

Math6.org Activities for Decimals

Vocabulary Studies

- ___1) On-Line Word Search
- ___2) 3 Column Notes
- ___3) Flash Cards
- ___4) Crossword Puzzle
- ___5) Matching Practice
- ___6) Vocabulary Millionaire!

Tests and Games

- ___67) Quiz Bowl - Decimal Values
- ___68) Millionaire - Decimal Place Value
- ___69) Mid Chapter Quiz
- ___70) Quiz Bowl
- ___71) Practice Test
- ___72) Decimals Millionaire

Activities by Lesson

3.1 Compare and Order Decimals

- ___7) Identify Place Values Lesson
- ___8) Identify Place Values (GP)
- ___9) Place Value Machine
- ___10) Place Values Quiz
- ___11) Reading Decimals Lesson
- ___12) Writing Decimals Lesson
- ___13) Writing Decimals (GP)
- ___14) Writing Decimals Quiz
- ___15) Ordering Decimals (GP)
- ___16) Lesson Quiz
- ___17) **Quiz Bowl - Decimal Values
- ___18) **Millionaire - Decimal Place Value

3.2 Estimation with Decimals

- ___19) Rounding Decimals Lesson
- ___20) Rounding Decimals (GP)
- ___21) Rounding Decimals Machine
- ___22) Rounding Decimals Quiz
- ___23) Estimation Worksheet
- ___24) Estimation with Decimals (GP)
- ___25) Lesson Quiz
- ___26) **Estimating Expenses

3.3 Adding and Subtracting Decimals

- ___27) Review Worksheet
- ___28) Add and Subtract Decimals Lesson
- ___29) Add and Subtract Decimals (GP)
- ___30) Lesson Quiz
- ___31) **Banking Basics

3.4 Metric Measures

- ___32) Review Worksheet
- ___33) Metric Roots Matching
- ___34) Powers of 10 (GP)
- ___35) Powers of 10 Quiz
- ___36) Metric Ladder (GP)
- ___37) Lesson Quiz
- ___38) **Metric Zoo

3.5 Scientific Notation

- ___39) Review Worksheet
- ___40) Scientific Notation (GP)
- ___41) Lesson Quiz
- ___42) **The Universe

3.6 Multiplying Decimals

- ___43) Review Worksheet
- ___44) Counting Decimal Places Practice
- ___45) Multiply Decimals Lesson
- ___46) Multiply Decimals (GP)
- ___47) Lesson Quiz
- ___48) **Financial News

3.7 Dividing Decimals by Whole Numbers

- ___49) Review Worksheet
- ___50) Decimal Dividends Lesson
- ___51) Decimal Dividends (GP)
- ___52) Lesson Quiz
- ___53) **Split the Bill

3.8 Dividing with Decimal Divisors

- ___54) Review Worksheet
- ___55) Decimal Divisors Lesson
- ___56) Decimal Divisors (GP)
- ___57) Lesson Quiz
- ___58) **Real World Work

3.9 Interpret the Quotient

- ___59) Review Worksheet
- ___60) Lesson Quiz
- ___61) **Party Time!

3.10 Equations with Decimals

- ___62) Review Worksheet
- ___63) Decimal Equations Lesson
- ___64) Decimal Equations (GP)
- ___65) Lesson Quiz
- ___66) **Weight Loss

Word List – 3 Column Notes

Word	Definition	Example
Addend	One of the terms of an addition sentence. A number to be added to another.	<u>7</u> + <u>6</u> = 4
Compatible		
Decimal		
Difference		
Dividend		
Divisor		
Equation		
Estimate		
Expanded Form		
Factor		
Metric		
Minuend		
Quotient		
Remainder		
Round		

Name _____

Word List – 3 Column Notes

Scientific Notation		
Standard Form		
Subtrahend		
Sum		
Variable		
Word Form		
Milli		
Centi		
Deci		
Deka		
Hecto		
Kilo		

Math Journal - Chapter 3 - Decimals

- 3.01 Complete 5 of 19 Math6.org activities related to this lesson (3.1) **or** use sample problems from page 94-95 to create a lesson model. Write the instructions and show the solutions to represent, compare and order decimal numbers.
- 3.02 Estimation is supposed to be an easy thing to do, yet plenty of students refuse to or hate to estimate. Survey at least 10 students (not in sixth grade) and at least 5 adults concerning estimation. (easy, annoying, hard, never do). Present your data in an appropriate graph. (use multiplication to make your adult population equivalent to students surveyed)
- 3.03 Create a flow map (complete with example boxes) to model the process of addition or subtraction of decimals.
- 3.04 Many people use mnemonic devices to memorize things. My Very Eager Mother Just Served Us Nine Pizzas is a famous mnemonic device to assist with the order of the planets. Please Excuse My Dear Aunt Sally will help you to remember the order of operations. Make up a mnemonic device for the Metric roots. (don't steal - King Henry Died By Drinking Chocolate Milk!)
- 3.05 You are an advertising executive. The owners of Scientific Notation want more people to use Scientific Notation and have asked you to create a 30 second commercial to accomplish this goal.
- 3.06 Multiplying Decimals is a simple process, but it must be memorized. Create a flow map to show and model the process of multiplying decimals.
- 3.07 Write a "How To" paragraph that explains how a person could discover the thickness of one page in your text book.
- 3.08 No Entry - Complete Lesson Quiz
- 3.09 Create a word problem that requires the solution to be rounded up to the next whole number.
- 3.10 **Cheerleading:** Keeping the problem balanced while using inverse operations is the part of the process that most students fail to maintain. Create a poem, song or cheer to encourage your classmates to consider keeping a problem balanced.

General Scoring Rubric:

- 0 No Response
- 1 Wrong response
- 2 Weak response
- 3 Showed understanding
- 4 Showed understanding and cited an example
- 5 Showed understanding, cited examples and communicated effectively enough to enable others to understand.

Math Objectives

1.03

Compare and order rational numbers.

Essential Question

Gas stations price gasoline with a decimal to three places rather than as money to 2 places. (\$2.699) or (\$2.69 $\frac{9}{10}$). This gets consumers to read the price as \$2.69 rather than the \$2.70 - that it is. This practice allows your parents to believe they are paying 20 - 30 cents less per tank full, while they actually are paying 2 - 3 cents less than \$2.70 per gallon. Any way that you look at it your parents are saving money on every tank of gas.

Will you argue to support this current practice or force the change to pricing to a full cent?

Wayne County Schools 21st Century Instructional Lesson Plan

Representing, Comparing and Ordering Decimals

NAME:		Subject: Math				
Date:		Grade Level (s): 6				
Standards/Objectives Addressed (NCSCOS)						
1.03 Compare and order rational numbers.						
Essential Question(s) (In student-friendly terms)						
Gas stations price gasoline with a decimal to three places rather than as money to 2 places. (\$2.699) or (\$2.69 9/10). This gets consumers to read the price as \$2.69 rather than the \$2.70 - that it is. This practice allows your parents to believe they are paying 20 - 30 cents less per tank full, while they actually are paying 2 - 3 cents less than \$2.70 per gallon. Any way that you look at it your parents are saving money on every tank of gas. Will you argue to support this current practice or force the change to pricing to a full cent?						
Assess (Look at student data to plan. Use formative and/or summative assessments.)						
Common Errors for Comparing and ordering rational numbers involve a lack of understanding of place values. A quick lesson to review and quiz to assess student skills regarding reading and writing decimal numbers will provide data to determine the direction and extensions of this lesson.						
High Yield Instructional Strategies (check all that apply to the lesson)						
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	Setting objectives and providing feedback	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	Generating and testing hypotheses	
Homework and practice	✓					
Learner Diversity						
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 						
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.						
Engage (Anticipatory Set)						
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 						
Today we will learn to compare and order decimal numbers using place value. We will begin with a review of place values and the place value system. We will use the spinner game to practice.						
Instructional Practices Used in this Lesson						
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers		
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers		✓
Hands-on experiences	✓	Direct Instruction	✓	Modeling		✓
Presentation	✓	Testing		Other: Math6.org		✓

Suggested brained-based learning activities promoting the above Instructional Practices

Think-Pair-Share	✓	Instructional Games	✓	Music/Rhyme/Rhythm/Rap	
Thinking Maps	✓	Student Facilitators	✓	Movement	
Technology Integration	✓	Storytelling		Humor	
Use of visuals	✓	Field Trips(Virtual)		Project/Problem- Based Learning	
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics	
Peer/Self Assessment	✓	Drawing or illustrating		Other:	
Writing/Reflecting/Journals	✓	Simulations/Role Play		Other:	

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Use sample problems from page 94-95 to create a lesson model. Write the instructions and show the solutions to represent, compare and order decimal numbers.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Representing, Comparing and Ordering Decimals

Essential Question:	Gas stations price gasoline with a decimal to three places rather than as money to 2 places. (\$2.699) or ($\$2.69 \frac{9}{10}$). This gets consumers to read the price as \$2.69 rather than the \$2.70 - that it is. This practice allows your parents to believe they are paying 20 - 30 cents less per tank full, while they actually are paying 2 - 3 cents less than \$2.70 per gallon. Any way that you look at it your parents are saving money on every tank of gas. Will you argue to support this current practice or force the change to pricing to a full cent?
Objective (s) Numbers:	1.03
Outcomes:	Compare and order rational numbers.
Materials:	Textbook pages 92-95; Overhead Spinner; Overhead Decimal Place Values
Anticipatory Set:	Today we will learn about decimal values and comparing and ordering decimals.

