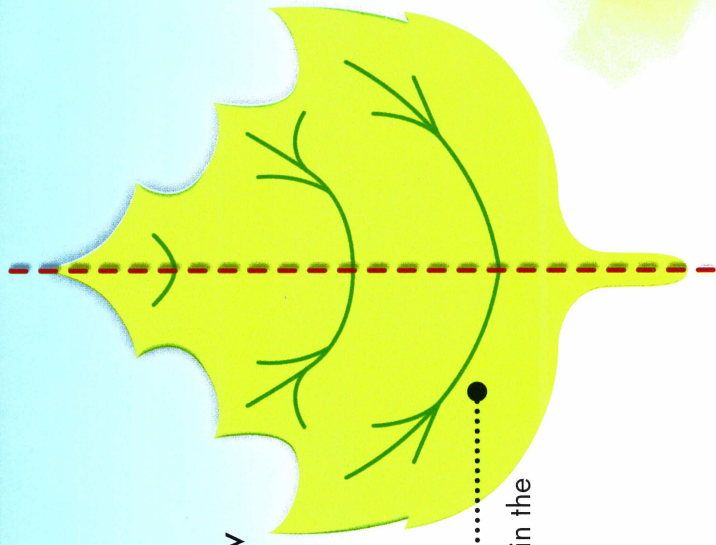
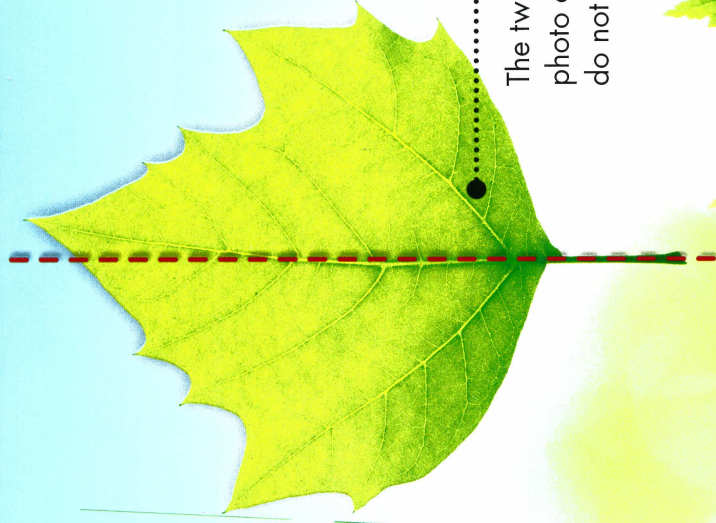


Bilateral Symmetry

A scientific term for line symmetry is **bilateral symmetry**. Drawings can show exact symmetry, but real plants and animals are not perfectly symmetric.



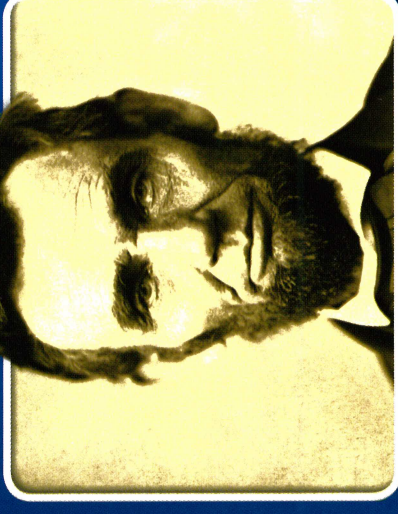
.....
The two halves in the drawing match.



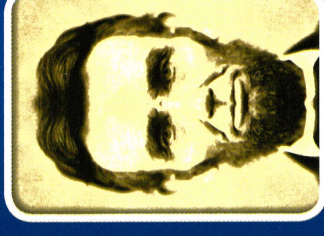
.....
The two halves in the photo of a real leaf do not match exactly.

