Describing Equal Parts of Whole Objects

Quick and Easy Lesson Overview

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Math Background

In the previous lesson, children identified the number of parts that shapes had been divided into and determined if those parts were equal. Although many children have some intuitive ideas about fractions, such as “half of a sandwich,” instruction at the early grades should begin to develop fraction concepts by emphasizing the idea that to talk about fractional parts of a shape, the parts must be equal.

Daily Common Core Review

Daily Common Core Review not available for this lesson. Consider using additional practice found in the Student Edition as review.

1 Daily Common Core Review
Problem-Based Interactive Learning

Overview: In this activity, children describe equal parts of a whole.

Focus: How can you describe equal parts of a whole?

Materials: Index cards (2 per pair), crayons

Set the Purpose: You have learned how to tell if a shape is divided into equal parts. Today you will learn how to describe the parts.

Connect: Have you ever divided something into two parts? What was it? [Possible responses: Yes, a sandwich, a cookie] Have you ever divided something into four parts? What was it? [Possible responses: Yes, a pizza, an apple]

Pose the Problem: Have children work in pairs. Distribute two index cards to each pair. Work with your partner. Fold one card into two equal parts and fold the other card into four equal parts. Observe children's work.

Instruct in Small Steps: On the board, draw the four shapes from page 13. Divide and shade them as shown. Ask children to look at the shape in Item 1 on page 13. Shade this shape to match the one on the board. How many equal parts does the shape have? [2] How many parts are shaded? [1] Write numbers to describe how many parts are shaded. The first number shows the number of shaded parts. The second number shows the total number of parts (the whole). Ask volunteers to read their completed statement for the class. [1 out of 2 equal parts] This sentence tells us that there are 2 equal parts and 1 of them is shaded. Have partners look at the shapes in Items 2 through 4. Have them complete the statements for each item describing the shaded parts. Discuss again how to write the sentences if needed. When each pair has finished, have them exchange pages and check each other's work. Look again at the shape in Item 1. Which of your index cards can you shade to match this shape? [The card folded in two equal parts] Your other card is also a rectangle, so why can't it be used? [It has four equal parts] Have children shade and place the correct card in the space on the worksheet.

Challenge children to draw a rectangle that has 6 equal parts. Ask them to shade 5 of the parts. How can you describe the shaded parts? [5 out of 6 equal parts]
Set the Purpose: Call children's attention to the Visual Learning Bridge at the top of the page. In this lesson, you will learn how to describe equal parts of shapes.

Guided Practice

Remind children that equal parts are the same size.

Exercise 2

Error Intervention

If children circle all of the shapes, then remind them that equal parts must be the same size.

Do you understand? Challenge children to picture, mentally, the rectangle cut into the shapes, so that they could be held and compared.

Reteaching: Draw rectangles, circles, and squares on the board. Have children help you divide them into two and four equal parts.

Guided Practice

1. Circle each shape that shows 1 out of 2 equal parts.

2. Circle each shape that shows 1 out of 4 equal parts.

3. Circle each shape that shows 2 out of 4 equal parts.

Do you understand? Does this shape show 4 equal parts? Explain. Sample answer: No. The parts are different sizes.
3. **Independent Practice**

Children should realize that it doesn't matter which parts they shade, only how many parts they shade. On the board draw four rectangles divided into four equal parts. Invite volunteers to shade one different part on each rectangle. These all show one out of four equal parts shaded.

**Problem Solving**

9. Jane and her friend share a rectangular sandwich. How many parts does each one get? Show equal parts on the picture. Then finish the sentence.

10. Which picture shows the pizza cut into 4 equal parts?

11. Journal Bob and a friend share a granola bar. Draw a picture to show how many parts each child gets. Write why the parts are equal.

Check children's drawings.

**Exercise 9**

- **Make Sense of Problems** Remind children to make sure they understand the information that is provided. How many friends is Jane sharing the sandwich with? [1] Into how many equal parts does Jane need to cut the sandwich? [2]

**Exercise 10**

- **Reason Quantitatively** Encourage children to eliminate wrong answers. Which of the answer choices can you eliminate because they don't show a picture cut into 4 equal slices? [A, B, and D]
Close

**Essential Understanding** A region can be divided into equal-sized parts in different ways. Equal-sized parts of a region have the same area but not necessarily the same shape. In this lesson, you learned that you can divide a whole into equal parts and use words such as two out of four to describe those parts.

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**ASSESSMENT**

Exercises 1 and 2 are each worth 1 point. Use the rubric to score Exercise 3.

**Exercise 3**

**Model with Mathematics** Children describe parts of a whole.

**ELL Suggest a Word List** For children who need extra language support, suggest other words for fraction such as: “equal share” or “same-size parts.”

**Student Samples**

- **3-point answer** Children draw a picture which is divided into 4 equal parts. The first number is 1; the second matches the number of parts.

- **2-point answer** Children draw a picture which is divided into 3 or more parts, but they are unequal. The first number is 1; the second matches the number of parts.

- **1-point answer** Children draw a picture which is divided into 2 or more parts, but they are unequal. The first number is 1; the second does not match the number of parts.

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**Prescription for Differentiated Instruction**

Use children’s work on the Quick Check to prescribe differentiated instruction.

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Differentiated Instruction

Intervention

Folding Equal Parts

Materials Paper plates (1 per child)

- Have children fold a paper plate down the middle to form 2 equal parts. Have them shade one part. Write, "1 of 2 parts is shaded."
- Repeat, having children fold the paper plate down the middle again to form 4 equal parts.
- Ask each child to shade some parts of the paper plate. Discuss and describe the number of parts shaded.

On-Level

Cover Three

Practice

Center Activity

- Follow the instructions and engage in the activity.
- Complete the tasks and share your findings with the class.

Advanced

Cover Three

Practice

Center Activity

- Follow the instructions and engage in the activity.
- Complete the tasks and share your findings with the class.

Leveled Homework

Reteaching Master

Describing Equal Parts of Whole Objects

- This rectangle has 2 equal parts. 1 out of 2 equal parts is shaded.
- 1. Circle the shape that shows 1 out of 2 equal parts shaded.
- 2. Circle the shape that shows 1 out of 4 equal parts shaded.
- 3. Circle the shape that shows 3 out of 4 equal parts shaded.

Practice Master

Describing Equal Parts of Whole Objects

- Color the given number of equal parts in each shape:
  1. 1 out of 4 equal parts
  2. 2 out of 4 equal parts
  3. 3 out of 4 equal parts

Enrichment Master

Granola Bar Math

- Erick, Lee, Andi, and Fig each had a granola bar. All the granola bars were the same size.
- Color the bars to show the given number of equal parts. Then read all the clues before you solve.
- Draw a line from each granola bar to the person who ate it.
- 1. 2 out of 4
- 2. 3 out of 4
- 3. 1 out of 2
- 4. Andi
- 5. Fig

Report Back

To check understanding, ask a child to repeat and complete this sentence: If a circle has 4 equal parts and 2 are shaded, we say _______ out of _______ are shaded. [2; 4].