Obstacle Course

Summary

Students will understand how fractions are partitioned from a whole, and how to place fractions on a number line.

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.2

Time Frame

1 class periods of 70 minutes each

Group Size

Pairs

Life Skills

Thinking & Reasoning

Materials

- paper or graph paper
- pencil
- ruler
- markers

A document camera or chart paper can be used for students to draw and explain their obstacle course in fractions of the whole.

Background for Teachers

Teachers need to have a firm foundation for the building of a fraction. This can be found in the progressions document for fractions.

Student Prior Knowledge

Students should be able to draw a number line and break it evenly into parts of the whole. Students should be able to understand the denominators; 2, 3, 4, 6, & 8 and know that the number denominator stands for the number of parts the whole is broken up into.

Intended Learning Outcomes

Students should be able to explain what fraction of the obstacle course is made from different activities.
Mathematical Practice #1 - Make sense of problems and persevere in solving them.
Mathematical Practice #7 - Look for and make use of structure.

Instructional Procedures

Strategies for Diverse Learners

The struggling learner:
Remind them not to over-think, but follow the simple guidelines. Begin with a simple fraction. If there are two parts of the course how many equal sections would it be broken into? One half of the course needs 3 obstacles. What would you do next?
For the advanced learner - ask: Is there another way to show that? How do you know? What have you discovered? How are they similar? How are they different? What do find difficult or challenging? Describe... Explain.... Tell..... List....

Bibliography

Adapted from: Smith, Margaret Schwan, Victoria Bill, and Elizabeth K. Hughes. "Thinking Through a Lesson Protocol: Successfully Implementing High-Level Tasks." Mathematics Teaching in the Middle School 14 (October 2008): 132-138

Authors

CYNTHIA PRICE
DAVID SMITH