

“Order Up”



For further information contact...

Hillary Hendrix

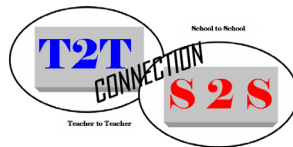
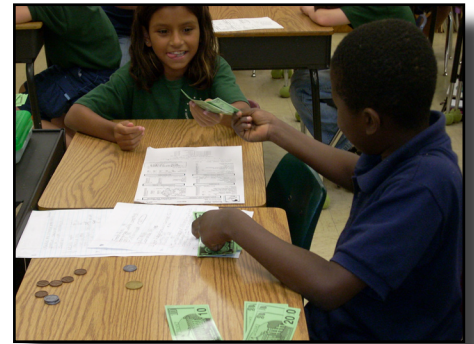
Inwood Elementary

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2008 - 2009 IDEA CATALOG OF EXCELLENCE

■ PROGRAM OVERVIEW

It seems as though everything that we do in the classroom is to improve test scores and **Order Up** will do just that. This innovative program gives students an opportunity to apply their knowledge of adding and subtracting decimals by using a menu and classroom cash to simulate a real-world experience.

Beginning on day one, students are given menus and are asked to order two breakfasts, two lunches, and two dinners and find the total for each. Then students are asked to get with a shoulder partner and pretend that they are at restaurant; they are to take turns being the customer and the cashier. Using the classroom cash, the customer is to place their order and pay the cashier, and the cashier is to give the customer back the correct amount of change.

On day two, students are given an allotted amount of money and are to order from the menu, add in tax and a tip (using given tables) without going over their budget. If a student goes over his/her budget, they must subtract an item from his/her order and add a less expensive item. Again, students are to work with a partner, use the classroom cash, and take turns being the customer and cashier.

The student's progress is assessed using anecdotal notes made during observation, students' papers and quizzes. See the attached rubric for assessment options.

This program has been implemented in third grade classrooms with an average of 16-20 students and with special needs, mainstreamed students. It is easily adapted to fit the needs of any classroom based on the grade level, student's abilities, and class size.

Utilization of a regular classroom, as well as the following materials, pencil, paper, classroom pack menus, classroom cash money with tray, Florida tax table, tip table based on fifteen percent, and money calculator (this is used to provide accommodations) will be needed during implementation of the program. See the "Materials Budget" for specific materials needed.

■ OVERALL VALUE

Teachers have a short time to prepare students for FCAT and time is precious. This program gives you the flexibility to work around time constraints. The program can be completed in a short amount of time (one to two days) or can be expanded into a cross curricular unit that is spread out over time (one to two weeks).

The flexibility of this program makes it realistic for classroom use and easy to implement. The success of this program is noted to the fact that it is engaging, hands-on, and presents the material in a real-world situation that most all students can relate to.

■ LESSON PLAN TITLES

- Out to Eat
 - Math + Food = Fun
- (For additional lesson plans, contact the program developer)

■ MATERIALS

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

■ ABOUT THE DEVELOPER

Hillary Hendrix has a B.S. in Elementary Education with a Minor in Psychology from the University of South Florida and is certified in Exceptional Student Education. She has been a third grade teacher at Inwood Elementary for two years as well as the owner of "Hillary Hendrix's Helping Hands Tutoring".

Hillary enjoys teaching and finding new innovative ways to meet student's needs.



“Order Up” Hillary Hendrix

Lesson Plan No 1: Adding and Subtracting Decimals – “Out to Eat”



■ SUBJECTS COVERED

Math

■ GRADES

Three - Five

■ OBJECTIVES

- ✓ The students will be able to review and practice the process of adding and subtracting decimals.
- ✓ The students will be able to practice using decimal numbers in the context of a restaurant menu.
- ✓ The students will be able to use a restaurant food menu to simulate a real world experience.

■ SUNSHINE STATE STANDARDS

MA.A.3.2.3

adds, subtracts, and multiplies whole numbers, decimals, and fractions including mixed numbers, and divides whole numbers to solve real world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

MA.A.3.2.2

selects the appropriate operation to solve specific problems involving addition, subtraction, and multiplication of whole numbers, decimals, and fractions, and division of whole numbers.