During the Lesson

Presentation of Information:	
Integration of Other Subjects:	Writing (how to) Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading:	Reading for information and interpretation.
Integration of Technology:	Computer, Projector, PowerPoint, Internet
Modeling:	You can use decimal place value to represent decimals in standard, expanded and word form. Also, decimal values will help you to compare and order decimals.
Differentiation:	504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.
Guided Practice:	Review place value charts. Create an 8 digit place value chart with the hundreds period and decimal values through 10,000th. Have the students represent the following numbers using their charts, standard, expanded and word form. {5.698 ; 32.042 ; 8.16 ; 8.0016} Use a 4x4 to model the steps for comparing and ordering numbers. 1. line up the decimals 2. add 0's to make a box. 3. compare from left to right. Compare data sets from text page 93.

After the Lesson

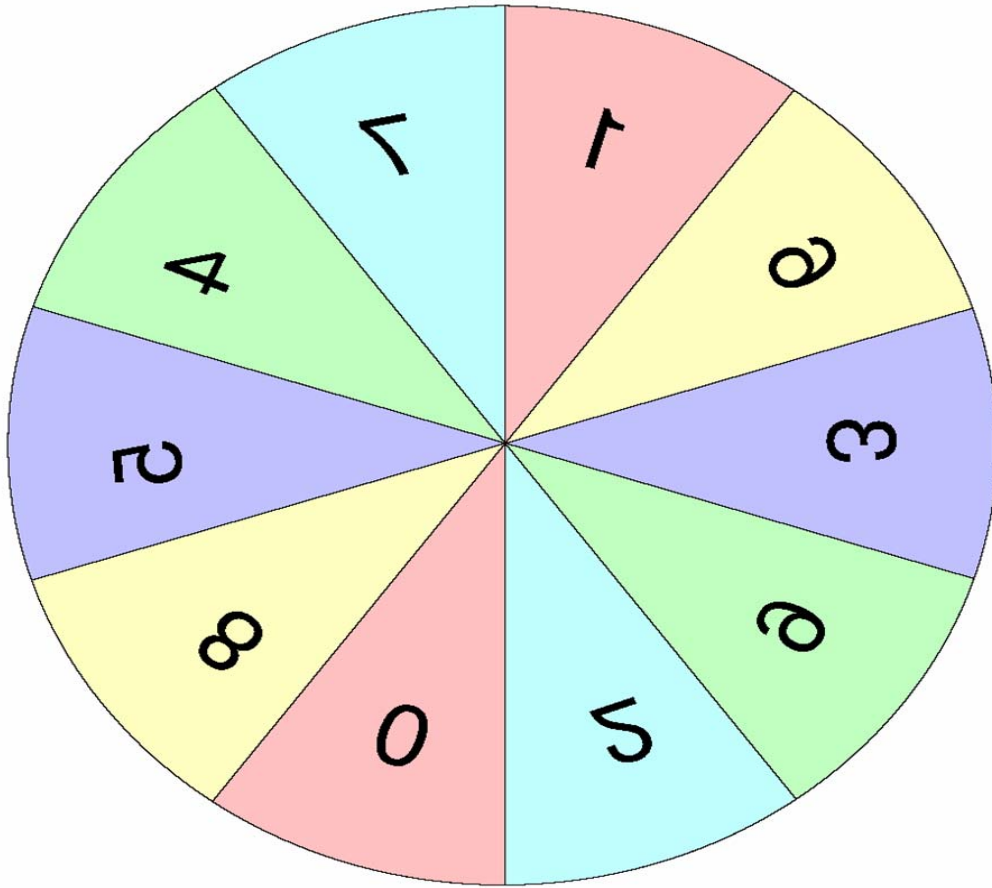
Independent Practice	Text page 94-95 {1-5, 9-13, 17-25 odd, 30-33, 37-42} AIG: {17-27, 30-42} Assign workbook page 3.1
Closure / Assessment:	Complete 5 of 19 Math6.org activities related to this lesson (3.1) or use sample problems from page 94-95 to create a lesson model. Write the instructions and show the solutions to represent, compare and order decimal numbers.
Reflection:	

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities:	There are 15 activities connected with this lesson	
Identify Place Values Lesson	Writing Decimals Lesson	Quiz Bowl - Decimal Values
Identify Place Values GP	Writing Decimals Guided Practice	Millionaire - Decimal Place Value
Place Value Machine	Writing Decimals Quiz	
Place Values Quiz	Ordering Decimals Guided Practice	
Reading Decimals Lesson		

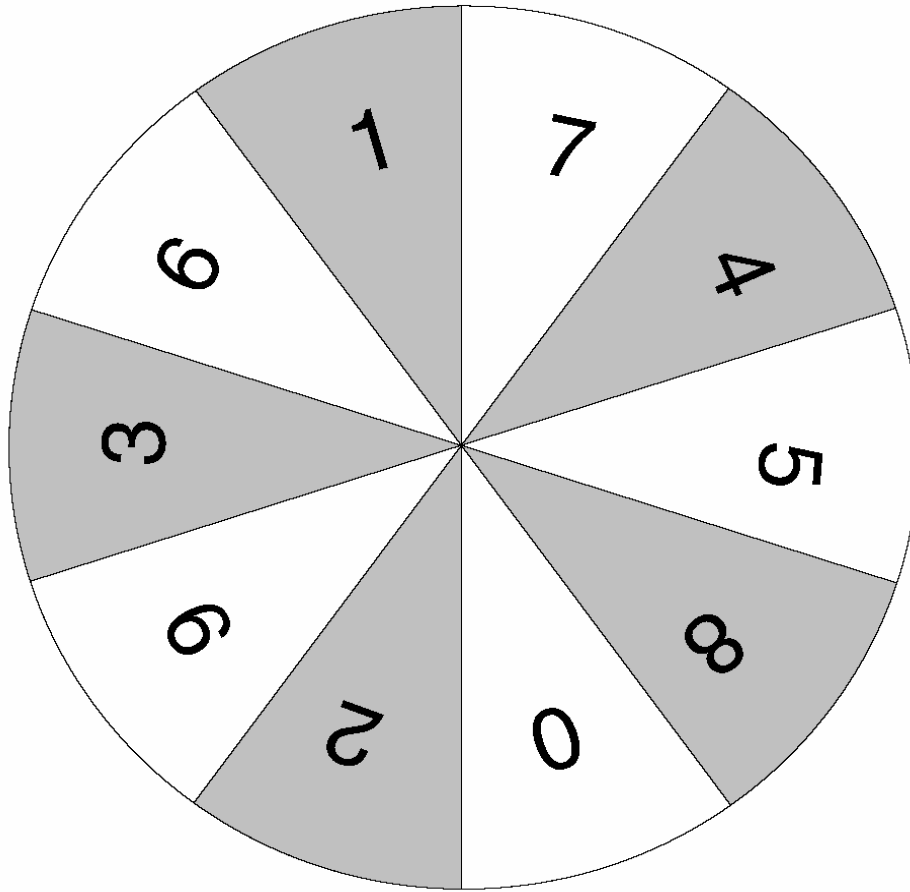
<i>Hundreds</i>	<i>Tens</i>	<i>Ones</i>	<i>.</i>	<i>Tenths</i>	<i>Hundredths</i>	<i>Thousandths</i>	<i>Ten-thousandths</i>
			•				
			•				
			•				
			•				

Overhead Spinner



Ones			Thousands			Millions			Billions		
O	T	H	O	T	H	O	T	H	O	T	H

Place Value Game



Billions			Millions			Thousands			Ones		
H	T	O	H	T	O	H	T	O	H	T	O

Math Objectives

1.01c, 1.04c, 1.07

Make estimates in appropriate situations;
Estimate the results of computations;
Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

Essential Question

Estimation is a skill that adults use all of the time. It is easy and quick. However, to teach estimation, teachers feel the need to see students' work in order to assist them when errors are made. Since this is much more work than simply solving a problem, many students hate to estimate properly and instead solve the problem and round their answers. Can you devise a plan to help your teacher show students how wonderful and simple estimation is while maintaining the ability to assist students as needed?

