

Summer 2015

Addition and Subtraction with Decimals Review [6th grade]

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Name: _____

Date: _____

UNDERSTANDING BY DESIGN

Unit Cover Page

Unit Title: Addition and Subtraction with Decimals Review

Grade Level: 6th

Subject/Topic Area(s): Math

Designed By: Samantha Bos

Time Frame: Approximately 2 weeks

School District: The Winston School San Antonio

School: The Winston School San Antonio

School Address: 8565 Ewing Halsell Dr, San Antonio, TX 78229

School Phone : (210) 615-6544

Brief Summary of Unit (Including curricular context and unit goals):

The purpose of this unit is to briefly review multiple-digit addition and subtraction with decimals. The unit starts by reviewing addition with whole numbers, adding decimals, then reviewing subtraction with whole numbers, and then decimals. The unit finishes with a brief finance lesson in how to write checks, receipts, and balance a checkbook. The culminating project is a bazaar where students buy and sell homemade products and keep track of the money they spend by keeping a checkbook in addition to the receipts and checks they have received.

This unit's instruction is primarily through flipped instruction; the students listen and take notes to a video at home, and then practice the application at school. Flipped videos are accessible through the weebly link at the bottom of the unit. These lessons can also be taught in class.

There are a few important notes to be made about the lesson. The first is that this lesson is designed for students with learning differences and therefore the lesson may be applicable to mainstream students at a younger age or a small group pull out. In addition, this lesson was designed for a small class or a small group pull out. The logistics of the culminating bazaar will have to be adjusted for a large class.

Name: _____

Date: _____

Stage 1 Desired Results		
<p>ESTABLISHED GOALS (6.1.A) The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>(6.3.D) Number and operations. The student applies mathematical process standards to represent addition, subtraction, multiplication, and division while solving problems and justifying solutions. The student is expected to: add, subtract, multiply, and divide integers fluently.</p>	Transfer	
	<p><i>Students will be able to independently use their learning to...</i> Use addition and subtraction skills to engage in financial transactions in a closed simplified monetary system.</p>	
	Meaning	
	<p>UNDERSTANDINGS</p> <p>In a closed monetary system, the profits must equal the expenses of the group.</p> <p>Expenditures cannot be greater than original income (you cannot spend more than you have).</p> <p>Addition and subtraction are inverses of the same function.</p>	<p>ESSENTIAL QUESTIONS</p> <p>How can math be used in everyday application?</p> <p>How do you know when to use addition versus subtraction?</p>
	Acquisition	
	<p><i>Students will know...</i></p> <p>How to write a check.</p> <p>How to balance a simplified checkbook.</p> <p>How to use money-related terms including: income, expenses, check, deposit, checkbook, balance</p>	<p><i>Students will be skilled at...</i></p> <p>Adding numbers with decimals</p> <p>Subtracting numbers with decimals</p> <p>Using the inverse of an operation to check an answer</p> <p>Identifying and using key words to signal operations in word problems.</p>

Name: _____

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Stage 2 – Evidence		
Code (M or T)	Evaluative Criteria	Assessment Evidence
		<p>PERFORMANCE TASK(S): Students will buy and sell homemade items at a class bazaar using checks, as well as balance a checkbook.</p> <p>Each student will come to school with pre-priced goods that they will sell to the class (there must be enough for everyone in the class to receive at least one). In addition, students will each be given a checkbook.</p> <p>Round 1:</p> <p>In the first round of purchasing/selling the first group students will go to booths that they would like and purchase goods. Students who are buying goods must give a check to the sellers as well as keep track of their expenditures on their checkbooks. The seller will also keep track of income made on their checkbooks and provide a receipt for each purchase made.</p> <p>Students will return to their desk and must calculate their new net worth and make sure that it matches the amount of money that they have in their checks and receipts.</p> <p>Round 2-6:</p> <p>The process will repeat so that every student has a chance to purchase goods from every other student.</p> <p>Students must make a final tabulation of the amount of money they have at the end of the transactions and compare it to their checks and receipts.</p> <p>As a final check, students will put their final balances on the board and the class will find the sum, which should equal the total number of students multiplied by \$20.</p>
		<p>OTHER EVIDENCE:</p> <p>Addition/Subtraction Unit Test</p> <p>Entry/Exit Tickets</p>
Stage 3 – Learning Plan		
	<p>Obj: Students will be able to demonstrate prior knowledge of addition and subtraction as well as financial formatting</p> <p>Pre-assessment: Students will complete a brief pre-test with addition and subtraction problems as well as a word problem asking the students to balance a checkbook.</p>	
Code (A,M,T)	Summary of Key Learning Events and Instruction	Progress Monitoring

