

Title: Split the Chips

Grade level/content area: 4th Grade Math

Author(s):

Anastashia Pelleiter

Kaya Wilson

Airyona Lightfoot

Date lesson will be taught 11/30:

Source of the lesson:

CONCEPT STATEMENT

Division is the operation of making equal groups or shares and is the inverse of multiplication. A dividend is the number in which the divisor is dividing from. A quotient is the result of a division problem, and the number of times a number is contained in another number. A divisor is a number in which another number is being divided by. This skill is important because it is used in various forms of math later in their school years, including fractions and decimals.

LESSON OBJECTIVES

Students will be able to...

Label each part of the division equation

Use the cookie method to show division

Divide using the traditional method

Check their work using multiplication

VIRGINIA SOL OBJECTIVE(s) ADDRESSED

The student will

c) estimate and determine quotients of whole numbers, with and without remainders

MATERIALS NEEDED (Resources, supplies, and handouts)

Beads (24)

A handout with pictures of cookies (30)

SAFETY CONSIDERATIONS

Students will be instructed to use all materials for their intended use.

ENGAGEMENT	Estimated Time: 10 minutes
Teacher and Student Activity	Probing Questions
<i>Describe the actions of the teacher(s) and students. What will the teacher be doing or saying during this part of the lesson? What will students be doing?</i>	<i>Write a list of probing questions you can ask that correspond to the activity in the left column.</i>
Teacher will write 3 or 4, 2 by 1 multiplication problems on the board	"What product did you get for ___"
Student will have 7 mins to answer the "problems"	"How did you come to this product?"
Teacher will ask for volunteers to raise their hands to answer the questions.	"Which method did you use?"
	"What is the opposite operation of multiplication?"

EXPLORATION	Estimated Time: 20 minutes
Teacher and Student Activity	Probing Questions
Teacher will hand out material, (Handout and bead) and instruct student to not use materials until instructions are given	"What do you think we are about to use the materials for?"
Teacher takes 5 mins to give instructions of the activity, using the board to show an example of what to do.	
Teacher will give the students 10 mins to complete the assignment. If a student finishes early, the teacher will instruct the student to count out 12 beads and repeat the activity.	Does anyone have any questions?
Students will use materials as intended and write their answers in the box of each set of cookies.	
Teacher will ask students to put the beads back into the bag and two of the teachers go around and take the bag of beads.	

Teacher will ask students for the answers to each of the problems in the activity.	

EXPLANATION	Estimated Time: 15
Teacher and Student Activity	Probing Questions
Teacher will define what is division by relating it to one of the cookie problems	"What is division? Divisor? Dividend? Quotient?"
Teacher will write $24 / 2$ on the board with the answer of 12 and label each part of the division problem.	"How do you think this relates to the activity we just did?"
Teacher will relate each part of the activity to the written equation on the board. The total # of beads = the dividends, the cookies are the divisor, and the # of beads on one cookie is the quotient.	"Why do we divide things?"
Teacher will explain how to divide and solve each problem from the activity on the board.	"Do you have any questions?"

ELABORATION	Estimated Time: 5 minute
Teacher and Student Activity	Probing Questions
Teacher will show one of the problems that was solved and explain how to check their work with multiplication.	"How can you check your quotient?"
Teacher will use another problem ($12 * 3$) to show how it relates back to division.	

EVALUATION	Estimated Time: 10 minutes
Teacher and Student Activity	Probing Questions

Teacher will write problems on the board for the exit ticket.	"How does everyone feel about division?"
Students will solve one that uses the cookie method (18/3) and 2 traditional methods (15/5, 21/7) on a piece of paper.	"Does anyone have any last minute questions?"

Attach any SUPPLEMENTARY MATERIALS (handouts, worksheets, data collection tables, assessments, etc.) as part of your lesson plan.

Cookie sheet

Marbles