Wayne County Schools 21st Century Instructional Lesson Plan

Estimating with Decimals

NAME:		Subject: Math			
Date:		Grade Level (s): 6			
Standards/Objectives Addressed (NCSCOS)					
1.01c, 1.04c, 1.07 Make estimates in appropriate situations; Estimate the results of computations; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.					
Essential Question(s) (In student-friendly terms)					
Estimation is a skill that adults use all of the time. It is easy and quick. However, to teach estimation, teachers feel the need to see students' work in order to assist them when errors are made. Since this is much more work than simply solving a problem, many students hate to estimate properly and instead solve the problem and round their answers. Can you devise a plan to help your teacher show students how wonderful and simple estimation is while maintaining the ability to assist students as needed?					
Assess (Look at student data to plan. Use formative and/or summative assessments.)					
Refresh assessment of decimal place values and rounding.					
High Yield Instructional Strategies (check all that apply to the lesson)					
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	✓
Homework and practice	✓				
Learner Diversity					
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 					
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.					
Engage (Anticipatory Set)					
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 					
Today we will learn about estimating decimal sums, differences, products, and quotients. We will review the tricks for estimation with division!					
Instructional Practices Used in this Lesson					
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers	
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers	✓
Hands-on experiences		Direct Instruction	✓	Modeling	✓
Presentation	✓	Testing		Other: Math6.org	✓

Suggested brained-based learning activities promoting the above Instructional Practices					
Think-Pair-Share	✓	Instructional Games	✓	Music/Rhyme/Rhythm/Rap	
Thinking Maps	✓	Student Facilitators		Movement	
Technology Integration	✓	Storytelling		Humor	
Use of visuals	✓	Field Trips(Virtual)		Project/Problem- Based Learning	
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics	
Peer/Self Assessment	✓	Drawing or illustrating		Other:	
Writing/Reflecting/Journals	✓	Simulations/Role Play		Other:	

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Estimation is supposed to be an easy thing to do, yet plenty of students refuse to or hate to estimate. Survey at least 10 students (not in sixth grade) and at least 5 adults concerning estimation. (easy, annoying, hard, never do). Present your data in an appropriate graph. (use multiplication to make your adult population equivalent to students surveyed)

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Estimating with Decimals

Essential Question:	Estimation is a skill that adults use all of the time. It is easy and quick. However, to teach estimation, teachers feel the need to see students' work in order to assist them when errors are made. Since this is much more work than simply solving a problem, many students hate to estimate properly and instead solve the problem and round their answers. Can you devise a plan to help your teacher show students how wonderful and simple estimation is while maintaining the ability to assist students as needed?
Objective (s) Numbers: Outcomes:	1.01c, 1.04c, 1.07 Make estimates in appropriate situations; Estimate the results of computations; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.
Materials:	Textbook pages 96-99
Anticipatory Set:	Today we will learn about estimating decimal sums, differences, products, and quotients.
Presentation of Information: Integration of Other Subjects:	Writing (presentation/display) Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Integration of Technology:	Reading for information and interpretation. Computer, Projector, PowerPoint, Internet
Modeling:	When solving word problems, we often need to write an equation. To do so, you must know what operations are needed. Learning about the key words for translating will help us with this skill.
Differentiation:	504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.
Guided Practice:	Use a 4 x 4. Model Estimation by rounding in blocks 1 & 2. Model Estimation using Compatible numbers in 3 & 4. {26.85 - 1.35 ; 615.07 - 31.64 ; 12.17*0.64 ; 271.2/4.3}

After the Lesson

Independent Practice	Text page 98 - 99 { 1–8, 11–19, 27–30, 36–41} AIG: {12–33, 35–41} Assign workbook page 3.2
Closure / Assessment:	Estimation is supposed to be an easy thing to do, yet plenty of students refuse to or hate to estimate. Survey at least 10 students (not in sixth grade) and at least 5 adults concerning estimation. (easy, annoying, hard, never do). Present your data in an appropriate graph. (use multiplication to make your adult population equivalent to students surveyed)

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities:	There are 10 activities connected with this lesson
Rounding Decimals Lesson	Rounding Decimals Quiz
Rounding Decimals GP	Estimation with Decimals GP
Rounding Decimals Machine	**Estimating Expenses

Math Objectives

1.04b, 1.04c, 1.04d, 5.02

Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Use and evaluate algebraic expressions.

Essential Question

Students A and B are excellent students and get virtually all of their solutions correct. When adding or subtracting decimals, student A adds the zeros to make a box (as the teacher has instructed), while student B believes this is a waste of time and pencil lead. You must choose to support student B or the teacher. Can you explain to student B why he must add zeros to make a box or explain to the teacher why she must allow student B to use his alternate style?

Wayne County Schools 21st Century Instructional Lesson Plan

Adding and Subtracting Decimals

NAME:		Subject: Math			
Date:		Grade Level (s): 6			
Standards/Objectives Addressed (NCSCOS)					
1.04b, 1.04c, 1.04d, 5.02 Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Use and evaluate algebraic expressions.					
Essential Question(s) (In student-friendly terms)					
Students A and B are excellent students and get virtually all of their solutions correct. When adding or subtracting decimals, student A adds the zeros to make a box (as the teacher has instructed), while student B believes this is a waste of time and pencil lead. You must choose to support student B or the teacher. Can you explain to student B why he must add zeros to make a box or explain to the teacher why she must allow student B to use his alternate style?					
Assess (Look at student data to plan. Use formative and/or summative assessments.)					
Examine students' comfort with place value and regrouping.					
High Yield Instructional Strategies (check all that apply to the lesson)					
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	✓
Homework and practice	✓				
Learner Diversity					
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 					
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.					
Engage (Anticipatory Set)					
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 					
Examine student graphs from yesterday's closure. Have BIC graphs placed onto the overhead. Today we will learn how to add and subtract decimals.					
Instructional Practices Used in this Lesson					
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers	
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers	✓
Hands-on experiences		Direct Instruction	✓	Modeling	✓
Presentation	✓	Testing		Other: Math6.org	✓

Suggested brained-based learning activities promoting the above Instructional Practices					
Think-Pair-Share	✓	Instructional Games	✓	Music/Rhyme/Rhythm/Rap	
Thinking Maps	✓	Student Facilitators		Movement	
Technology Integration	✓	Storytelling		Humor	
Use of visuals	✓	Field Trips(Virtual)		Project/Problem- Based Learning	
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics	
Peer/Self Assessment	✓	Drawing or illustrating		Other:	
Writing/Reflecting/Journals	✓	Simulations/Role Play		Other:	

Type(s) of Grouping Used:
 ___small group student pairs whole group individual

Explain, Explore, Elaborate
Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Create a flow map (complete with example boxes) to model the process of addition or subtraction of decimals.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Adding and Subtracting Decimals

- Essential Question:** Students A and B are excellent students and get virtually all of their solutions correct. When adding or subtracting decimals, student A adds the zeros to make a box (as the teacher has instructed), while student B believes this is a waste of time and pencil lead. You must choose to support student B or the teacher. Can you explain to student B why he must add zeros to make a box **or** explain to the teacher why she must allow student B to use his alternate style?
- Objective (s) Numbers:** **1.04b, 1.04c, 1.04d, 5.02**
- Outcomes:** Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Use and evaluate algebraic expressions.
- Materials:** Textbook pages 102-105
- Anticipatory Set:** Today we will learn how to add and subtract decimals.

