

Valerie Christensen

Grade: 3

Subject: Oral Language in Mathematics

Content Objective: Standard 1

Students will be able to explain the base-ten numeration system, place value concepts, simple fractions and perform operations with whole numbers.

Objective 2

Use fractions to communicate and compare parts of the whole.

Language Objective:

Students will: **Read** and recognize fractions and their meaning.

Write a letter to their friend explaining the have each student explain why $\frac{1}{3}$ is larger than $\frac{1}{4}$. Make sure that students write the letter so that their friend understands what they are writing. Have them use pictures, words and numbers (or any combination of these).

Speak with their peers as they divide themselves, and also with a partner as they divide the items such as beans, plastic coins, or small cubes. Have them show each other their solutions to the problems that I give them.

Listen as they converse with their peers about dividing themselves, and in the partner work during the assessment portion.

A and B : Pre emergent and emergent	Read Students will recognize the numbers, and how to say them Write Students will use pictures to show what $\frac{1}{3}$ and $\frac{1}{4}$ are. Speak about the numbers with their partner as they divide the items. The items will be divided using basic problems and numbers. Listen to their partner. These students will be placed with a partner who is more fluent and can help them.
C: Intermediate	Read fractions and understand what a fraction is. Write at a basic level what $\frac{1}{3}$ and $\frac{1}{4}$ are as well as which is larger. Students may use pictures, words or numbers for this explanation. Speak with their partner as they divide the objects. They will work with their partner and show solutions to each other. These students will work on more simplified problems and numbers. Listen as they work with their partner. Students will be able to learn and apply new vocabulary.
D and E:	Read and recognize fractions and their meaning. Write a letter to their friend explaining the have each student explain why $\frac{1}{3}$ is larger than $\frac{1}{4}$. Make sure that students write the letter so that their friend understands what they are writing. Have them use pictures, words and numbers (or

Advanced and Fluent	<p>any combination of these).</p> <p>Speak with their peers as they divide themselves, and also with a partner as they divide the items such as beans, plastic coins, or small cubes. Have them show each other their solutions to the problems that I give them.</p> <p>Listen as they converse with their peers about dividing themselves, and in the partner work during the assessment portion.</p>
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Strategies:

Cognitive:

- *Measurement cards because this will help them to understand what each measurement is.
- *Word Wall because it will help students understand words that may be unfamiliar to them.
- *Letter to My Friend Worksheet because writing coherently helps individuals in their cognitive development.

Metacognitive:

- *Group Divide Us! Activity because this gives students a chance to reason with each other and discuss with each other.
- *Dividing the objects with a partner because this allows students to work with a partner and justify why the measurement is what it is.
- *Writing their letter to their friend because this causes students not just to know the information, but to know why and how they know it and figure it out, causing them to think about their thinking.

Herrell and Jordan:

- *Cooperative Learning because group work will provide students an opportunity to practice their oral language skills with other classmates and allows them to hear and learn from others language abilities.
- *Partner Work because students have the opportunity to work with a partner and have a closer atmosphere to be able to discuss and learn from their partners.
- *Skills Grouping because skills grouping will give me the opportunity to place partners with each other depending upon their skill level. This will help students to learn from the skills of their partner.

Instructional Features:

- *This lesson will begin with a discussion about fractions. To assess **background knowledge** I will ask the students what they know about fractions and what experiences they have had with them as well as talk about some of the vocabulary associated with fractions and simplify it for the students. (ie: sharing $\frac{1}{2}$ of something, slices of oranges compared to the whole.)
- *We will discuss key vocabulary and put the words on a word wall. The words fraction, part, whole will be used. If the students have additional words they don't understand, they will be covered.
- * Divide Us! Divide Us! Take the class outside and tell them that we are going to explore dividing us up into parts.

*When I get them outside I will explain that what we are going to do requires them to work together well and quickly and that sometimes I will remove a student or two from the group in order to facilitate correctly dividing the group.