Abraham Lincoln's Face

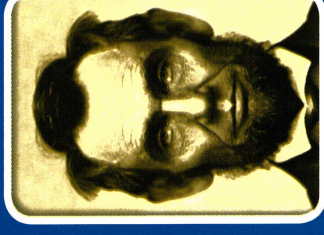
If Abraham Lincoln's face had perfect line symmetry...



he would have to look like this...



or this.



You can see how your own face would look with perfect symmetry. At home, find a photo of your face. Place it flat on a table. Hold a small square mirror upright along the middle of your face. Look in the mirror and the photo to see matching halves of your face.

Create Symmetry Cutouts

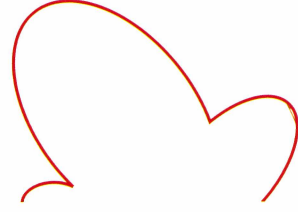
Follow the steps to create examples of bilateral symmetry.

What You Need



1 Fold a sheet of paper in half.

2 Place your paper on your desk so the fold is on the left. Draw the red curve. Cut along the red curve. Cut through both layers of paper. Open up your cutout.



3 What figure did you make in Steps 1 and 2? How many lines of symmetry does it have?

4 Fold another sheet of paper in half. Then fold it in half again.

5 Place your paper so the folds match the diagram below. Draw the blue curve. Cut along the blue curve. Cut through all four layers of paper. Open up your cutout.



6 What figure did you make in Steps 4 and 5? How many lines of symmetry does it have?

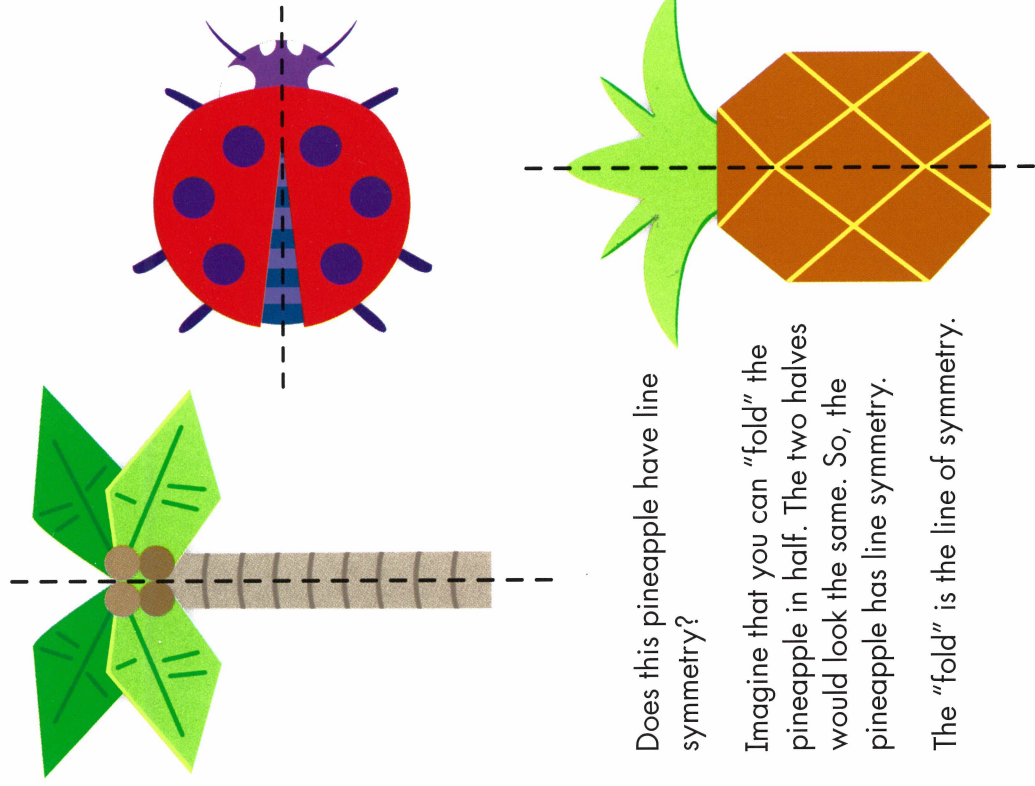
7 Decorate your cutouts if you like.