During the Lesson

- Presentation of Information:**
- Integration of Other Subjects:** Writing (sequencing)
Reading (vocabulary, problem solving, analyzing expectation)
 - Integration of Reading:** Reading for information and interpretation.
 - Integration of Technology:** Computer, Projector, PowerPoint, Internet
- Modeling:** Adding and Subtracting Decimals is just as easy as working with whole numbers. The only difference is the need line up the decimals and add zeros. Does putting the decimals in a line sound challenging?
- Differentiation:** 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.
- Guided Practice:** Use a 4x4. Model Addition and Subtraction of Decimals using 1. Line Up the Decimals 2. Add Zeros to Make a Box 3. Compute 4. Check. { $10.2 - 9.28 =$; $925.6 + 82.87 =$; $12 - 0.64 =$; $271.2 + 43 =$ }

After the Lesson

- Independent Practice** Text page 104 - 105 {1, 2, 11, 12, 25–27, 37, 39, 43–50}
AIG: {2, 12, 25–27, 38–41, 43–50}
Assign workbook page 3.3
- Closure / Assessment:** Create a flow map (complete with example boxes) to model the process of addition or subtraction of decimals.

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **7** activities connected with this lesson

[Add and Subtract Decimals Lesson](#)

[Add and Subtract Decimals Guided Practice](#)

**Banking Basics

Math Objectives

2.01

Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures using appropriate tools.

Essential Question

Many years ago, the nations of the world switched to the metric system and the United States is one of the last nations in the world that still uses the customary system of measurements. The USA thought about switching to the metric system, but has apparently abandoned the plan. Do you support the sovereign right of the USA to hold onto the customary system of measurement? (Explain)

Wayne County Schools 21st Century Instructional Lesson Plan

Decimals and Metric Measurement

NAME:		Subject: Math			
Date:		Grade Level (s): 6			
Standards/Objectives Addressed (NCSCOS)					
2.01 Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures using appropriate tools.					
Essential Question(s) (In student-friendly terms)					
Many years ago, the nations of the world switched to the metric system and the United States is one of the last nations in the world that still uses the customary system of measurements. The USA thought about switching to the metric system, but has apparently abandoned the plan. Do you support the sovereign right of the USA to hold onto the customary system of measurement? (Explain)					
Assess (Look at student data to plan. Use formative and/or summative assessments.)					
Examine students' comfort with multiplication by powers of 10 and movement of the decimal to created smaller and greater numbers.					
High Yield Instructional Strategies (check all that apply to the lesson)					
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	✓
Homework and practice	✓				
Learner Diversity					
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 					
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.					
Engage (Anticipatory Set)					
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 					
Today we will be learning how to multiply and divide with powers of 10. This will enable us to manipulate metric measurements.					
Instructional Practices Used in this Lesson					
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers	
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers	✓
Hands-on experiences		Direct Instruction	✓	Modeling	✓
Presentation	✓	Testing		Other: Math6.org	✓

Suggested brained-based learning activities promoting the above Instructional Practices					
Think-Pair-Share	✓	Instructional Games	✓	Music/Rhyme/Rhythm/Rap	✓
Thinking Maps	✓	Student Facilitators		Movement	
Technology Integration	✓	Storytelling		Humor	
Use of visuals	✓	Field Trips(Virtual)		Project/Problem- Based Learning	
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics	✓
Peer/Self Assessment	✓	Drawing or illustrating	✓	Other:	
Writing/Reflecting/Journals	✓	Simulations/Role Play		Other:	

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Many people use mnemonic devices to memorize things. My Very Eager Mother Just Served Us Nine Pizzas is a famous mnemonic device to assist with the order of the planets. Please Excuse My Dear Aunt Sally will help you to remember the order of operations. Make up a mnemonic device for the Metric roots. (don't steal - King Henry Died By Drinking Chocolate Milk!)

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Decimals and Metric Measurement

Essential Question: Many years ago, the nations of the world switched to the metric system and the United States is one of the last nations in the world that still uses the customary system of measurements. The USA thought about switching to the metric system, but has apparently abandoned the plan. Do you support the sovereign right of the USA to hold onto the customary system of measurement? (Explain)

Objective (s) Numbers: **2.01**
Outcomes: Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures using appropriate tools.

Materials: Textbook pages 106-113

Anticipatory Set: Today we will be learning how to multiply and divide with powers of 10. This will enable us to manipulate metric measurements.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Writing (poetry)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: Since the metric system is a base 10 system, working in metrics is simply a matter of moving the decimal in relation to the root and operation. Multiplication moves to the right and division moves to the left.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use a 4x4. Model multiplying and dividing by powers of 10. { $3.875 \times 10,000$; $248 \div 100$; $27.3 \div 1000$; 47×100 } Have the students copy the metric roots table. Make sure to remind them that memorization help is available at Math6.org. Model converting Metric Measurements using the same process as the powers of 10. { $40 \text{ cm} =$ _____ mm ; $0.7 \text{ km} =$ _____ m ; $4.9 \text{ m} =$ _____ km ; $0.7 \text{ km} =$ _____ cm }

After the Lesson

Independent Practice Text page 108 - 109 {1-7, 12-22, 42-50}
AIG: {3, 7, 12-20 even, 28-32, 38-50}
Assign workbook page 3.4

Closure / Assessment: Many people use mnemonic devices to memorize things. My Very Eager Mother Just Served Us Nine Pizzas is a famous mnemonic device to assist with the order of the planets. Please Excuse My Dear Aunt Sally will help you to remember the order of operations. Make up a mnemonic device for the Metric roots. (don't steal - King Henry Died By Drinking Chocolate Milk!)

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **9** activities connected with this lesson
[Metric Roots Matching](#) [Metric Ladder Guided Practice](#)
[Powers of 10 Guided Practice](#) **Metric Zoo
Powers of 10 Quiz

Choose the best answer.

Write each number in standard form.

1. $0.08 + 0.006 + 0.0003$

- A 0.863 C 863
B 0.0863 D 0.836

2. fourteen and thirty-four hundredths

- A 14.034 C 14.34
B 3,414 D 1.434

3. Order the decimals from least to greatest. 8.7, 8.47, 8.67.

- A 8.7, 8.47, 8.67
B 8.47, 8.67, 8.7
C 8.67, 8.47, 8.7
D 8.47, 8.7, 8.67

4. Estimate 8.234×4.62 .

- A 30 C 40
B 32 D 45

5. Evaluate $8.43 - x$ for $x = 2.3$.

- A 1.6 C 8
B 6.13 D 16

6. Find $4.76 + 3.9$.

- A 5.15 C 5.05
B 8.66 D 43.76

7. Marie ran a 10K race. About how many meters did she run?

- A 10 C 1,000
B 100 D 10,000

8. A door is about 3 _____ high.

- A centimeters C kilometers
B meters D grams

Choose the best answer.

Write each number in standard form.

1. $0.08 + 0.006 + 0.0003$

- A 0.863 C 863
B 0.0863 D 0.836

2. fourteen and thirty-four hundredths

- A 14.034 C 14.34
B 3,414 D 1.434

3. Order the decimals from least to greatest. 8.7, 8.47, 8.67.

- A 8.7, 8.47, 8.67
B 8.47, 8.67, 8.7
C 8.67, 8.47, 8.7
D 8.47, 8.7, 8.67

4. Estimate 8.234×4.62 .

- A 30 C 40
B 32 D 45

5. Evaluate $8.43 - x$ for $x = 2.3$.

- A 1.6 C 8
B 6.13 D 16

6. Find $4.76 + 3.9$.

- A 5.15 C 5.05
B 8.66 D 43.76

7. Marie ran a 10K race. About how many meters did she run?

- A 10 C 1,000
B 100 D 10,000

8. A door is about 3 _____ high.

- A centimeters C kilometers
B meters D grams

Math Objectives

1.06

Use exponential, scientific, and calculator notation to write very large and very small numbers.

Essential Question

How does writing numbers
using Scientific Notation
makes it easier to compare
and order very large and very
small numbers?