■ MATERIALS

- Classroom Pack Menus
- Paper and pencil for each student
- Classroom money trays
- Money calculator

■ DIRECTIONS

1. Give each student menu, pencil and paper. Explain to the students that they are going to pretend that they are going out to eat and are going to use the menu to order what they would like.
2. On the board do an example for them. For Example: I am going to out to dinner. I would like to have the chicken dinner (explain that the dinners come with sides, but sandwiches do not so they would have to order the side separately), which costs \$6.50. I am going to need something to drink, so I would like to have an iced tea that costs \$1.15. What is dinner without desert? So, for desert I am going to have cheesecake, which costs \$3.00. What is my total, and add up the total of the items.
3. Explain to the students that they are going to pretend that they are going out to eat and are going to place 2 breakfast orders, 2 lunch orders, and 2 dinner orders and find the totals of each.
4. When students are finished have them trade papers with their shoulder partner and check their work.
5. When the students have checked each others work they may get a money tray. Assign each pair of students a number (1 or 2).
6. Explain to the students that one person is going to pretend to be that cashier and one person is going to pretend to be the customer. The customer is given \$20.00 to pay for his/her meal and the cashier has to figure out how much change he/she should receive and give that amount back to them. The number ones will pretend to be the customer for every odd question and the number twos will do the same for every even numbered question. For example: question one the total is \$12.67 so the number 1 student (customer) will

give the other student \$20.00 to pay for his/her meal and the number 2 student (cashier) has to figure out how much change the number one student should receive (\$7.33) and use the classroom cash to count out \$7.33. The number 1 student/customer is going to check that he/she received the correct amount of change back. Students should show their work on their paper.

7. Have students repeat step 6 until all 12 (6 problems for each student; 2 breakfast, 2 lunches, and 2 dinners) problems have been completed.

■ ACCOMMODATIONS

Students that have difficulty adding and subtracting decimals may be allowed to use a money calculator to check their work.

■ VARIATIONS

- Have each student count out multiple ways of making each dollar amount using the money and record their findings.
- Give students word problems and have them use their menus to help solve the problems and show their work.
- Have students create their own menus, exchange them with a partner, order a meal, and add up the cost.
- Give students a specific dollar amount and have them order whatever they would like without going over their budget.

■ EVALUATION/ASSESSMENT

There are several ways that you can assess your students.

1. As you circulate the class and make anecdotal notes.
2. Collect the students' papers; did they add and subtract correctly?
3. Follow up with a quiz.



“Order Up” Hillary Hendrix



Lesson Plan No 2: Adding and Subtracting Decimals – Math + Food = Fun



SUBJECTS COVERED

Math

GRADES

Three - Five

OBJECTIVES

- ✓ The students will be able to review and practice the process of adding and subtracting decimals.
- ✓ The students will be able to practice using decimal numbers in the context of a restaurant menu.
- ✓ The students will be able to use a restaurant food menu to simulate a real world experience.
- ✓ Students will be able to round decimals to the nearest whole.
- ✓ The students will be able to read a tax table and determine the amount of tax to be paid for various dollar amounts.
- ✓ The students will be able to read a tip table and determine the amount of tip to leave at a restaurant based on the amount of their total bill.
- ✓ Students will be able to count money in multiple ways.

SUNSHINE STATE STANDARDS

MA.A.3.2.3

adds, subtracts, and multiplies whole numbers, decimals, and fractions including mixed numbers, and divides whole numbers to solve real world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

MA.A.4.2.1

uses and justifies different estimation strategies in a real world problem situation and determines the reasonableness of results of calculations in a given problem situation.

