

Tiger Swallowtail Butterfly Lesson Plan

Curriculum: Social Studies, Math, Art

Grade: 2-3

Virginia Standards of Learning: HSS.1.11, MAT.2.21, MAT.3.20, ART.3.4

Objectives: Students will:

- *identify the tiger swallowtail butterfly as the state insect of Virginia*
- *define “symmetry”*
- *use materials and supplies to illustrate knowledge of concepts*

Time Required: 60 minutes

Background Information: (Also printed on the back of the butterfly graphics card.)

Characteristics: The Eastern tiger swallowtail is a large (4.5 inch wingspan) swallowtail butterfly. Adult males are yellow, with four black “tiger stripes” on each fore wing. The trailing edges of the fore and hind wings are black which is also has yellow spots. On the hind wing, close to the abdomen, there are small red and blue spots. Adult females can be either yellow or a darker colored one. The yellow female is similar to the male, except that the hind wings have an area of blue between the black and the main yellow area. In the darker female, most of the yellow areas are replaced with a dark gray or a black. A shadow of the “tiger stripes” can still be seen on the dark females. The dark form is more common in the Southern portions of the butterfly’s range, especially in areas also inhabited by the Pipevine Swallowtail, which it seems to mimic.

Distribution: The Eastern tiger swallowtail is found in the Eastern United States, as far north as southern Vermont, and as far West as extreme Eastern Colorado. It flies from spring through fall. In the southern portions of its range, it flies most of the year because of the warm temperatures.

Food: The Eastern tiger swallowtail caterpillars eat the leaves of a wide variety of trees and shrubs, including cottonwood, tulip tree, sweet bay, Lemon and cherry. Butterflies feed primarily on nectar from flowers. Some also derive nourishment from pollen, tree sap, rotting fruit, dung, and dissolved minerals in wet sand or dirt.

Materials and Resources: tiger swallowtail butterfly graphics card, symmetry examples graphics cards, construction paper, scissors, pencils, paint, paintbrushes, paint dishes, butterfly pattern, smocks (optional), worksheet

Procedure:

1. Start the lesson by asking students to name some of the state symbols of Virginia. Most students should already know the dogwood and the northern cardinal.
2. Hold up the butterfly graphics card, and tell students that the state insect of Virginia is the tiger swallowtail butterfly. Review **Background Information** with students.
3. To introduce this lesson, talk about what “symmetry” means. Hold up and discuss the symmetry graphics cards. Discuss other occurrences of symmetry.
4. Give each student scissors, construction paper, a pencil, paint, paintbrush, and a butterfly pattern. It is suggested that students work in areas where paint dishes can be shared.



5. Have students fold the paper in half and trace the butterfly pattern on one side of the construction paper.
6. With the paper still folded, have students cut out the pattern.
7. Have students open the butterfly, and paint a design on one side of the butterfly. Remind students not to overload the paper with paint.
8. Have students then fold the butterfly in half and gently rub the paper. When they open it up again, the same pattern will be on both sides of the butterfly.
9. Let the butterflies dry and then display them either on a bulletin board or hang them.
10. Pass out the worksheet. Read the directions to the students and ask them to complete the worksheet.

Assessment:

1. Students can correctly identify the tiger swallowtail butterfly when presented with pictures of other types of butterflies.
2. Students can demonstrate knowledge of symmetry by correctly completing the worksheet.

Extension:

1. If you don't want to use paint and would like to challenge students, copy the tiger swallowtail butterfly, and have students color it so that the butterfly is symmetrical.

Source:

Brock, James P. Butterflies of North America. New York: Houghton Mifflin, 2003.