(action plan)

Wayne County Schools 21st Century Instructional Lesson Plan

Scientific Notation

NAME:		Subject: Math			
Date:		Grade Level (s): 6			
Standards/Objectives Addressed (NCSCOS)					
1.06 Use exponential, scientific, and calculator notation to write very large and very small numbers.					
Essential Question(s) (In student-friendly terms)					
How does writing numbers using Scientific Notation makes it easier to compare and order very large and very small numbers? (action plan)					
Assess (Look at student data to plan. Use formative and/or summative assessments.)					
Review students' comfort with multiplication by powers of 10 and movement of the decimal to created smaller and greater numbers.					
High Yield Instructional Strategies (check all that apply to the lesson)					
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	✓
Homework and practice	✓				
Learner Diversity					
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 					
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.					
Engage (Anticipatory Set)					
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 					
Today we will learn how to represent very large numbers using scientific notation. This will enable us to manipulate metric measurements.					
Instructional Practices Used in this Lesson					
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers	
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers	✓
Hands-on experiences		Direct Instruction	✓	Modeling	✓
Presentation	✓	Testing		Other: Math6.org	✓

Suggested brained-based learning activities promoting the above Instructional Practices					
Think-Pair-Share	✓	Instructional Games		Music/Rhyme/Rhythm/Rap	✓
Thinking Maps	✓	Student Facilitators		Movement	
Technology Integration	✓	Storytelling		Humor	✓
Use of visuals	✓	Field Trips(Virtual)		Project/Problem- Based Learning	
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics	
Peer/Self Assessment	✓	Drawing or illustrating		Other:	
Writing/Reflecting/Journals	✓	Simulations/Role Play	✓	Other:	

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

You are an advertising executive. The owners of Scientific Notation want more people to use Scientific Notation and have asked you to create a 30 second commercial to accomplish this goal.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Scientific Notation

- Essential Question: How does writing numbers using Scientific Notation makes it easier to compare and order very large and very small numbers? (action plan)
- Objective (s) Numbers: **1.06**
- Outcomes: Use exponential, scientific, and calculator notation to write very large and very small numbers.
- Materials: Textbook pages 114-119
- Anticipatory Set: Today we will learn how to represent very large numbers using scientific notation.

During the Lesson

- Presentation of Information:
- Integration of Other Subjects: Writing (persuasion)
Reading (vocabulary, problem solving, analyzing expectation)
- Integration of Reading: Reading for information and interpretation.
- Integration of Technology: Computer, Projector, PowerPoint, Internet
- Modeling: Scientific notation is used to show extremely large and very small numbers. Our galaxy is about 586,000,000,000,000 miles in diameter. 586 quadrillion is easier to record if you use scientific notation. 5.86×10^{17} . Notice there are 17 places of value to the right of the 5.
- Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.
- Guided Practice: Use a 4x4. In box one record the steps for recording a number using scientific notation. 1. Count the number of places to the right of the first digit. 2. Rewrite the number as a decimal with one place to the left. 3. Multiply by 10 to the power counted in step 1. Practice {34,000 ; 165,000,000,000 ; 654,321,987} **Part 2** Use a 4x4. In box one record the steps for converting a number from scientific notation to standard form. 1. Move the decimal to the right the number of places indicated by the exponent. 2. Practice using { 1.64×10^5 ; 9.0×10^6 ; 8.234×10^3 }

After the Lesson

- Independent Practice Text page 116 - 117 {1–36, 40–42, 51–52, 58–63}
AIG: {16–63}
Assign workbook page 3.5
- Closure / Assessment: You are an advertising executive. The owners of Scientific Notation want more people to use Scientific Notation and have asked you to create a 30 second commercial to accomplish this goal.

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **6** activities connected with this lesson

[Scientific Notation Guided Practice](#)

**The Universe

Math Objectives

1.04b, 1.04c, 1.04d, 1.07

Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

Essential Question

Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Over the next 3 lessons, you will be learning and practicing some of the most challenging computation skills. After you have mastered these skills, you will be asked to decide: Should computation skills be continued or discontinued in all grade levels? (Explain)

Wayne County Schools 21st Century Instructional Lesson Plan

Multiplying Decimals

NAME:		Subject: Math					
Date:		Grade Level (s): 6					
Standards/Objectives Addressed (NCSCOS)							
1.04b, 1.04c, 1.04d, 1.07 Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.							
Essential Question(s) (In student-friendly terms)							
Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Over the next 3 lessons, you will be learning and practicing some of the most challenging computation skills. After you have mastered these skills, you will be asked to decide: Should computation skills be continued or discontinued in all grade levels? (Explain)							
Assess (Look at student data to plan. Use formative and/or summative assessments.)							
Assess students' competence with multiplying whole numbers.							
High Yield Instructional Strategies (check all that apply to the lesson)							
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation		Setting objectives and providing feedback	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	✓	Generating and testing hypotheses	
Homework and practice	✓						
Learner Diversity							
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 							
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.							
Engage (Anticipatory Set)							
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 							
Present Scientific Notation Commercials. Today we will review and remediate the process of multiplying decimals.							
Instructional Practices Used in this Lesson							
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers			
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers			✓
Hands-on experiences		Direct Instruction	✓	Modeling			✓
Presentation	✓	Testing		Other: Math6.org			✓

Suggested brained-based learning activities promoting the above Instructional Practices					
Think-Pair-Share	✓	Instructional Games		Music/Rhyme/Rhythm/Rap	✓
Thinking Maps	✓	Student Facilitators		Movement	
Technology Integration	✓	Storytelling		Humor	✓
Use of visuals	✓	Field Trips(Virtual)		Project/Problem- Based Learning	
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics	
Peer/Self Assessment	✓	Drawing or illustrating		Other:	
Writing/Reflecting/Journals	✓	Simulations/Role Play	✓	Other:	

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Multiplying Decimals is a simple process, but it must be memorized. Create a flow map to show and model the process of multiplying decimals.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Multiplying Decimals

Essential Question: Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Over the next 3 lessons, you will be learning and practicing some of the most challenging computation skills. After you have mastered these skills, you will be asked to decide: Should computation skills be continued or discontinued in all grade levels? (Explain)

Outcomes: **1.04b, 1.04c, 1.04d, 1.07**
Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

Materials: Textbook pages 120-123

Anticipatory Set: Today we will learn the process of multiplying decimals.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Writing (sequencing)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: Model multiplying decimals using grid paper. Help the students to see that the product of a decimal multiplication problem gets smaller.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use a 4x4. In box one record the steps for multiplying by decimals. 1. Count the total number of decimal places in both factors. 2. Drop the decimals and multiply as though they were whole numbers. 3. Return the total number of decimal places counted in step 1. {3.14 * 10.1} {37.3 * 0.5} {4.222 * 1.3}

After the Lesson

Independent Practice Text page 122 -123 {1–25, 38–39, 45–50}
AIG: {18–50}
Assign workbook page 3.6

Closure / Assessment: Multiplying Decimals is a simple process, but it must be memorized. Create a flow map to show and model the process of multiplying decimals.

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **8** activities connected with this lesson

Counting Decimal Places Practice

[Multiply Decimals Lesson](#)

[Multiply Decimals Guided Practice](#)

**Financial News

Math Objectives

1.04b, 1.04d, 1.07

Describe the effect of operations on size; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

Essential Question

Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Over the next 3 lessons, you will be learning and practicing some of the most challenging computation skills. After you have mastered these skills, you will be asked to decide: Should computation skills be continued or discontinued in all grade levels? (Explain)

Wayne County Schools 21st Century Instructional Lesson Plan

Dividing Decimals by Whole Numbers

NAME:		Subject: Math			
Date:		Grade Level (s): 6			
Standards/Objectives Addressed (NCSCOS)					
1.04b, 1.04c, 1.04d, 1.07 Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.					
Essential Question(s) (In student-friendly terms)					
Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Over the next 3 lessons, you will be learning and practicing some of the most challenging computation skills. After you have mastered these skills, you will be asked to decide: Should computation skills be continued or discontinued in all grade levels? (Explain)					
Assess (Look at student data to plan. Use formative and/or summative assessments.)					
Assess students' competence with dividing with whole numbers.					
High Yield Instructional Strategies (check all that apply to the lesson)					
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	✓
Homework and practice	✓				
Learner Diversity					
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 					
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.					
Engage (Anticipatory Set)					
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 					
Present Multiplying Decimals flow maps. Today we will learn about decimals in the dividend.					
Instructional Practices Used in this Lesson					
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers	
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers	✓
Hands-on experiences		Direct Instruction	✓	Modeling	✓
Presentation	✓	Testing		Other: Math6.org	✓