A	<p>Day 1: Students will be able to add whole numbers fluently.</p> <ul style="list-style-type: none"> • Teacher will briefly review the concept of carrying over when adding two digit or larger numbers. • Students will then practice with a partner adding on white boards using two to four ten-sided dice, checking their partner for the correct answers. • If time remains, students will compete on the white board; two students will go up and add two double- or triple-digit numbers. The first to answer the problem correctly remains at the board, while the other sits down and the next challenger goes to the front of the board. • Exit Ticket: Students must complete a brief series of addition problems in the last five minutes of class. <p>HW: Students will complete the notes portion of the Addition Decimal Video for homework.</p>	Exit Ticket
A	<p>Day 2: Students will be able to add numbers with decimals fluently.</p> <ul style="list-style-type: none"> • Entry ticket: Students will complete a series of whole number addition math problems. • Students will practice as a group addition problems with decimals. • Students will practice with a partner adding problems with decimals. • Exit Ticket: Students will complete a series of decimal addition math problems. 	Exit Ticket
A	<p>Day 3: Students will be able to subtract whole numbers fluently.</p> <ul style="list-style-type: none"> • Entry Ticket: Students will complete a brief series of decimal addition math problems. • Teacher will briefly review borrowing in subtraction problems. • Students will complete subtraction problems with the class and then individually. After completing subtraction problems, students will be expected to check their answers by inversing the equation and adding the numbers to check the answer. • Exit Ticket: Students will complete a brief series of subtraction problems with whole numbers. 	Exit Ticket
A	<p>HW: Students will complete the notes portion of the subtraction with decimals handout.</p>	Exit Ticket

<p>A</p> <p>M</p>	<p>Day 4: Students will be able to subtract numbers with decimals fluently.</p> <ul style="list-style-type: none"> • Entry Ticket: Students will complete a brief series of subtraction problems using whole numbers. • Students will complete subtraction problems with class and then individually. After completing subtraction problems, students will be expected to check their answers by inversing the equation and adding the numbers to check the answer. • Exit Ticket: Students will complete a brief series of subtraction problems with decimals. 	<p><i>Collect Entry Ticket/ Warm-Ups</i></p> <p><i>Exit Ticket</i></p>
<p>A</p>	<p>HW: Students will complete notes portion of the word problems handout.</p>	<p><i>Exit Ticket</i></p>
<p>M</p>	<p>Day 5: Students will be able to apply definitions of math vocabulary to solve word problems.</p> <ul style="list-style-type: none"> • Entry Ticket: Students will complete a brief series of addition and subtraction problems using whole numbers and decimals. • Students will practice solving word problems as a class and then individually. • Exit Ticket: Students will be given a list of signal words and determine if they apply to addition or subtraction problems. <p>HW: Students will create 3 word problems using the math vocabulary learned in class.</p>	
<p>A</p>	<p>Day 6: Students will be able to apply definitions of math vocabulary to solve word problems.</p> <ul style="list-style-type: none"> • Entry Ticket: Students will complete a brief series of word problems. • Students will solve the other students' word problems, highlighting the key words used. • Exit Ticket: Students will reflect on three things they have learned about word problems. <p>HW: Watch and complete the notes for the first steps of the LINCing Vocabulary Strategy via Flipped Video Instructions. Students should define the words and brainstorm effective Reminding Words for each vocabulary term.</p>	<p><i>Exit Ticket</i></p>

