

"We're Bananas for Fractions"



For further information contact

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2005-2006 IDEA CATALOG OF EXCELLENCE

PROGRAM OVERVIEW

The objective of this unit is to teach my students that fractions are not just found on a worksheet but they are found everywhere. At the beginning of the unit, I asked my students where they would find fractions and one of my students said "You find fractions on a worksheet." Well that just broke my heart. Most students today are so used to pencil and paper that they don't apply these concepts to real world experiences. I made sure this unit was going to be more hands-on than just pencil and paper. Throughout this unit I taught students fractions using lifesavers, M&M's, graham crackers, fruit snacks, goldfish crackers, jelly beans and I ended the unit with a pizza party! While we used these snacks to learn fractions, our class also went over healthy and unhealthy foods.

I used this project with 23 second graders. The abilities in my class range from high risk students to very high achieving students. I used the whole class in this project but used small groups with different activities. Each group usually had a high, medium and low student. They were able to work with each other to come up with the answer. I tried to provide higher level thinking to challenge the ones who were working at a higher level. I would also meet the needs of the lower achieving students by providing a fraction question, using some kind of snack, in each group in the mornings when they walked in the classroom. This would give everyone a chance, especially the lower achieving students, to think of the answer all day until our Math lesson. By the time we had Math, everyone had seen their question and it allowed everyone to be on "the same page" when we discussed fractions.

During the project, each student had their own fraction journal. They did have to use higher level thinking when answering the questions in their journal. The students were surprised each day when I explained what their Math assignment would be in their journal. They didn't view this as Math because a worksheet was never passed out and turned in. I believe using the hands-on approach helped my students succeed in fractions not just in the classroom but in the real world as well.

This is a simple project that anyone can use in their classroom. The only pieces of equipment that I used in my classroom were tables, desks and chairs. I used the tables and chairs to set up fraction stations for each child to go around the room and look at each fraction to figure out the answer. The children used their own desk with the morning fraction question on it.

The only outside resource I used was the lunchroom. I would use food from the lunchroom to show the students various fractions. This gave them the opportunity to find fractions in the lunchroom everyday!

I believe this is a wonderful project to do in the classroom. Any class can adapt this fraction unit. For the older students, teachers can have the students buy the snacks for this project. This activity incorporates money and making change. It also includes multiplication and division. For the younger students, teachers can use shirt colors with fractions. This will help the students learn some of their colors and teach them how to sort items. I believe it is easier to adapt a simple unit rather than a complex unit. That is what I want this unit to be for every classroom – SIMPLE.

Just remember, we remember:

- 10% of what we hear
- 15% of what we see
- 20% of what we hear and see
- 40% of what we discuss
- 80% of what we experience directly and practice doing
- 90% of what we attempt to teach others

OVERALL VALUE

This program uses lesson plans that can be adapted to any grade level. The materials are also very inexpensive. It is designed to help students understand that fractions are everywhere. It helps them to apply fractions to real world use. This program gives the students the opportunity to see that fractions are not just found on a worksheet.

LESSON PLAN TITLES

- M&M assessment stations
- Magazine Fractions
- Sorting Snacks

MATERIALS

Materials for each lesson are listed with each lesson plan. Overall materials budget including pricing and vendors follows the lesson plans.

ABOUT THE DEVELOPER

Emily Stephens has been at Scott Lake Elem for three years & is currently teaching second grade. She graduated from the Univ of South Florida. This fall, she will begin working on her National Board Certification.

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LESSON PLAN No 1: M&M assessment



SUBJECTS COVERED

Math

GRADES

Two - Three

OBJECTIVES

To assess what the students have learned through this fraction unit.

SUNSHINE STATE STANDARDS

This lesson uses a variety of Math Sunshine State Standards using fractions.

MATERIALS (PER GROUP)

- 10 clear plastic cups
- 10 computer labels
- 10 small sticky notes
- 1 bag of regular or peanut M&M's (variety of colors)
- 10 tables or desks
- 10 chairs
- fraction journal
- pencil

DIRECTIONS

1. Put 2 different colors of M&M's in all 10 cups.
2. Use a different amount in each cup.
Example: 2 red M&M's and 4 blue M&M's
3. Put a small sticky note with a number (1-10) on each cup labeling the fraction station.
4. On the computer label write a question to put on each fraction station cup.
5. Each question will read What fraction is _____? Put a color in each blank.
6. Spread the cups out into the room to form each station.
7. Divide the students into 1, 2 or 3 groups of 10 (depending on the size of your class)
8. Have the students in all the groups number 1-10 in their fraction journal on a specific page.
9. In the first group, assign one student to each station.
10. The students will be at each station for about 1 minute. The student will look at the question and then use the M&M's to answer. The students may take the M&M's out of the cup if they are able to answer the question easier.
11. After one minute the students, will rotate in order to the next station. This will continue until all of group 1 students have been to each station.
12. Repeat steps 9, 10 and 11 for groups 2 and 3.