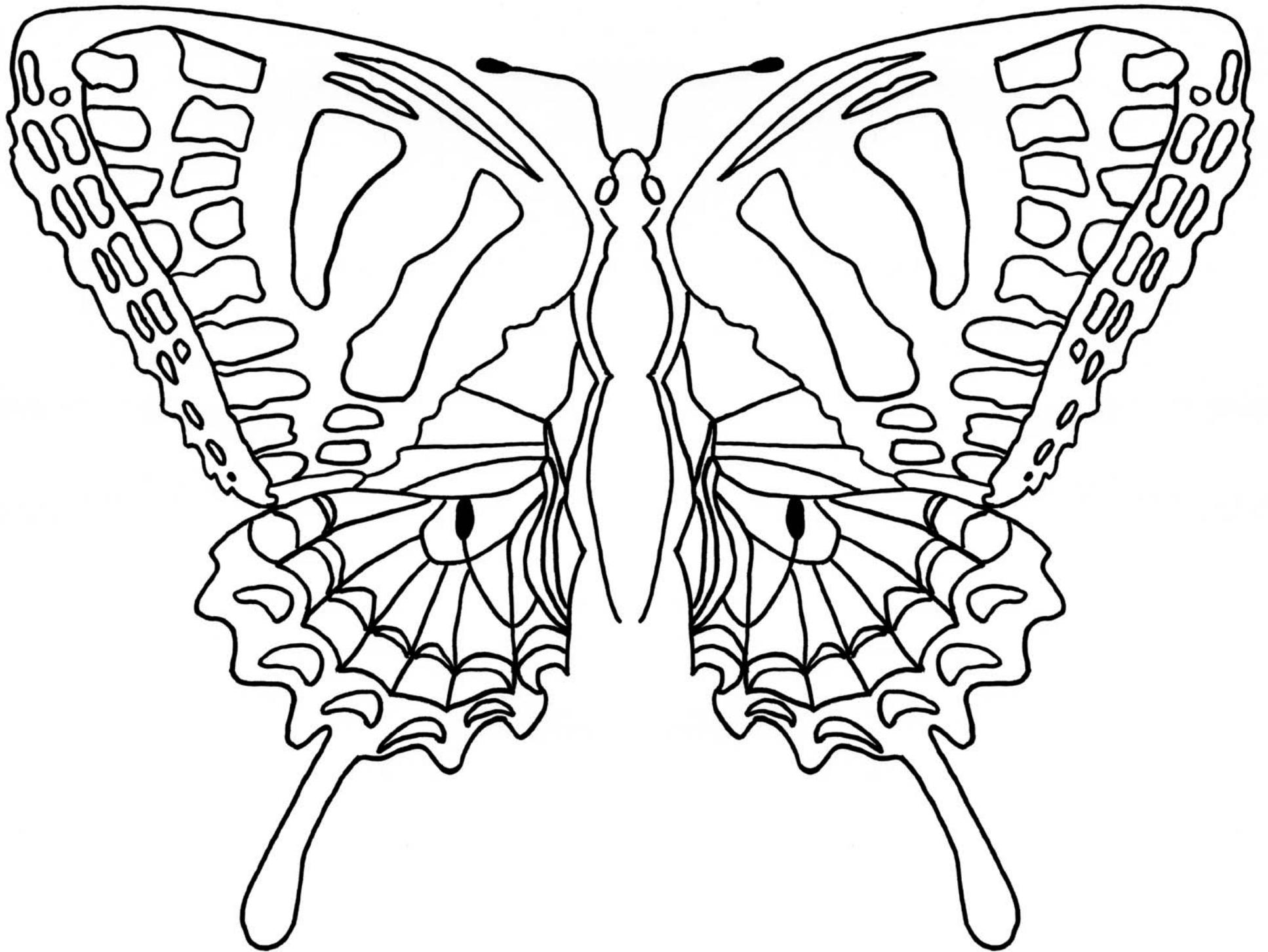
Insect: Tiger Swallowtail Butterfly

The Tiger Swallowtail Butterfly was adopted as the official insect of the Commonwealth by an Act of the 1991 Session of the Virginia General Assembly. The legislation was signed by Governor Douglas Wilder.

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Student Name: _____

Date: _____

Symmetry Worksheet

Directions: Look at each picture below carefully. Circle the pictures that are symmetrical.

