


Color the Butterflies



Parents, try these activities with your young children:

 You can help your child make a colorful butterfly to hang in a window of your home. You will need: *colored tissue paper, scissors, black construction paper, a paintbrush, liquid starch or very thin white glue (mix equal amounts of white glue and water), waxed paper.*

Follow these steps:

1. Cut the tissue paper into 30 2-inch squares. Use many different colors.
2. Fold a piece of black construction paper in half. Then, fold it in half again. Next, trace the shape shown in Figure A onto the paper. Make sure the shape begins and ends on a fold. Help your child cut on the line you have drawn.

Figure A




Figure B



3. Help your child make several cuts of different shapes and sizes in the folded piece of black paper. See Figure B for

ideas, although very young children will probably cut fewer and larger shapes than shown. Then, open the cut paper and have your child describe the lacy butterfly.

4. Place the butterfly on a piece of waxed paper. Have your child use a paintbrush to spread starch or thin white glue over one side of the butterfly. Next, have him or her put squares of tissue all over it. Make sure that all the cutout areas are covered by tissue. Then, have your child put a final coat of starch or glue over the whole butterfly.
5. When the design is dry, lift it off the waxed paper. Invite your child to tape the butterfly to a window for your whole family to enjoy.

 Encourage your child to make up a story based on the pictures on pages 2 and 3 of this issue. Either write down the story as your child tells it or allow him or her to tape it (audio and video recordings both work well).

Caterpillar Cafe

You can open a caterpillar and butterfly restaurant. You will need: *a garden pot, potting soil, seeds.*

Choose seeds from the menus below. All of these seeds will grow into plants that are favorite foods of caterpillars and butterflies. Caterpillars will munch on the leaves, while butterflies will flock to the flowers.

Place the potting soil in the garden pot. Add water to soak the soil. Plant the seeds according to the directions on the seed packages.

Be sure to water the plants when they sprout, but not too much. Water them again each time the soil feels dry. Soon your garden will be full of color and activity.





SAVE THE EARTH: ORGANIC GARDENING

Anne prized her garden. She especially enjoyed the butterflies that would flutter from flower to flower. Then one day, she noticed that something was eating her treasured plants. "Mom! What am I going to do? Something is ruining my garden!"

Anne's mother offered to spray the garden to kill the insects that were eating the plants. Anne agreed that this would be a good idea.

The day after her mother sprayed the garden with a pesticide, a kind of poison, Anne found several dead butterflies. Alarmed, she cried, "Now something is killing the butterflies in my garden!"

What do you think killed the butterflies?

To Anne's surprise, the pesticide used to kill the insects that were eating the plants also killed the butterflies she cherished. After talking about the effects of the poison that they used, Anne and her family came up with a list of alternative choices that they will try in the future. These choices will not harm the environment or the animals that live in it.

Look over Anne's list. Put a check in front of the ones that you and your family could try in your own garden. Add a few ideas of your own.

- | | |
|--|---|
| <input type="checkbox"/> Protect plants by spraying them with soapy water. | <input type="checkbox"/> Keep your yard clean, which will reduce the number of pests. |
| <input type="checkbox"/> Put plants that naturally protect each other together in your garden. | <input type="checkbox"/> Regularly spray your plants with water to wash off insects. |
| <input type="checkbox"/> Introduce beneficial insects into your garden. For example, lady bugs eat other insects that would eat your plants. | <input type="checkbox"/> Use compost instead of fertilizer. |
| | <input type="checkbox"/> Make an organic insect spray (see <i>Next Step</i>). |
| | <input type="checkbox"/> Read a book about organic gardening. |

Next Step: Here is a recipe for an insect spray that will not harm the environment but will keep many pests away from your plants. *You will need: 5 cloves garlic, 1/4 cup crushed red chilies, and 1 quart warm water. Crush the garlic, and then add it and the red chilies to the warm water. Let the mixture brew, like tea, for 24 hours. Spray plants with the solution. You will have to use this insect spray more often than you would a pesticide.*

Ask Joan Embery

Dear Readers,

Thank you for all the cards and letters that you sent me asking questions about butterflies. Because of space, I can only answer a few of your questions each month. Nonetheless, I look forward to hearing from you.



Why do butterflies leave behind a kind of film when you touch them?

Jacey K. from Wayne, Nebraska

The wings, bodies, and legs of butterflies are covered with tiny scales that come off when they are handled. In fact, the name Lepidoptera, which is the insect order to which butterflies belong, comes from the Greek words meaning "scaly wing." When touching a butterfly, you must be very careful not to damage its delicate wings and antennae.