MATERIALS

- Paper and pencil for each students
- Classroom Pack Menus
- Florida Tax Table
- Tip Table based on 15%
- Money Calculator
- Classroom cash with money tray

DIRECTIONS

1. Prior to beginning the lesson, write the following on the board for all students to see (if you have document camera, you could write it on a sheet of paper and display it for all to see using an overhead projector):

Main:	Slice of pizza.....	\$2.50
	*Burger	\$3.00
Side:	*Salad	\$2.00
	French Fries	\$2.00
Beverage:	*Soda	\$.75
	Juice	\$.45
Dessert:	Cookie	\$.25
	*Ice Cream	\$.25
2. Have a student come to the front of the classroom and tell the class that you are pretending to be a waiter and that your helper is going to be a customer. Give the student a \$10.00 bill and tell he/she that they order what they want off of the menu, but they cannot go over their \$10.00 and to remember that they have to pay tax and leave a tip (Whisper to your helper to order the items with a star next to them). As the student places his/her order write down the item and its price, and add them together reviewing the adding process.
3. Your total should be \$6.00. Next using the tax table to determine what the tax should be (\$.42) and add that amount in. Now using the Tip table determine the amount of the tip that should be left (\$.90; \$6.42 rounds to \$6.00) and add it to the total. This is the total amount due (\$7.32).
4. Now tell the student that he/she owes you \$7.32 and have the student hand you the \$10.00. On the board calculate what their change should be. Using the money tray count back the student's change (\$2.68).
5. Repeat steps 2-4 except this time have the helper order the items without the star.

6. Now ask the students to get into pairs (each student will need a piece of paper and a pencil and each group will need a tax table, tip table, money tray, and menu) . Explain that each person will get to be both the customer and the waiter.
7. Using pencil and paper to show their work, have the students go through the same process, ordering a main dish, side item, beverage, and dessert from their menu, pay tax and leave a tip without going over the allotted amount of money. If their total is too high, they must subtract an item and then add a less expensive one.
8. Students must double check their work. Once they have double checked their work they must pay; the customer gives their money to the waiter who acts as the cashier.
9. Partners should switch roles and repeat. Increase the amount of money allotted after 4-6 turns.

ACCOMMODATIONS

Students that have difficulty adding and subtracting decimals may be allowed to use a money calculator to check their work.

VARIATIONS

- Students could be given more money and be asked to buy dinner for them and a friend or their family.
- Introduce the process of multiplying decimals by demonstrating the concept of sales tax or tips instead of using a tax or tip table.
- Have students check their work by using the inverse operation.
- Provide nutrition guidelines and ask them to use these to help make their decisions.

EVAL. / ASSESSMENT

There are several ways that you can assess your students.

1. As you circulate the class, make anecdotal notes.
2. Collect the students papers; did they stay within their budget, was their adding and subtracting correct, and did they correctly use the tax and tip table?
3. Follow up with a quiz.



“Order Up” Hillary Hendrix Rubric



Name: _____ Project/Program Title: *Order Up* Date: _____

Assessment for

Skill	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Students will be able to add decimals.	The adding process and decimal placement are not clearly demonstrated, and the sum is not correct.	The adding process and decimal placement are clearly demonstrated, but the sum is not correct (or vice versa).	The adding process and decimal placement are clearly demonstrated in the work, and the sum is correct with 75% accuracy.	The adding process and decimal placement are clearly demonstrated in the work, and the sum is correct with 90% accuracy.	
Students will be able to subtract decimals.	The subtraction process and decimal placement are not clearly demonstrated, and the difference is not correct	The subtraction process and decimal placement are clearly demonstrated, but the difference is not correct (or vice versa).	The subtraction process and decimal placement are clearly demonstrated in the work, and the difference is correct with 75% accuracy.	The subtraction process and decimal placement are clearly demonstrated in the work, and the difference is correct with 90% accuracy.	
Students will be able to use a menu.	The student needed help using the menu and had difficulty finding necessary information.	The student used the menu with little help and found the necessary information.	The student used the menu and found the necessary information with 75% accuracy	The student used the menu confidently and easily found the necessary information with 90% accuracy.	
Counting money	The student is unable to count money.	The student is able to count money for a given dollar amount with little help.	The student is able to count money for a given dollar amount with 75% accuracy.	The student is able to count for money for a given dollar amount with 90% accuracy.	

