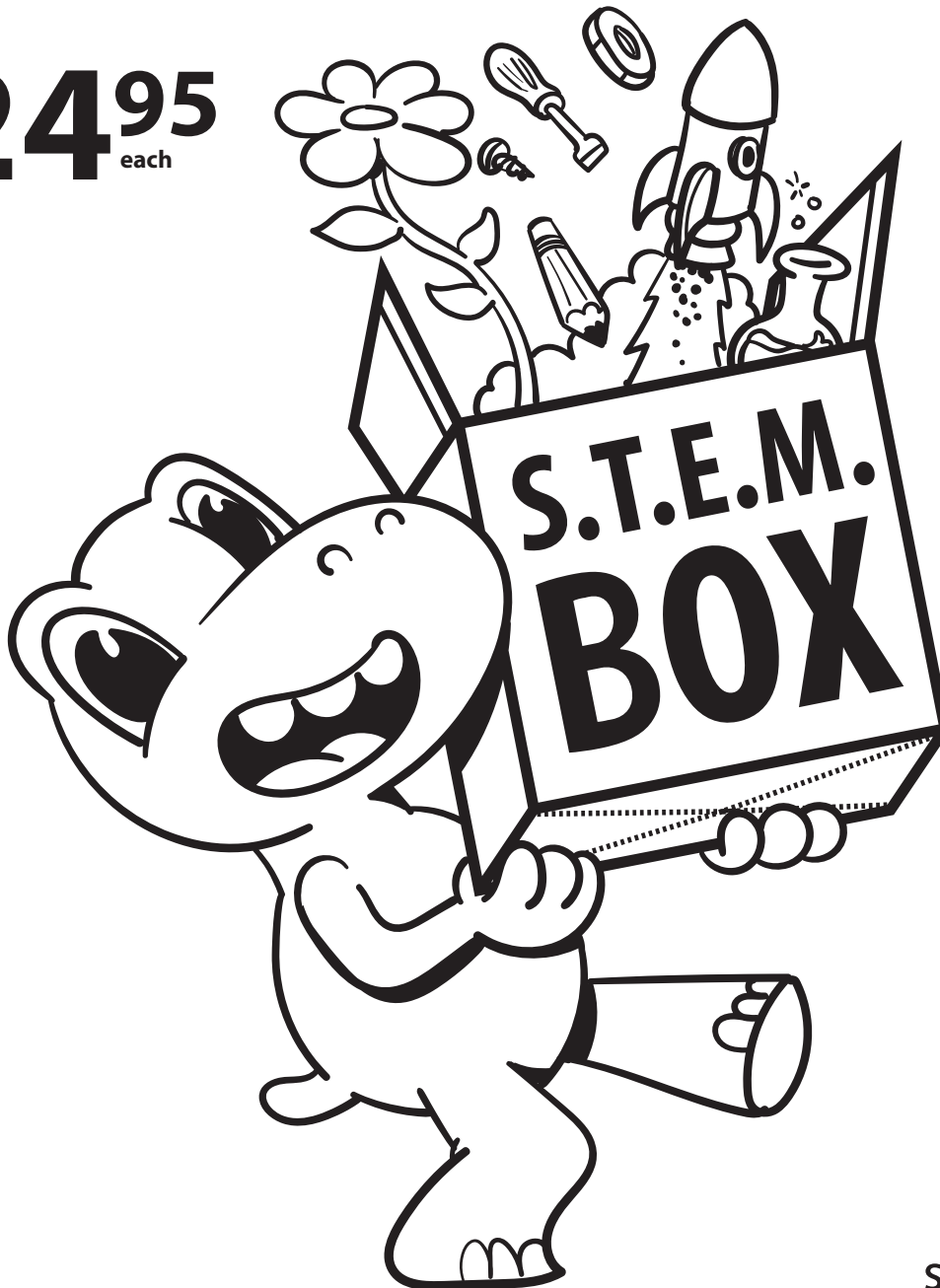
## KEEP GOING:

- Sing the song and do the movements faster and faster. How fast can you sing and move? This is especially fun and silly with a partner!

# *The Sam Noble Museum brings the excitement of science discovery to learners at home with STEM Boxes.*

Each themed box contains step-by-step directions and supplies needed to complete two or more hands-on activities that meet Oklahoma Academic Standards (OAS) and Next Generation Science Standards (NGSS) for grades K to 5.

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