*I will begin by asking the students how many there are in the whole class (at this point I have already chosen a number I are going to divide into halves, thirds, fourths, sixths, or eighths, e.g., 24). If I have had to pull any students aside have them help you check for accuracy of the work done by the others.

*Now ask the students to divide themselves into halves. I will make sure the students move far enough apart that the division is clear. I will use the white board and marker to have the students help me figure out how many that fraction is equal to after I have divided them (i.e., $\frac{1}{3}$ of 24 is 6).

*I will continue to do this using student numbers of a few (6-12) to the entire class, having them continue to divide into halves, thirds, fourths, sixths, and eighths.

*I may extend this activity by asking one fraction of the group to do something such as jump up and down, pat their stomachs, or sit down

1. Have students return to desks after Divide Us! Divide Us! activity.
2. Explain to students that they are now going to make some fraction strips that show how we can divide the whole into equal parts and compare them.
3. Give each student six **different** colored strips of color gel paper (1-inch x 12 inches).
4. Take one colored strip and label it **whole** (make sure all students are using the same color—it will help as you continue to work with the strips).
5. Take a second strip and have students divide the strip in half. Have them label each part with $\frac{1}{2}$.
6. Continue doing this with each different colored strip until students have divided and labeled whole, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, and $\frac{1}{8}$. This should take about 15 minutes.
7. Explain that I am going to take a look at the sizes of each fraction compared to each other.
8. Have students explore the relative sizes of each fraction strip by asking them questions such as “Which is larger: $\frac{1}{2}$ or $\frac{1}{3}$? $\frac{1}{6}$ or $\frac{1}{8}$?” It is important that as I ask questions I will also have students explain their reasoning for which is larger.
9. As I work with students on these comparisons I will have them notice the denominators of these fractions. I will ask the question, “Look at the denominator. Why, if the number is bigger, do we have smaller pieces of the whole?” As a class, we will explore this and lead the students to the understanding that the larger the denominator the more (and thus, smaller) parts the whole is being divided into.
10. Finish this lesson with the assessment activity *A Letter to My Friend*.

Grouping:

*Pair students up in heterogeneous grouping so that less fluent students can be helped by more fluent students.

Assessment:

These assessments take into account English language learners abilities as addressed in the language objectives.

Summative:

*A Letter to My Friend: Using the paper *A Letter to My Friend*, have each student explain why $\frac{1}{3}$ is larger than $\frac{1}{4}$. Make sure that students write the letter so that their friend understands what they are writing. Have them use pictures, words and numbers (or any combination of these).

*Pair students up in heterogeneous grouping so that less fluent students can be helped by more fluent students, and give them handfuls of items such as beans, plastic coins, or small cubes. Have them show each other their solutions

that I give them to problems such as: make a pile of 30. Show me how you divide the pile into halves. Show me thirds. Sixths. Use any total that you can divide into halves, thirds, fourths, sixths, or eighths.

Formative:

*During the activity "Divide Us! Divide Us!" I will assess the understanding the students have of the fractions and their abilities to divide something into parts of whole. During this activity if it appears that the students are confused, or lack the level of understanding needed, then I will give the class more examples, and explain more about fractions before moving on in the lesson. Also through this activity I will give students feedback of how they are doing and comment on their skill and ability of dividing themselves.

*The students will have the opportunity to participate with the class with their fraction strips. I will assess the students' conversations and their abilities to explain about fractions. If more explanation or review of fractions is necessary, I will give more examples to the class.

Name _____

Date _____

A Letter to My Friend

Some people think that $\frac{1}{4}$ is larger than $\frac{1}{3}$.

Some people think that $\frac{1}{3}$ is larger than $\frac{1}{4}$.

Which do you think is larger?

Write a letter to a friend telling why you are right.

Use pictures, letters, numbers, or all of these to explain your thinking.

Remember, your friend must understand what you write.