Suggested brained-based learning activities promoting the above Instructional Practices				
Think-Pair-Share	✓	Instructional Games	Music/Rhyme/Rhythm/Rap	
Thinking Maps	✓	Student Facilitators	Movement	
Technology Integration	✓	Storytelling	Humor	
Use of visuals	✓	Field Trips(Virtual)	Project/Problem- Based Learning	✓
Metaphor/Simile/Analogy		Reciprocal Teaching	Mnemonics	
Peer/Self Assessment	✓	Drawing or illustrating	Other:	
Writing/Reflecting/Journals	✓	Simulations/Role Play	Other:	

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Write a "How To" paragraph that explains how a person could discover the thickness of one page in your text book.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Dividing Decimals by Whole Numbers

Essential Question: Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Over the next 2 lessons, you will be learning and practicing the most challenging computation skills. After you have mastered these skills, you will be asked to decide: Should computation skills be continued or discontinued in all grade levels? (Explain)

Objective (s) Numbers: **1.04b, 1.04d, 1.07**
Outcomes: Describe the effect of operations on size; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

Materials: Textbook pages 124-126

Anticipatory Set: Today we will learn about decimals in the dividend.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Writing (How To)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: Dividing Decimals by Whole Numbers is all about keeping your places of value in proper lines.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use a 4x4. In box one record the steps for solving equations involving addition. 1. Bring the decimal straight up into the quotient. 2. Divide normally. 3. Add 0's if necessary. In boxes 2-4 model solutions for { $26.6 \div 14$; $89.76 \div 8$; $12 \div 5$ }

After the Lesson

Independent Practice Text page 125-126 {1–8, 10–17, 27, 30, 34–39}
AIG: {14–17, 19–28, 31–39}
Assign workbook page 3.7

Closure / Assessment: Write a "How To" paragraph that explains how a person could discover the thickness of one page in your text book.

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **7** activities connected with this lesson

[Decimal Dividends Lesson](#)

[Decimal Dividends Guided Practice](#)

**Split the Bill

Math Objectives

1.04b, 1.04d, 1.07

Describe the effect of operations on size; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

Essential Question

Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Over the next 3 lessons, you will be learning and practicing some of the most challenging computation skills. After you have mastered these skills, you will be asked to decide: Should computation skills be continued or discontinued in all grade levels? (Explain)

Wayne County Schools 21st Century Instructional Lesson Plan

Dividing by Decimals

NAME:		Subject: Math				
Date:		Grade Level (s): 6				
Standards/Objectives Addressed (NCSCOS)						
1.04b, 1.04c, 1.04d, 1.07 Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.						
Essential Question(s) (In student-friendly terms)						
Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Over the next 3 lessons, you will be learning and practicing some of the most challenging computation skills. After you have mastered these skills, you will be asked to decide: Should computation skills be continued or discontinued in all grade levels? (Explain)						
Assess (Look at student data to plan. Use formative and/or summative assessments.)						
Assess students' competence with dividing with whole numbers.						
High Yield Instructional Strategies (check all that apply to the lesson)						
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	Setting objectives and providing feedback	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	Generating and testing hypotheses	
Homework and practice	✓					
Learner Diversity						
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 						
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.						
Engage (Anticipatory Set)						
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 						
Review Multiplying Decimals flow maps and pay special attention to decimal movement steps. Today we will learn how to divide by decimals. (decimal divisors)						
Instructional Practices Used in this Lesson						
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers		
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers		✓
Hands-on experiences		Direct Instruction	✓	Modeling		✓
Presentation	✓	Testing		Other: Math6.org		✓

Suggested brained-based learning activities promoting the above Instructional Practices

Think-Pair-Share	✓	Instructional Games	Music/Rhyme/Rhythm/Rap
Thinking Maps	✓	Student Facilitators	Movement
Technology Integration	✓	Storytelling	Humor
Use of visuals	✓	Field Trips(Virtual)	Project/Problem- Based Learning
Metaphor/Simile/Analogy		Reciprocal Teaching	Mnemonics
Peer/Self Assessment	✓	Drawing or illustrating	Other:
Writing/Reflecting/Journals	✓	Simulations/Role Play	Other:

Type(s) of Grouping Used:
 ___small group ✓ student pairs ✓ whole group ✓ individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Complete Lesson Quiz from Math6.org.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Dividing by Decimals

Essential Question:	Current educational philosophies no longer believe that computation skills (by hand) are important. The eighth grade test is 100% calculator active! Should computation skills be continued or discontinued in all grade levels? (Explain)
Objective (s) Numbers: Outcomes:	1.04b, 1.04d, 1.07 Describe the effect of operations on size; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.
Materials:	Textbook pages 127-130
Anticipatory Set:	Today we will learn how to divide by decimals. (decimal divisors)

During the Lesson

Presentation of Information: Integration of Other Subjects:	Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading:	Reading for information and interpretation.
Integration of Technology:	Computer, Projector, PowerPoint, Internet
Modeling:	You can not divide by a fraction! When the divisor is a decimal, it must be changed into a whole number. Simply use the powers of 10 to change the divisor to a whole number. Then multiply the dividend by the same power of 10 to keep the problem balanced.
Differentiation:	504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.
Guided Practice:	Use a 4x4 to model the process with { $29 \div 0.4$; $4.05 \div 0.9$; $2.25 \div 1.8$ }

After the Lesson

Independent Practice	Text page 129-130 {1–6, 9–17, 21–23, 45–54} AIG: {15–17, 21–30, 42–54} Assign workbook page 3.8
Closure / Assessment:	No Entry - Complete Lesson Quiz

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **7** activities connected with this lesson

[Decimal Divisors Lesson](#)

[Decimal Divisors Guided Practice](#)

**Real World Work

Math Objectives

1.04b, 1.04d, 1.07

Describe the effect of operations on size; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

Essential Question

Can you establish a set of rules that will enable my students to always know whether to keep the remainder, round the remainder up or round it down?

(action plan)

Wayne County Schools 21st Century Instructional Lesson Plan

Interpret the Quotient

NAME:		Subject: Math				
Date:		Grade Level (s): 6				
Standards/Objectives Addressed (NCSCOS)						
1.04b, 1.04c, 1.04d, 1.07 Describe the effect of operations on size; Estimate the results of computations; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.						
Essential Question(s) (In student-friendly terms)						
Can you establish a set of rules that will enable my students to always know whether to keep the remainder, round the remainder up or round it down? (action plan)						
Assess (Look at student data to plan. Use formative and/or summative assessments.)						
Assess students' compliance with step one and two of the problem solving method. Are my students reading and visualizing the problems? Will they draw pictures as needed?						
High Yield Instructional Strategies (check all that apply to the lesson)						
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	Setting objectives and providing feedback	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	Generating and testing hypotheses	
Homework and practice	✓					
Learner Diversity						
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 						
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.						
Engage (Anticipatory Set)						
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 						
Review steps for problem solving strategies. Encourage students to illustrate problems for better understanding. Today we will examine word problems to interpret the quotient.						
Instructional Practices Used in this Lesson						
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers		
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers		✓
Hands-on experiences		Direct Instruction	✓	Modeling		✓
Presentation	✓	Testing		Other: Math6.org		✓

Suggested brained-based learning activities promoting the above Instructional Practices				
Think-Pair-Share	✓	Instructional Games		Music/Rhyme/Rhythm/Rap
Thinking Maps	✓	Student Facilitators		Movement
Technology Integration	✓	Storytelling		Humor
Use of visuals	✓	Field Trips(Virtual)		Project/Problem- Based Learning
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics
Peer/Self Assessment	✓	Drawing or illustrating		Other:
Writing/Reflecting/Journals	✓	Simulations/Role Play	✓	Other:

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Create a word problem that requires the solution to be rounded up to the next whole number.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Interpret the Quotient

Essential Question: Can you establish a set of rules that will enable my students to always know whether to keep the remainder, round the remainder up or round it down? (action plan)

Objective (s) Numbers: **1.04b, 1.04d, 1.07**
Outcomes: Describe the effect of operations on size; Judge the reasonableness of solutions; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

Materials: Textbook pages 131-133; Reteaching 3.9

Anticipatory Set: Today we will examine word problems to interpret the quotient.

During the Lesson

Presentation of Information:

Integration of Other Subjects: Writing (narratives)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: When you divide, sometimes you need to interpret the quotient to decide what to do with the remainder. If you are planning to put 67 children on busses, you can not leave some behind. To interpret the quotient, you must decide what the question is asking.
If the problem asks for an exact number – use the entire quotient.
If the problem asks for a number whole groups – drop the remainder.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use Reteaching 3.9 to model this skill.