My mom says that there were more butterflies around when she was younger. What can we do to protect butterflies? *Matthew P. from Durango, Colorado*

We live in a complex ecosystem. Anything we do to one part of that system can affect all the other parts. As you know, the actions of people can harm the animals that live around us. Your mother has noticed one of the effects of harmful decisions made by people. But people can also make helpful decisions. For example, the people who live in the town of Pacific Grove, California, value the monarch butterflies so much that they decided to pass a law protecting these yearly visitors. There is a \$500 fine or a six-month jail sentence for killing a monarch. Communities across America can decide to pass laws protecting the monarch and other butterflies. Individuals can take care not to harm these precious animals.

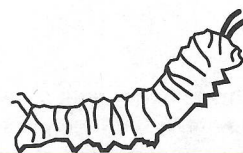
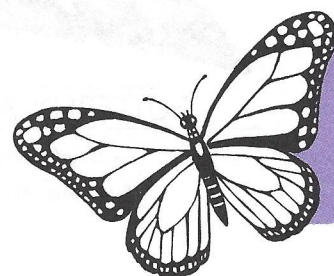
Please send your questions about old world monkeys to:

Ask Joan Embery
Zoobooks®
9820 Willow Creek Road
Suite 300
San Diego, CA 92131

Sincerely,

Joan Embery

Answers: Mirror, Mirror on the Wall: Top left: monarch butterfly; Top right: MOTH; Center: WITH A



Build a Butterfly Farm

You can build a butterfly farm and watch caterpillars change into butterflies. You will need: *a large box, a hammer, a nail, a jar with a lid, scissors, tape, a sheet of clear plastic (try to recycle a clear plastic bag).*

1. Ask an adult to help you poke several holes in the box so that the caterpillars can breathe. Then, have the adult make four large holes in the lid of the jar with the nail. Fill the jar with water and replace the lid.
2. Collect some caterpillars and the parts of the plants that they are on. Stick the stems of the plants through the holes in the jar lid. The stems should be long enough so that the plants will stay in the water. Place the jar inside the box.
3. Cut the sheet of clear plastic so that it is large enough to cover the side of the box. Tape it over the ends of the box so that the caterpillars can't get out, but you can see in.
4. Watch the caterpillars grow each day. Make sure they always have enough food. Be sure to keep the box out of direct sunlight so the caterpillars don't get too hot.

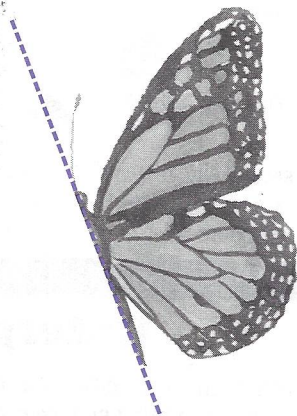
In time, some of the caterpillars will change into a chrysalis. This may take anywhere from a few days to several weeks. As soon as the butterflies emerge, remove the clear plastic. Watch, **but do not touch**, as the butterflies dry and fly away.

Mirror, Mirror on the Wall

Have you ever noticed how the wings of a butterfly appear to be reflections of each other? You can demonstrate this yourself by holding a small mirror along the dotted line on the half of a butterfly immediately below. See how the two sides look identical. Draw the missing half of the butterfly to show its mirror image.

Continue experimenting with mirror images by completing all of the activities on this page. You will need a small mirror with a flat edge and a pencil or felt pen. Place the mirror along the dotted line in each example to see the image and its reflection. Each image will help you learn more about butterflies and reflections.

Answers are on page b.



What animal is the butterfly's closest relative?
(Finish the letters to write the answer.) →

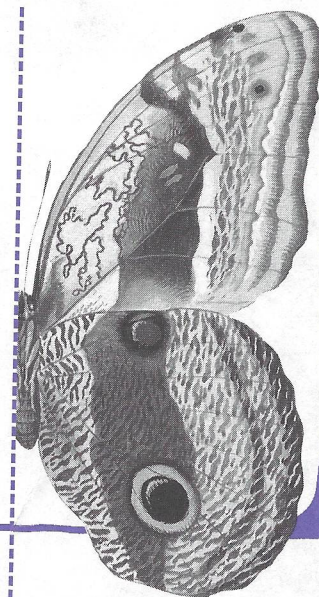
N
C
T
H

What's the best way to hunt a butterfly?
(Find the mirror image of each incomplete letter to write the answer.) ↓

V I T H A C A N E R A

Which butterfly is sometimes mistaken for an owl? →
(For more information about this butterfly, turn to page 11.)