EVALUATION / ASSESSMENT

It is very important that all students are actively participating. While students are being assessed, the other students who are waiting are sitting at their seat reading or answering questions about fractions using my banana fraction bulletin board. A copy of the banana bulletin board is attached.



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LESSON PLAN No 2: Magazine Fractions



SUBJECTS COVERED

Math

GRADES

Two - Three

OBJECTIVES

To have students distinguish between fractions on a worksheet and real world fractions.

SUNSHINE STATE STANDARDS

This lesson uses many of the Math Sunshine State Standards.

MATERIALS NEEDED

- Piece=Part=Portion by Scott Gifford (Scholastic)
- 1 newspaper per child
- 1 piece of construction paper per child
- 1 pair of scissors per child
- glue sticks
- pencil

DIRECTIONS

1. Read Piece=Part=Portion to the students. Showing them real world fractions in the book versus just finding them on a worksheet.
2. Give each student a newspaper, construction paper (their color or teacher’s color), scissors and glue stick.
3. Have the students separate into different places in the room.
4. Have them look for 3 real world fractions in their newspaper.
5. They will cut and glue them on the construction paper.
6. Have them write the fraction next to each picture.

EVALUATION / ASSESSMENT

The students will need to distinguish worksheet fractions and real world fractions. They will be given a task that will help them to separate the two. They will each be given a newspaper and they will have to find 3 real world fractions. For example, they may find 2 blue couches and 1 green couch. They will decide they want to make $\frac{2}{3}$ as their fraction or they may choose to make their fraction $\frac{1}{3}$. After they have found their pictures, they will glue them on the construction paper and write the fraction for each picture. They will need to throw away all the extra newspaper and small pieces of trash.



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LESSON PLAN No 3: Sorting Snacks



SUBJECTS COVERED:

Math and Writing

GRADES:

Two - Three

OBJECTIVES

- To sort by color to find the fraction in each fruit snack flavor.
- To distinguish between a healthy snack and an unhealthy snack.

SUNSHINE STATE STANDARDS

This lesson uses a variety of Math Sunshine State Standards as well as Science Sunshine State Standards.

MATERIALS (PER GROUP)

- Dora the Explorer fruit snacks
- fraction journal
- pencil
- paper plate

DIRECTIONS

1. Give each student one package of Dora Explorer fruit snacks and a paper plate.
2. As a class, write down all the different colors on the board that the students find in their package.
3. Have the students copy all these colors on their fraction journal page.
4. Have the students sort all the colors.
5. Have them write down the total number of fruit snacks in their package and the amount of each color fruit snack.
6. On the back, have the students answer two questions.
 - a. What color fruit snack tasted the best and why?
 - b. Is this a healthy or unhealthy snack to eat and why?

EVALUATION / ASSESSMENT

The students will each get a pack of Dora fruit snacks. They will put them all on a paper. They will sort the snacks by colors. The students will copy all the colors of their package in their fraction journal. Have them make a fraction next to each color by putting the number of each color snack over the total number of snacks in their package. Each child's answers will be different because not every package is the same amount or same colors. After they have completed this activity, have them turn to the next page and answer the two questions above in the directions.



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LESSON PLANS MATERIALS BUDGET



Materials Budget

ITEM DESCRIPTION	QTY	COST	SUPPLIER	TOTAL COST
Graham Crackers	2 boxes	\$2.00	Wal-Mart	\$4.00
M&M's	1 bag	3.00	Wal-Mart	3.00
Jelly Beans	3 bags	1.00	Wal-Mart	3.00
Fruit Loops	1 box	2.00	Wal-Mart	2.00
Fruit Snacks	3	4.00	Wal-Mart	12.00
Lifesavers	8 rolls	.50	Wal-Mart	4.00
Goldfish Crackers (Reg, Pretzel, Cheese)	3 pkgs	2.00	Wal-Mart	6.00
Pizza	5	5.00	Wal-Mart	25.00
Ziplock Bags (Snack size)	2 boxes	3.00	Wal-Mart	6.00
Paper Plates	75 ct.	2.00	Wal-Mart	2.00
Computer paper (White)	1 ream	4.00	Wal-Mart	4.00
Construction paper (Variety of colors)	1 ream	3.00	Wal-Mart	3.00
Newspaper	25	.50	Wal-Mart	12.50
Computer Labels	1 pkg	5.00	Wal-Mart	5.00
Pencils (pack of 25)	1	2.00	Wal-Mart	2.00
Overhead Fraction Circles	1	10.00	Teacher's Exchange	10.00
Counting Pizza	1	2.00	Scholastic Books	2.00
Piece=Part=Portion	1	2.00	Scholastic Books	2.00
Fraction Action	1	2.00	Scholastic Books	2.00
Apple Fractions	1	2.00	Scholastic Books	2.00
The Hershey's Milk Chocolate Fraction Book	1	2.00	Scholastic Books	2.00
Subtotal				\$113.50
Tax if applicable				\$7.95
Shipping if applicable				
TOTAL BUDGET AMOUNT				\$121.45

Teacher's Name **Emily Stephens**
 School: **Scott Lake Elementary**

