

Math 3 - Act. 06: Building Fractions Game

Summary

Students will understand fractions better by playing this Fraction Building game.

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](#)

Group Size

Pairs

Materials

Game mat

Pattern block pieces

Two dice (digits 1-6)

Additional Resources

Children's Literature Supporting Student Understanding of Fractions:

Fannie in the Kitchen by Deborah Hopkinson (S & S) How Fannie Farmer invented recipes with precise measurements. Fannie Farmer is a mother's helper in the Shaw house, where the daughter gives her the idea of writing down precise instructions for measure and cooking, which eventually became one of the first modern cookbooks.

The Doorbell Rang by Pat Hutchins (Greenwillow Books) Mother has baked a dozen cookies for Victoria and Sam. Just when they have them divided equally, the doorbell rings. The story proceeds with more children coming and the cookies are divided up in a variety of ways.

Fraction Action by Loreen Leedy (Holiday House) Animals look at the different ways that they can divide up food to share with each group. They look at the importance of a fair share.

Gator Pie by Louise Mathews (Sundance Publishing) Alice and Alvin find a pie. They were just about to divide it into half when some more alligators appear. Soon it needs to be divided into 100 pieces. The alligators start a fight over the pie. Alice and Alvin are able to slip away with the pie. They share the pie with each other.

Eating Fractions by Bruce McMillan (Scholastic, Inc.), 1991. This book contains photographs of food items. Children in the book share the food. Children are able to see how the food is divided equally.

Give Me Half! by Stuart J. Murphy (Harper Collins) Two children each have different kinds of food items for lunch. They argue over sharing the food. They finally divide the food and share it.

The Hershey's Fraction Book by Jerry Pallotta (Scholastic, Inc.) The book starts with a whole Hershey's Chocolate Bar. On each page

it shows different fractional amounts after breaking the bar into the 12 pieces. It continues by doing computation with the pieces of candy.

Instructional Procedures

Have students work in pairs.

A high roll of a numbered cube determines the lead player.

The lead player rolls both numbered cubes.

The player thinks of the larger number on the cube as the denominator, and the smaller number as the numerator.

The player builds that fractional amount on the game mat with pattern block pieces.

If a student must use a five as a denominator, it is a lost turn.

The winner is the mathematician that has built the greatest number of hexagons on their game mat.

Extensions

Possible Extensions/Adaptations

Read *Pigs in the Pantry: Fun with Math and Cooking* by Amy Axelrod (Scholastic Inc.)

Say, "Each of you is going to create your own fraction sundae. You must have at least ten scoops of ice-cream".

You can choose any flavors you like.

You must include at least three different kinds of ice-cream.

You must also include a key that is color coded and labeled with the flavors of ice cream.

You must also include a clearly labeled fractional representation for each type of ice-cream on the bowl.

Label your sundae, "Building an Understanding of Fractions by _____ (student name)."

Student will evaluate their work, based on the criteria established prior to making the product.

Teacher will evaluate their work, based on the criteria established prior to making the product.

Add the teacher and student scores together and divide by two for a final grade.

Homework & Family Connections

Make a favorite family recipe together. Have the student write the process and procedures they followed in their own words.

Assessment Plan

Fractional Portions of Words

Authors

[Utah LessonPlans](#)