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Resource ID#: 45560

Primary Type: Lesson Plan

Cookies for All

This lesson allows students to use everyday objects in order to understand equal shares. The lesson uses "The Doorbell Rang" by Pat Hutchins to engage students during the lesson and to make a connection by using literacy in mathematics.

General Information

Subject(s): Mathematics

Grade Level(s): 2

Intended Audience: [Educators](#)

Suggested Technology: Document Camera, Computer for Presenter, Interactive Whiteboard, LCD Projector, Overhead Projector, Adobe Acrobat Reader

Instructional Time: 2 Hour(s)

Resource supports reading in content area: Yes

Freely Available: Yes

Keywords: equal shares, division, equal groups, arrays, children's literature, dividing,

Instructional Component Type(s): [Lesson Plan](#), [Worksheet](#)

Resource Collection: CPALMS Lesson Plan Development Initiative

Attachment

[CookieChart.pdf](#)

Lesson Content

Lesson Plan Template: General Lesson Plan

Learning Objectives: What should students know and be able to do as a result of this lesson?

In this lesson, students will work together to gain some understanding about equal shares and the division concept.

- Students will solve division problems by drawing and manipulating objects into arrays.
- Students will solve division problems by writing a division equation to represent a sharing problem.

Prior Knowledge: What prior knowledge should students have for this lesson?

Students should have an understanding of repeated addition and using arrays to represent repeated addition. (MAFS.2.OA.3.4)

Students should have an understanding of multiplication and using arrays to represent equal groups. (MAFS.3.OA.1.1)

Guiding Questions: What are the guiding questions for this lesson?

How can we show the problem (teacher creates a problem that will show equal shares) using pictures and words?

Can we share 4 cookies with 5 friends so that each friend has an equal share? Why or why not?

What are the different ways we can show 12 objects equally shared by 2, 3, 4, 6, or 12 friends?

Teaching Phase: How will the teacher present the concept or skill to students?

Before the lesson begins, be sure to conduct the Formative Assessment to ensure that students are ready to proceed with learning about the division concept.

1. The lesson is introduced by showing students the front cover of "The Doorbell Rang" by Pat Hutchins. Students are to make predictions about what the story is about, while the teacher will write the predictions on the board.
2. The teacher will then read the story to students, making sure to stop at important points within the story to assess understanding and ask questions.
3. During the reading, the teacher will make notations on the board each time a new group of children enter the kitchen. This will be used to show the equal shares at the end of the reading.
4. After reading the story, the teacher should ask questions to review what happened each time a new group of children came into the kitchen (the amount of cookies for each child changes). They should also be able to understand that as more children entered, the amount of cookies for each child became less.
5. The teacher tells students that they are going to make paper cookies (brown construction paper cut into circles with black dots for the chocolate chips) in order to show with pictures how the changes in the story occur. Teachers will also give students a gray sheet of 8 1/2" by 11" sheet of construction paper to be used as the "cookie sheet" (students will manipulate the cookies on the sheet during each change). By having the students create their own manipulatives, students are given ownership of the activity and will be actively engaged during the lesson.
6. The teacher moves to the board, where the changes were documented during the story, to begin the manipulation of the "cookies". The class will be directed during the guided practice portion of the lesson.

Guided Practice: What activities or exercises will the students complete with teacher guidance?

1. Students will go through the movements of dividing 12 cookies for 2 friends, 12 cookies for 4 friends, 12 cookies for 6 friends, and then 12 cookies for 12 friends. The teacher is walking around to check understanding. This is the moment where the teacher may have to work in a small group with students who are having difficulty.
2. The teacher will go back to the board to reiterate what the divisions should be for each group of friends.
3. Once everyone has manipulated the cookies correctly and a review discussion as a whole group has been conducted, the teacher will move on to the independent practice portion of the lesson.

Independent Practice: What activities or exercises will students complete to reinforce the concepts and skills developed in the lesson?

1. The teacher will pass out the [Cookie Chart](#) to each student.
2. Students will complete the chart independently. They will be able to use their "cookies" to help them complete the chart, but the teacher is to erase what was written on the board.
3. Once each student has completed the chart, the teacher can project a chart onto the board (using a document camera, an interactive white board, or an overhead projector) to show students how the chart was to be completed.

Closure: How will the teacher assist students in organizing the knowledge gained in the lesson?

The teacher can talk about different objects being divided among various amounts of friends. Students can tell the teacher what else they can divide when they have a group of X amount of friends. Examples include: pizza, doughnuts, candy, books, stickers, pencils, etc.

When students are able to transfer the knowledge to other objects and groups of friends, it is apparent that they understood the lesson.

Summative Assessment

During the Guided Practice and Independent Practice portions of the lesson, students will be given a chart made by the teacher with each change that occurred during the story. Students will complete the chart which will be collected at the end of the lesson.

Formative Assessment

It is important to check that students have an understanding of repeated addition and representing equal groups with arrays in order to be successful during this lesson. Teachers will do the following to gauge where to start when beginning the lesson:

1. The teacher will write the following problem on the board: $3 + 3 + 3 = \underline{\quad}$.
2. The teacher will ask students to illustrate the problem first and then write the solution to the problem.
3. As the students are working, the teacher is walking around the room taking mental data on how students are solving the problem. Students should be drawing pictures of groups of three items or drawing an array that shows 3 rows of 3.
4. The teacher will also point out that this problem can be represented by the multiplication equation: $3 \times 3 = 9$
5. The teacher will determine whether or not to work on more problems like this or to move on, depending on the data she collected during the formative assessment.

Feedback to Students

As students are working on the lesson, the teacher will stop and give feedback through questioning students about their understanding. Questions such as: What can you tell me about the groups you have drawn? What would happen if another 2 children wanted to share the cookies? How can we show what happened using pictures and numbers?

Students will be able to correct, change, or continue on with the lesson as the teacher speaks with them on how they can solve the problem.

Accommodations & Recommendations

Accommodations:

1. The teacher can have pre-cut cookies for students or use cubes, teddy bears, etc. as the manipulative.
2. The teacher can work with these students in a small group.
3. The teacher can have pictures of children to depict the children in the story and these students can manipulate the objects to the pictures of the students.

Extensions:

Students can make up their own story using different objects and a different amount of people/objects. They can then read their story to another student and have

that student work on the problem discussed in the story.

Suggested Technology: Document Camera, Computer for Presenter, Interactive Whiteboard, LCD Projector, Overhead Projector, Adobe Acrobat Reader

Special Materials Needed:

brown construction paper
gray construction paper

A copy of "The Doorbell Rang" by Pat Hutchins

Further Recommendations:

This lesson also covers the following Mathematical Practices:

MP.2.1 (Reason abstractly and quantitatively.)

MP.7.1 (Look for and make use of structure.)

MP.8.1 (Look for and express regularity in repeated reasoning.)

Source and Access Information

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District/Organization of Contributor(s): Miami-Dade

Is this Resource freely Available? Yes

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Aligned Standards

Name	Description
MAFS.3.OA.1.3:	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. Clarifications: Examples of Opportunities for In-Depth Focus Word problems involving equal groups, arrays, and measurement quantities can be used to build students' understanding of and skill with multiplication and division, as well as to allow students to demonstrate their understanding of and skill with these operations.