After the Lesson

Independent Practice Text page 132-133 {1, 4, 8, 13–18}
AIG: {4, 8, 10, 13–18}
Assign workbook page 3.9

Closure / Assessment: Create a word problem that requires the solution to be rounded up to the next whole number.

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **5** activities connected with this lesson

****Party Time!**

LESSON

Reteach**3-9 Interpret the Quotient**

There are three ways the decimal part of a quotient can be interpreted when you solve a problem.

If the question asks for an exact number, use the entire quotient.

If the question asks how many whole groups are needed to put the dividend into a group, round the quotient up to the next whole number.

If the question asks how many whole groups can be made when you divide, drop the decimal part of the quotient.

To interpret the quotient, decide what the question is asking.

In the school library, there are tables that seat 4 students each. If there are 30 students in a class, how many tables are needed to seat all of the students?

To solve, divide 30 by 4.

$$30 \div 4 = 7.5$$

The question is asking how many tables (whole groups) are needed to put all of the students in the class (dividend) into a group.

So, round 7.5 up to the next whole number.

8 tables are needed to seat all of the students.

Interpret the quotient to solve each problem.

1. A recipe that serves 6 requires 9 cups of milk. How much milk is needed for each serving?

2. A storage case holds 24 model cars. Marla has 84 model cars. How many storage cases does she need to store all of her cars?

3. Kenny has \$4.25 to spend at the school carnival. If game tickets are \$0.50 each, how many games can Kenny play?

Math Objectives

2.02, 5.02

Solve problems involving perimeter/circumference and area of plane figures; Use and evaluate algebraic expressions.

Essential Question

About a month ago, you spent several days learning to solve equations with Whole Numbers. Now, you have spent another day learning to solve equations with Decimals. If your teacher had waited for you to master Decimal Computation to teach Equations, you could have saved a day of instruction. Do you support your teacher's decision to break this skill into 2 lessons or do you think she should have combined these and saved the day to teach you something else?

Wayne County Schools 21st Century Instructional Lesson Plan

Solving Decimal Equations

NAME:		Subject: Math			
Date:		Grade Level (s): 6			
Standards/Objectives Addressed (NCSCOS)					
2.02, 5.02 Solve problems involving perimeter/circumference and area of plane figures; Use and evaluate algebraic expressions.					
Essential Question(s) (In student-friendly terms)					
About a month ago, you spent several days learning to solve equations with Whole Numbers. Now, you have spent another day learning to solve equations with Decimals. If your teacher had waited for you to master Decimal Computation to teach Equations, you could have saved a day of instruction. Do you support your teacher's decision to break this skill into 2 lessons or do you think she should have combined these and saved the day to teach you something else? (Explain)					
Assess (Look at student data to plan. Use formative and/or summative assessments.)					
Review student understanding of inverse operations and inverting the order of operations.					
High Yield Instructional Strategies (check all that apply to the lesson)					
Identifying similarities and differences	✓	Reinforcing effort and providing recognition	✓	Nonlinguistic representation	✓
Questions, cues, and advance organizers	✓	Summarizing and note taking	✓	Cooperative learning	✓
Homework and practice	✓				
Learner Diversity					
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 					
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes. Differentiated assignments and practice will focus on remediation and enrichment of lower and higher ability groups.					
Engage (Anticipatory Set)					
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 					
Draw equation balances. Today we will work with solving equations that involve decimal constants.					
Instructional Practices Used in this Lesson					
Coaching	✓	Providing Directions/ Instructions	✓	Learning Centers	
Discussion	✓	Providing opportunities for practice	✓	Teacher-directed Questions and Answers	✓
Hands-on experiences		Direct Instruction	✓	Modeling	✓
Presentation	✓	Testing		Other: Math6.org	✓

Suggested brained-based learning activities promoting the above Instructional Practices					
Think-Pair-Share	✓	Instructional Games		Music/Rhyme/Rhythm/Rap	✓
Thinking Maps	✓	Student Facilitators		Movement	✓
Technology Integration	✓	Storytelling		Humor	✓
Use of visuals	✓	Field Trips(Virtual)		Project/Problem- Based Learning	
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics	
Peer/Self Assessment	✓	Drawing or illustrating		Other:	
Writing/Reflecting/Journals	✓	Simulations/Role Play	✓	Other:	

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Cheerleading: Keeping the problem balanced while using inverse operations is the part of the process that most students fail to maintain. Create a poem, song or cheer to encourage your classmates to consider keeping a problem balanced.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Solving Decimal Equations

Essential Question:	About a month ago, you spent several days learning to solve equations with Whole Numbers. Now, you have spent another day learning to solve equations with Decimals. If your teacher had waited for you to master Decimal Computation to teach Equations, you could have saved a day of instruction. Do you support your teacher's decision to break this skill into 2 lessons or do you think she should have combined these and saved the day to teach you something else? (Explain)
Objective (s) Numbers:	2.02, 5.02
Outcomes:	Solve problems involving perimeter/circumference and area of plane figures; Use and evaluate algebraic expressions.
Materials:	Textbook pages 134-138
Anticipatory Set:	Today we will work with solving equations that involve decimal constants.

During the Lesson

Presentation of Information:	
Integration of Other Subjects:	Writing (poetry) Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading:	Reading for information and interpretation.
Integration of Technology:	Computer, Projector, PowerPoint, Internet
Modeling:	Solving equations with decimals uses the same process as the other algebra that you have studied this year. 1. Simplify anything that can be simplified. 2. Use inverse operations to get the variable alone. (Keep the problem balanced!) 3. Use substitution to check your answer.
Differentiation:	504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.
Guided Practice:	Use a 4x4 to model the solutions for $\{n + 3.6 = 9.4 ; 4n = 3.2 ; n \div 9 = 1.4 ; 3n - 6 = 22\}$

After the Lesson

Independent Practice	Text page 136-137 { 1–20, 34, 38, 42–47} AIG: {21–47} Assign workbook page 3.10
Closure / Assessment:	Cheerleading: Keeping the problem balanced while using inverse operations is the part of the process that most students fail to maintain. Create a poem, song or cheer to encourage your classmates to consider keeping a problem balanced.

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **7** activities connected with this lesson

[Decimal Equations Lesson](#)

[Decimal Equations Guided Practice](#)

**Weight Loss

Math Objectives

1.03, 1.04b, 1.04d, 1.06, 1.07, 2.02, 5.02;

Compare and order rational numbers; Describe the effect of operations on size; Judge the reasonableness of solutions; Use exponential, scientific, and calculator notation to write very large and very small numbers; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil; Solve problems involving perimeter/circumference and area of plane figures; Use and evaluate algebraic expressions.

Essential Question

What steps do you think should be taken to ensure that a person is prepared for examination on a set of skills?

(action plan)

Wayne County Schools 21st Century Instructional Lesson Plan

Decimals Concepts Review

NAME:		Subject: Math	
Date:		Grade Level (s): 6	
Standards/Objectives Addressed (NCSCOS)			
1.03, 1.04b, 1.04d, 1.06, 1.07, 2.02, 5.02; Compare and order rational numbers; Describe the effect of operations on size; Judge the reasonableness of solutions; Use exponential, scientific, and calculator notation to write very large and very small numbers; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil; Solve problems involving perimeter/circumference and area of plane figures; Use and evaluate algebraic expressions.			
Essential Question(s) (In student-friendly terms)			
What steps do you think should be taken to ensure that a person is prepared for examination on a set of skills? (action plan)			
Assess (Look at student data to plan. Use formative and/or summative assessments.)			
Examine student performance on various skill assessments, journals and projects.			
High Yield Instructional Strategies (check all that apply to the lesson)			
Identifying similarities and differences		Reinforcing effort and providing recognition	✓
Questions, cues, and advance organizers		Summarizing and note taking	
Homework and practice	✓		
		Nonlinguistic representation	
		Cooperative learning	✓
		Setting objectives and providing feedback	✓
		Generating and testing hypotheses	
Learner Diversity			
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 			
504 modifications ET and RA. Additional student and teacher modeling, paired learning groups, and concrete representations will help to guide all students to reach expected outcomes.			
Engage (Anticipatory Set)			
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 			
Today we will review the skills that we have been studying during this unit. We will practice test taking skills and remediate those skills about which we don't feel as comfortable as others.			
Instructional Practices Used in this Lesson			
Coaching	✓	Providing Directions/ Instructions	✓
Discussion		Providing opportunities for practice	✓
Hands-on experiences		Direct Instruction	
Presentation		Testing	
		Learning Centers	
		Teacher-directed Questions and Answers	
		Modeling	
		Other: Math6.org	✓

Suggested brained-based learning activities promoting the above Instructional Practices				
Think-Pair-Share	✓	Instructional Games		Music/Rhyme/Rhythm/Rap
Thinking Maps		Student Facilitators	✓	Movement
Technology Integration	✓	Storytelling		Humor
Use of visuals		Field Trips(Virtual)		Project/Problem- Based Learning
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics
Peer/Self Assessment	✓	Drawing or illustrating		Other:
Writing/Reflecting/Journals	✓	Simulations/Role Play		Other:

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Have co-operative learning groups review and discuss their answers before turning their papers in for correction by the teacher.

