

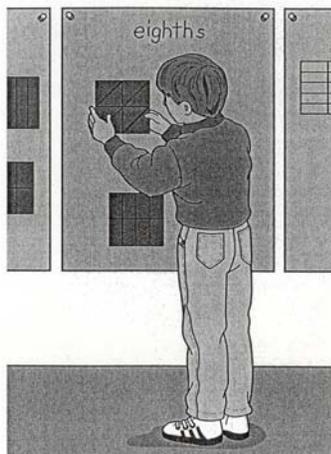
FRACTION POSTERS

WHILE THE STUDENTS ARE WORKING

As the students work on their fraction folding, take time to ask pairs about their thinking.

- ◆ **What fractions have you folded so far? Show me how you folded them.**

For Part 2 of the exploration, as students find new examples for each type of fraction, they should display them on the chart paper which you have labeled and posted around the room.



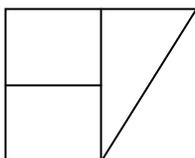
REFLECTING TOGETHER

When the students have finished their first poster, discuss together the students' experiences with folding fractions.

- ◆ **Which fractions were easy to fold? Which fractions did you have difficulty folding?**
- ◆ **Did anyone come up with an easier way to fold fractions that were difficult?**

During Part 2 of the exploration, students will find that there are many different ways to divide squares correctly into fractional parts. Most students will focus on ways where the various parts are congruent, that is, exactly the same size and shape. After the students have worked for a while, draw a square divided like the one below on the chalkboard. Ask the class,

- ◆ **Are these fourths? Why or why not?**



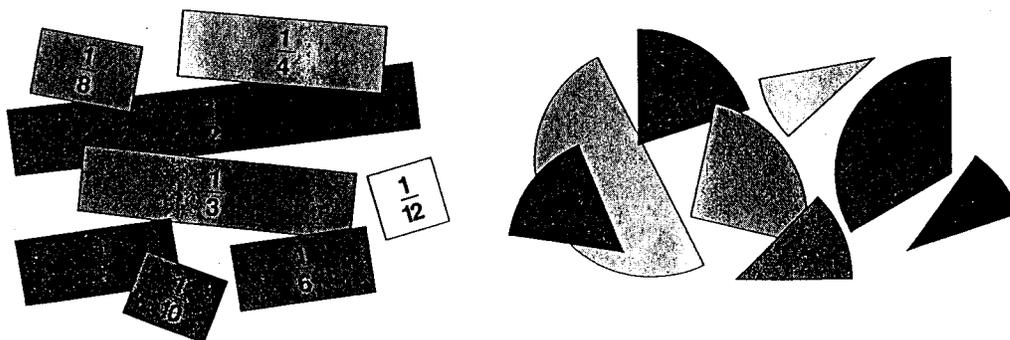
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The students will find that choosing a large object to trace results in a very large fraction poster and that, conversely, if they choose a small object for their shapes, tenths and twelfths will be very difficult to tell apart. Let them make these discoveries on their own. Avoid trying to control the activity so that everything works perfectly. It is much more interesting to see the diverse posters which result from this activity than to have students produce posters that look exactly alike.

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Folding paper to show fractional parts of shapes encourages thinking about equivalence. A good way to fold sixths is to start by folding halves, then fold the halves into thirds to make sixths. In order to use this strategy, students must think about the relationships between halves and thirds and sixths. It is important to have the students go on to trace a different shape and repeat the paper-folding exploration with the same fractions after the class discussion. This gives them a chance to incorporate the ideas of others into their own strategies. Do not expect all students to perfect these thinking strategies today, however.

FRACTION POSTERS

With your partner:

1. Decide whether to use wholes that are circles or wholes that are rectangles for your first Fraction Folding Poster.
2. Find an item in the classroom that is the shape you and your partner chose. On scratch paper, trace and cut out at least eight copies of the shape.
3. Fold and cut your shapes so that you have one to represent each of the fractions found in your fraction set, (halves, thirds, fourths, fifths, sixths, eighths, tenths, and twelfths).
4. When you are satisfied with your paper fractions, trace and cut them out of colored construction paper.
5. Label your construction paper fraction pieces and glue them onto chart paper to make a poster.
6. When your poster is finished, start another one with a different shape.



[Source: Constructing Ideas About Fractions Grades 3-6, Creative Publications]