Math 3 - Act. 05: Fractions Book

Summary

After reading the story *Apple Fractions*, by Jerry Pallotta, students will create their own fractions book.

Main Core Tie

Mathematics Grade 3

Strand: NUMBER AND OPERATIONS - FRACTIONS (3.NF) Standard 3.NF.1

Additional Core Ties

Mathematics Grade 3

Strand: NUMBER AND OPERATIONS - FRACTIONS (3.NF) Standard 3.NF.3

Materials

- Set of Fraction Pie Men
- *Apple Fractions*
  by Jerry Pallotta (Scholastic Inc.)
  Student Product Evaluation Sheet
  Two sheets of copy paper per student
  Set of pattern block pieces
  Colored pencils

Background for Teachers

Through the study of various meanings and models of fractions--how fractions are related to each other and to the unit whole and how they are represented--students can gain facility in comparing fractions often by using benchmarks such as 1/2 or 1.

Intended Learning Outcomes

3. Reason mathematically.
4. Communicate mathematically.

Instructional Procedures

Invitation to Learn

Hand out one piece of the Fraction Pie Men to each participant, either a pie or a person. Tell them to keep it hidden until you tell them to "go." When you say "go" each participant will locate their "fraction match" and stand by that person with their match.

Instructional Procedures

Share the story *Apple Fractions*, by Jerry Pallotta. After reading the story, the students will brainstorm all the fractions referred to in the story.

The teacher will then say that they are going to turn those ideas into a book of their own. The format for the book is called a "no staples booklet."

The students will fold two pieces of copy paper in half the landscape or horizontally.

Then they will measure one inch along the fold, from the outside edge, and put a dot.

The students will cut one of the pages between the two dots (on the inside of the paper along the fold marks).

The students will then cut, on the second sheet, from the outside edge (along the fold) and stop at the dot. This is one inch from the outside edge, leaving the center of the page uncut. The

students will then gently roll the second sheet they cut, and put it halfway through the remaining sheet, with the hole in the middle. The rolled sheet should be allowed to gently unroll. Carefully match all the pages and then fold to make the booklet.

Before students begin to add the mathematics content to their fractions booklet, the criteria for evaluation should be outlined on the product evaluation sheet, so that they will know how they will be evaluated. This will increase the quality of their products.

Page 1 of the booklet should be the title page. Write: *My Book About Fractions*, created by _____ (students name). (Be sure to write with crayon or colored pencil, marker will bleed through).

Page 2 is written on the back of the title page. It is titled, write:

   a. *Fraction Vocabulary*
      : A fraction is a ratio of two numbers that stands for part of something.

   b. *Numerator*
      : the top number in a fraction tells how many equal parts the fraction represents.

   c. *Denominator*
      : the bottom number in a fraction tells how many equal parts are in the whole.

   d. *Equal Parts Make Fractions*
      : there must be equal parts of the whole to make a fraction.
      This page should include a diagram and pictures clarifying the meanings of the terms.

Page 3 – Students write: *Fractions of a Whole*: A fraction can name part of one thing. Fractions equal to 1. *Halves*: two equal parts are halves. Each part is one half. Halves do not all look the same. Think: 1 out of 2 equal parts. Write: 1/2 Say: one half. Example: one whole 1 (For each example the students will trace and color their pattern block pieces).

Page 4 – Students write: *Thirds*: 3 equal parts are thirds. Each part is one third. Think 1 out of 3 equal parts. Write: 1/3. Say: one third. (Draw a line across the page, half way to the bottom of the page.)

Page 4 – Students write: *Sixths*: 6 equal parts are sixths. Each part is one sixth. Think 1 out of 6 equal parts. Write: 1/6. Say: one-sixth.

Page 5 – *Fraction of a Group*: You can use a fraction to name part of a group. Example: Draw three balls. Color 2 red and 1 blue. Think: 2 out of 3 balls are red. Write 2/3. Say: two-thirds.

Page 6 – *Equivalent fractions*: Different fractions can show the same amount. Examples: One half = three sixths. One third = two sixths. Two-thirds equals = four sixths.

Page 7- *Mixed Fractions*: Sometimes you will need to describe a whole and a part. A mixed number has a whole number mixed with a fraction. Fractions greater than 1.

Examples: 1 l/2, 1 1/6, 1 2/3 Write: 1 2/3. Say: one and two thirds.

Page 8 – *Things I've Learned About Fractions*

Authors

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