Looking for Symmetry

There are many examples of line symmetry in nature.

This tree and insect have line symmetry. They each have two halves that look the same.



Does this pineapple have line symmetry?

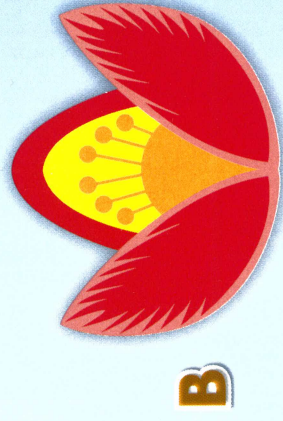
Imagine that you can "fold" the pineapple in half. The two halves would look the same. So, the pineapple has line symmetry.

The "fold" is the line of symmetry.

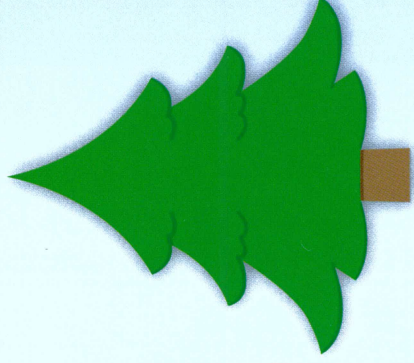
Show What You Know!

Solve these problems. Use tracing paper if you like.

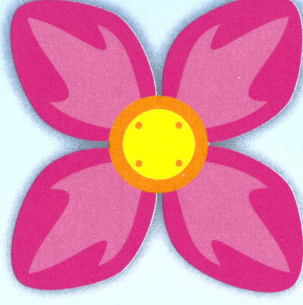
- 1** Copy or trace each of the Figures A to H. Draw the line of symmetry if there is one.
- 2** Draw a plant or animal that has line symmetry. Draw the line of symmetry.
- 3 Think It Through** Look at the figures on this page.
 - a. Which figure does not have line symmetry? Explain why there is no line of symmetry?
 - b. Which figure has more than one line of symmetry? How many lines of symmetry are there?



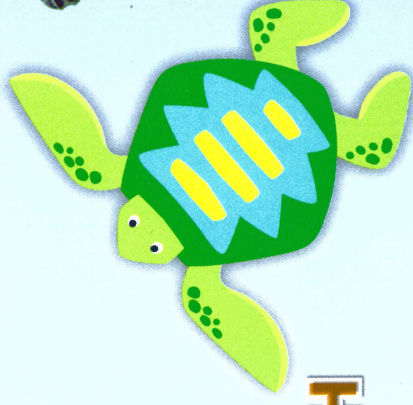
B



D



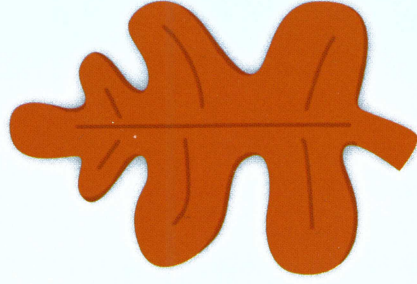
F



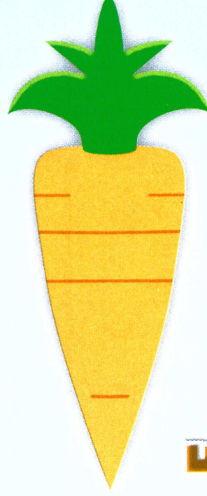
H



A



C



E



G



Did You Know?

A sea turtle lives its entire life in the ocean. The female comes ashore only to lay eggs. During the summer months, there are about 50,000 sea turtles in the waters around Florida.