Grade Four

Geometry in a Fraction Lesson

Lesson Summary In this lesson, the students will look into basic fractions and basic two dimensional shapes. They will identify the names of the shapes using the appropriate vocabulary and find equal fractional pieces of the shapes.

Major Topic and SOL

Math SOL (2009) 4.2, 4.17

Length of Unit 45 minutes

Student Objectives

In Mathematics the student will be able to:

- Identify two dimensional figures by name
- Represent equivalent fractions that make up a whole

In Language the students will be able to:

- Discussion on how they separated their figure into fractional pieces
- Use correct vocabulary when referring to their work (i.e. one triangle equals 1/3 of a hexagon)

Assessment Evidence

- This lesson is for informal assessment through observation.

Supplies/Materials/Technology

- Document Camera
- Projector
- Pattern Block pieces used for modeling
- Flat shapes used for modeling

Lesson Plan

Motivation & Building Background:

- The students should have prior knowledge of identifying two dimensional figures and representing equivalent fractions as well as breaking simple pictures into equal parts. The students should use information they have already learned to complete this

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assignment. They may use what they know about equal parts to represent their wholes into pieces.

Presentation

- The teacher will begin the lesson by having a discussion about the following:
    - Geometric terms (circle, square, triangle, rectangle, octagon, and pentagon)
    - Basic fraction definition
- The teacher will then break the class into groups of two
    - Each group should receive a container of flat two dimensional figures and ac container of pattern blocks
- The teacher will then explain that the students are to try breaking down the flat shapes into fraction using the pattern blocks.
    - The students will then be asked to illustrate a picture of what they found
        - The teacher will model this first on the document camera using a hexagon and triangles (It takes six triangles to cover a full hexagon; therefore, one triangle is 1/6 of a hexagon

Practice/Application

- The materials will be collected but the students will stay in their pairs as the teacher gives them their second assignment.
- Students are to draw their own flat shape using graph paper.
    - They will then be asked to break that shape into equal fractional pieces and label them as 1/6, 1/5, 1/3… whichever is correct.
        - The teacher will model this on the document camera
- The lesson will be concluded by allowing a few of the students to show their work to their classmates.

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