Teacher's Notes

Section D
Flips and Symmetry

Getting Started

Hold your geoboard in front of you as you divide it in half by wrapping the middle row with a red geoband. Make a simple figure such as a line or square on the left, and then show children its twin on the right. Repeat until children volunteer to make the twin figures.

Then show children a symmetrical figure such as a rectangle on your geoboard. Use a red geoband to divide the figure in half. Show children how the red geoband makes two equal parts out of the figure. Continue with other symmetrical shapes until children volunteer to divide the figures into two equal parts.

Using the Worksheets

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As you progress through the worksheets, first provide the initial figure for children to mirror. Then have children copy the original figure and its twin, and finally make the twin on their own. For Worksheets 31 and 32, some figures will have more than one correct line of symmetry. It is acceptable for children to see and indicate only one line of symmetry in each figure.

Practice

Have children plan twin figures of their own. One child makes a figure and passes it to another child who makes the twin. A third child attaches a red geoband as the divider. Do a similar activity with symmetrical figures.

Wrap-up

Ask children to make the twins of figures you make. Then make symmetrical figures for them to divide into two equal parts.
Copy each shape. Then make its twin.

1.

2.

3.

4.
Copy each shape. Then make and draw its twin.

1. 
2. 
3. 
4. 

Which twins do not touch? ______
Copy each shape. Then make its twin.

1. 

2. 

3. 

4. 

Color the top shapes red. Then color the twins blue.
Copy each shape. Then make and draw its twin.

1. 

2. 

3. 

4. 

5. Which twin is the hardest to make? _________

SECTION D: FLIPS AND SYMMETRY

Flips of Bigger Shapes
Copy each shape.
Then use a geoband to make two equal parts.

1. 

2. 

3. 

4. 

Shade one part of each shape yellow and the other part blue.
Copy each shape. Can you make two equal parts? Circle yes or no.

1. yes
2. yes
3. yes
4. yes
Use two geobands of different colors. Make equal parts two ways.

1. 

2. 

3. 

4. 

5. Which shape is the smallest? __________