FLARE™

Sample Activity Tangram

ORIGO EDUCATION®

Making Shapes

exploring compound shapes

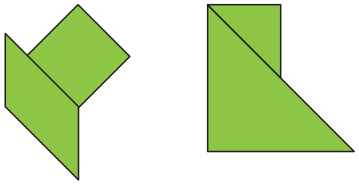
In this activity the students make, identify, and describe compound polygons.

What to Do Before

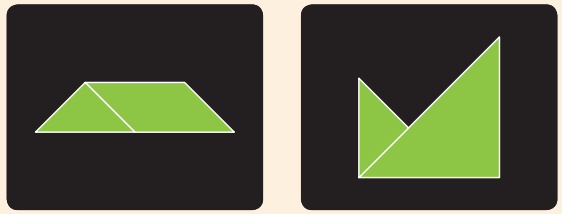
1. Ensure the students have completed Activity 1 and you have their tangram pieces.
2. Select Setup ▸ Break Apart.

What to Do Now

1. Review what the students know about a *polygon*. They should know that a polygon is a closed, two-dimensional shape with three or more straight sides.
2. Give the students their tangram pieces that they made in Activity 1. Point out that each tangram piece is a polygon. Challenge the students to join any two pieces to make a new polygon (see two examples below). The pieces should not overlap.



3. Display the tangram pieces in the Work Area. Invite some students to show their polygon in the Work Area by using  to move and rotate tangram pieces. Have each student use  to trace their shape's outline before the next student shows theirs.
4. Ask the students to describe each polygon. Depending on the age of the students, encourage them to use mathematical terminology. For example, the top-left shape on the next page may be described as a quadrilateral with



one pair of parallel sides, two acute angles, and two obtuse angles. The shape above right may be described as a pentagon with one pair of parallel sides, two right angles, two acute angles, and a reflex angle.

What to Do After

Have the students make polygons with particular numbers of sides.

- Arrange the students into pairs. Assign each pair the task of making a polygon with a particular number of sides. Each pair can use as many tangram pieces from one of their sets as they wish. The pieces should not overlap. (*Note*: The maximum number of sides possible is 23.) Invite pairs to show their polygon in the Work Area (see the example below).