Focus on Fractions

Summary

These activities are meant to reinforce a thorough introduction to fractions.

Group Size

Small Groups

Materials

- *Frieda Fraction*
  1/2 Transparency
  Pattern Blocks
  Paper Folding Squares
- *Fraction Tree*
- *I've Got your Fraction*

Background for Teachers

This activity is meant to follow a thorough introduction to fractions. Students should be comfortable with the concept of what a fraction is, specifically 1/2, 1/3, 1/4, 1/5, 1/6, 1/8, 1/9, 1/10 & 1/12. Students should be able to describe and show concrete representations of each of these fractions.

Intended Learning Outcomes

1. Use models to add and subtract simple fractions where one single digit denominator is 1,2, or 3 times the other.

Instructional Procedures

Invitation to Learn

Ask students if they are only called by one name. Have students discuss in small groups or share with the whole class different names people call them. Give the example of someone named "Richard". My friend Richard was called "Rich" by his girlfriend, "Rick" by his coach, "Ricky" by his Mom and "Richard" when he was in trouble. A boy named Robert was called a lot of different names, but they weren't bad names, just different names people called him. He was still the very same person even though he was known as Rob, Robby, Bob & Bobby--lots of names for the same person. Well, that's how it is with FREIDA FRACTION. Her friends call her 12, her Mom calls her 2/4, her Dad calls her his little 3/6 and Grandma calls her 4/8. Her teacher calls her 5/10 and on special occasions she is known as 6/12.

Instructional Procedures

Do the paper folding squares activity with students to demonstrate equivalent fractions.
Use *pattern blocks* and *Pattern Block Equivalent Fractions* worksheets.
When students seem to understand basic equivalent fractions, move on to *Fraction Tree* with pattern blocks. You may want to demonstrate with the whole class, them move on to working in small groups or partners and then independently.
Use *I've Got Your Fraction* game for review.

Extensions

Curriculum Extensions/Adaptations/ Integration

Have advanced learners make Festive Fraction Books with examples of other equivalent

fractions.

Have matching game cards with equivalent fractions for students to play with a partner or in a concentration or war game on their own.

Family Connections

Have students use fraction cards to play concentration, fish or war with parents at home.

Have Student create a personal Frieda Fraction and different equivalent fractions. Make it into a poster or a short book.

Assessment Plan

Pre-assess each child's concept and understanding of fractions and equivalent fractions. This could be done in a journal writing experience. When was the first time you remember learning what"1/2" is? Write about it.

Assess student understanding by checking their paper folding experience and *Fraction Tree* activities.

Orally assess a student's understanding of equivalent fractions by having them describe to you how to know if fractions are equal.

Bibliography

Research Basis

Meagher, M., ERIC Digest, June 2002, "Teaching Fractions: New Methods, New Resources"

It doesn't matter if fractions are introduced as counting or as measurements. Teachers often fail to recognize or utilize prefractural knowledge. Preschoolers recognize what "1/2" is. We often take an adult centered approach rather than a child centered approach to teaching children about fractions. Knowledge of fractions falls into three strands: 1) procedural knowledge, 2) factual knowledge and 3) conceptual knowledge.

Caine, R.N. & Caine, G. (1994) "Making Connections: Teaching and the Human Brain"

Brain research demonstrates that the more senses used in instruction, the better learners will be able to remember, retrieve, and connect the information in their memories. By incorporating realistic, interdisciplinary activities that involve more than one of the child's senses, memory pathways become more easily accessed and cross- referenced for future use.

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