Problem-Based Interactive Learning

Overview In this activity, children fold paper to show 2 and 4 equal parts.

Focus What does “equal parts” mean? How do you identify equal and unequal parts?

Materials Construction paper (2 sheets per pair), paper for demonstration, marker

Vocabulary equal, halves, fourths

Set the Purpose Today you will learn how to count parts of a whole and decide whether or not they are equal parts.

Connect Have you ever eaten a sandwich that is cut in half, or an apple that is cut into slices? These things are split into parts. What else can be split into parts? (A sheet of paper, my movie ticket)

Pose the Problem How can you fold a sheet of paper into 2 parts of the same size? Observe and facilitate as children fold their paper. Have them share how they folded their paper into two parts of the same size.

Academic Vocabulary Fold a sheet of paper vertically into two equal parts and trace the fold with a marker. Are these parts the same size? [Yes] They are equal parts. How many parts are there? [Two] These two equal parts are called halves. Then reapply the last fold, fold the sheet of paper horizontally into two equal parts, and trace the new fold with a marker. How many parts are there now? [Four] Are these four parts the same size? [Yes] How many parts are there? [Four] These four equal parts are called fourths.

Small-Group Interaction Have children work in pairs to complete page 405. One partner will fold a sheet of paper into two equal parts. Then both partners will draw dashed lines in Item 1 to show how the paper was folded. Once children have finished Item 1, have the other partner fold a different sheet of paper into 4 equal parts. Both children should record the folds using dashed lines in Item 2. As children fold, watch for children who make 2 or 4 folds rather than 2 or 4 parts. Encourage them to count the parts they have made after each fold.

Summarize Once children have completed both items, gather their attention for a class discussion. Have children look at the first sheet of paper they folded, and at their recording in Item 1. How many parts are there? [2] Are the parts the same size? [Yes] Repeat the questions for the second sheet of paper.

Extends Have children fold square or rectangular sheets of paper into 8, 3, and 6 equal parts.
Let’s Share Lunch

1. Two children want to share a small pizza. Draw two ways to split the pizza into halves.

2. Three children want to share a tray of apple crisp. Draw two ways to split the apple crisp into thirds.

3. Four children want to share an apple pie. Draw lines to split the pie into fourths.