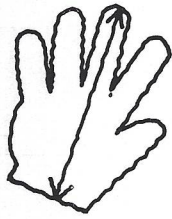
Next Step: You've probably learned about mirror images in science. Perhaps you've even talked about reflections, which are sometimes called flips, in your math class. Another way of making a mirror image is by folding a sheet of paper in half. Open the paper, and place drops of paint on one half of it (use two or three colors). Then, close the paper and press firmly. Immediately open the paper and see what looks like mirror images. In art, this is called *symmetry*.



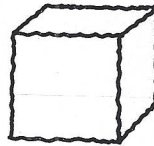
Answer: A Royal Traveler: The butterfly pictured is a monarch. You can learn more about it by reading pages 12 and 13.

Caterpillar Measuring

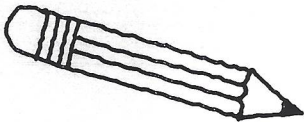
Cut out the caterpillar measuring strip.
Use it to measure things in your classroom.
Write your answers in the boxes.



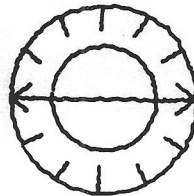
your hand



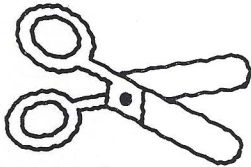
block



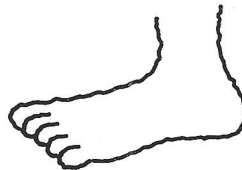
pencil



paper plate



scissors



your foot



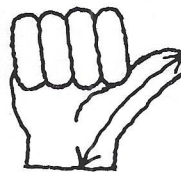
crayon



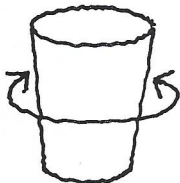
marking pen



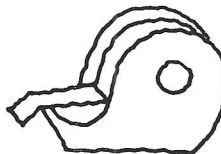
piece of yarn



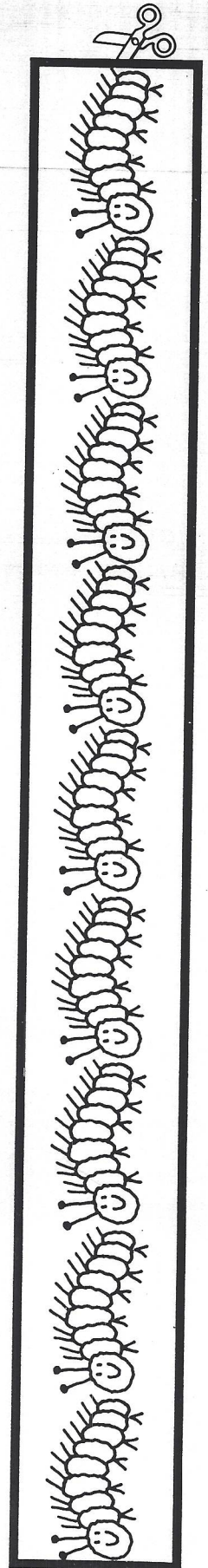
your thumb



paper cup



tape dispenser

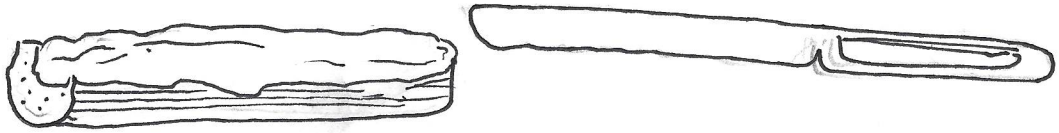


Teacher: Place copies of this page at a learning center along with one each of the items shown above.

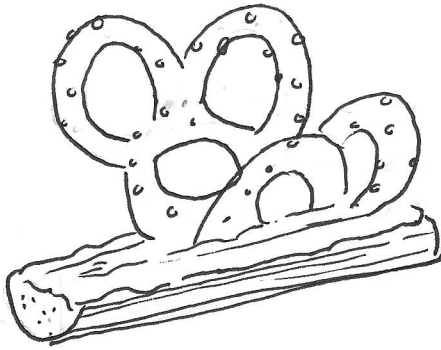
Butterfly Snack

By _____

1. Spread peanut butter on celery stalk.



2. Add 2 pretzels for wings.



3. Add 2 raisins for eyes.

4. Add 2 chow mein noodles for antennae.