<p>T</p>	<p>Day 7: Students will be able to connect addition/subtraction vocabulary and financial vocabulary to prior knowledge.</p> <ul style="list-style-type: none"> • Students will complete the LINCing notes for math vocabulary. Using Think-Pair-Share, students will share their ideas from the night before for effective Reminding Words; students may change their answers if they choose and share with the class their favorite Reminding Word. • As a class, students will brainstorm LINCing Stories to connect the definition of the vocabulary word and the Reminding Word. • Independently, students will create a picture to remind them of the word. • Students will then test each other on their ability to remember the definitions of the words (using the reminding word and story). <p>HW: Students will complete the notes portion of the Checks & Checkbook Notes</p>	<p><i>Collect Entry Ticket/ Warm-Ups</i></p> <p><i>Test</i></p>
<p>A</p> <p>T</p>	<p>Day 8: Students will be able to apply addition, subtraction, and word problems skills to writing checks and balancing a checkbook.</p> <ul style="list-style-type: none"> • <u>Entry Ticket:</u> Students must be able to correctly define a given word and include the Reminder Word, LINCing story, or description of the picture. • As a class, students will practice completing a balanced checkbook. • Exit Ticket: Students will complete a brief series of addition and subtraction problems. <p>HW: Study for Test Create goods for bazaar</p> <p>Day 9: Students will be able to apply addition and subtraction skills in addition to being able to identify key signal words in word problems.</p> <ul style="list-style-type: none"> • Entry Ticket: Students will complete a brief series of addition and subtraction problems with decimals as well as identify/sort key vocabulary signal words in a word problem. • Test 	<p><i>Transfer Assessment</i></p>

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<p>HW: Watch the notes portion of the video of how to write a check and a receipt. Create goods for the bazaar</p> <p>Day 10: Students will be able to prepare visual representations of goods to be sold at the bazaar.</p> <ul style="list-style-type: none">• Entry Ticket: Students will balance a checkbook according to word problems.• Students will review the process of the bazaar and create posters or slogans to identify the goods they are selling.• Students will practice writing checks and receipts for the bazaar. <p>HW: Create goods for the bazaar</p> <p>Day 11: Students will be able to apply addition and subtraction skills in financial transactions.</p> <ul style="list-style-type: none">• Students will review the process of the bazaar and set up their booths.• Bazaar	
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- <http://www.kidsmoneyfarm.com/how-to-write-a-check.htm> for check template
- <https://www.moneyinstructor.com/wsp/printregister.asp> for checkbook template
- Kaffir, B., Mercer, C., & Miller, S. (2011). Addition with regrouping. Lawrence, Kansas: Edge Enterprises.

Flipped Videos available at <http://winstonbos.weebly.com>

Magical Math Bazaar

Welcome to the Magical Math Bazaar. Today you have an opportunity to put your addition and subtraction skills to work as you sell your products and buy goods from your peers.

Name: _____

Date: _____

When it is your turn to buy from others, be sure to write complete checks and record the money you spend as **expenses**. Don't forget that when you are selling your goods, you need to write a receipt for every item bought and record every amount as a **deposit**.

Example Receipt:

Date 9/8/2015
Receipt Number 001

BAZAAR RECEIPT

Description (including number)	Lucy's Lovely Hair Ties - 1
Buyer	Charlie
Seller	Lucy
Total Amount	\$ 1.89

Example Check:

Name: _____ Charlie Brown _____	No. 0001
	Date <u>9/8/15</u>
Pay to the Order of _____ Lucy van Pelt _____	\$ <u>1.89</u>
_____ One and 89/100 _____	Dollars
<small>Big Money Bank</small>	
For <u>1</u> Hair Tie	<u>Signature</u> <u>Charlie Brown</u>
1:9876543211: 8086545309 0001	

Check #	Check Paid To	Check/Deposit Amount	Balance