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Decimals Concepts Review

Essential Question: What steps do you think should be taken to ensure that a person is prepared for examination on a set of skills? (action plan)

Objective (s) Numbers: **1.03, 1.04b, 1.04d, 1.06, 1.07, 2.02, 5.02;**
Outcomes: Compare and order rational numbers; Describe the effect of operations on size; Judge the reasonableness of solutions; Use exponential, scientific, and calculator notation to write very large and very small numbers; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil; Solve problems involving perimeter/circumference and area of plane figures; Use and evaluate algebraic expressions.

Materials: Textbook pages 144-147; Test Form B

Anticipatory Set: Today we will review the skills that we have been studying during this unit. We will practice test taking skills and remediate those skills about which we don't feel as comfortable as others.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: Discuss the value of careful review, the process that should occur when errors are made and the importance of reviewing material that students are less comfortable with.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Discuss Instructions for the review on pages 144-146. Have the students review the Headings and address and questions or requests for immediate remediation.

After the Lesson

Independent Practice Text page 144-146 {1-54}
AIG: {1-54}
Assign Test Form B

Closure / Assessment: Have co-operative learning groups review and discuss their answers before turning their papers in for correction by the teacher.

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **many** activities connected with this lesson

[Vocabulary Matching Practice](#)

[Practice Test](#)

[Decimals Quiz Bowl](#)

[Decimals Millionaire](#)

CHAPTER

3

Chapter Test**Form B**

Write each in standard form, expanded form, and words.

1. 6.024

2. four and seven thousandths

Order the decimals from least to greatest.

3. 13.6, 13.2, 13.62

4. 3.87, 3.2, 3.45

Estimate. Round to the indicated place value.

5. $36.134 + 7.65$; tenths

6. $2.5864 - 2.0356$; hundredths

Estimate each product or quotient.

7. $71.825 \div 8.01$

8. 120.4×2.985

Estimate a range for the sum.

9. $9.65 + 30.1 + 5.835$

Estimate a range for the sum.

10. $10.435 + 30.4 + 89.0$

Find each sum or difference.

11. $11.54 + 17.01$ _____

12. $41.8 - 6.7$ _____

Evaluate $3.79 + x$ for each value of x .

13. $x = 2.54$ _____

14. $x = 0.354$ _____

Multiply or divide.

15. $4.12 \times 1,000$

16. $827.5 \div 10^5$

Use the abbreviation for the most appropriate metric unit.

17. A bathtub holds approximately 106
_____.18. The distance of a long distance race is 6.1
_____.

Convert each measure.

19. $0.97 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$

20. $7,000 \text{ L} = \underline{\hspace{2cm}} \text{ kL}$

CHAPTER 3 **Chapter Test**
Form B, continued

Write each number in scientific notation.

21. 62,000

22. 2,357,000

Write each number in standard form.

23. 7.421×10^6

24. 4.85×10^4

Find each product.

25. 1.72×0.3

26. 8.4×0.003

Evaluate $23x$ for each value of x .

27. $x = 2.55$

28. $x = 3.612$

Find each quotient.

29. $19.5 \div 6$

30. $8.88 \div 3$

Evaluate the expression $7.2 \div x$ for each value of x .

31. $x = 5$

32. $x = 0.06$

Find each quotient.

33. $7.82 \div 3.4$

34. $17.5 \div 0.28$

Solve each equation.

35. $y - 5.4 = 7.5$

36. $6.6j = 26.4$

37. $\frac{f}{11} = 3.4$

38. $23.6 - h = 18.1$

39. David bought 1,000 feet of aluminum striping for \$220. What did he pay per foot?

40. At \$1.25 per dozen how many whole dozens of eggs can be bought for \$6.00?

Essential Question

If you could press restart,
what would you do
differently to prepare for
today's exam?

(decision making)

Wayne County Schools 21st Century Instructional Lesson Plan

Whole Numbers Assessment

NAME:		Subject: Math	
Date:		Grade Level (s): 6	
Standards/Objectives Addressed (NCSCOS)			
1.03, 1.04b, 1.04d, 1.06, 1.07, 2.02, 5.02; Compare and order rational numbers; Describe the effect of operations on size; Judge the reasonableness of solutions; Use exponential, scientific, and calculator notation to write very large and very small numbers; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil; Solve problems involving perimeter/circumference and area of plane figures; Use and evaluate algebraic expressions.			
Essential Question(s) (In student-friendly terms)			
If you could press restart, what would you do differently to prepare for today's exam? (decision making)			
Assess (Look at student data to plan. Use formative and/or summative assessments.)			
Examine student performance on concepts review.			
High Yield Instructional Strategies (check all that apply to the lesson)			
Identifying similarities and differences	Reinforcing effort and providing recognition	<input checked="" type="checkbox"/>	Nonlinguistic representation
Questions, cues, and advance organizers	Summarizing and note taking	<input type="checkbox"/>	Cooperative learning
Homework and practice		<input type="checkbox"/>	Setting objectives and providing feedback
		<input type="checkbox"/>	Generating and testing hypotheses
Learner Diversity			
<ul style="list-style-type: none"> How will you differentiate to meet the needs of all learners in your class? 			
504 modifications ET and RA.			
Engage (Anticipatory Set)			
<ul style="list-style-type: none"> Capture the students' attention, stimulate their thinking and help them access prior knowledge. Consider novelty, meaning and emotion. 			
Today we will assess our mastery of Decimals.			
Instructional Practices Used in this Lesson			
Coaching	Providing Directions/ Instructions	<input checked="" type="checkbox"/>	Learning Centers
Discussion	Providing opportunities for practice	<input type="checkbox"/>	Teacher-directed Questions and Answers
Hands-on experiences	Direct Instruction	<input type="checkbox"/>	Modeling
Presentation	Testing	<input type="checkbox"/>	Other: Math6.org
		<input checked="" type="checkbox"/>	

Suggested brained-based learning activities promoting the above Instructional Practices				
Think-Pair-Share		Instructional Games		Music/Rhyme/Rhythm/Rap
Thinking Maps		Student Facilitators		Movement
Technology Integration	✓	Storytelling		Humor
Use of visuals		Field Trips(Virtual)		Project/Problem- Based Learning
Metaphor/Simile/Analogy		Reciprocal Teaching		Mnemonics
Peer/Self Assessment		Drawing or illustrating		Other:
Writing/Reflecting/Journals	✓	Simulations/Role Play		Other:

Type(s) of Grouping Used:

small group student pairs whole group individual

Explain, Explore, Elaborate

Content Chunks: How will you divide and teach the content?

- Transitions should be used every 5-15 minutes to keep the students' brains engaged.
- Involve students in an analysis of their explorations.
- Use reflective activities to clarify and modify student understanding.
- Give students time to think, plan, investigate and organize collected information.
- Give students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real-world situation.

See next page for instructional detail.

Evaluate (Feedback/Closure)

- Evaluate throughout the lesson. Are students able to answer the Essential Question(s)?
- Present students with a scoring guide (such as a rubric) at the beginning to self-assess.
- What assessment(s) will be used to be sure the students are successful?

Write a paragraph evaluation of your expected performance on this test. What did you do well on? What did you have trouble with? How did you prepare for this test and what would you like to do differently for the next exam?

Describe, Analyze, Reflect:

- How effective was the lesson? How did the strategies help the students deepen their understanding? Cite evidence of student work, performance, behaviors, and/or remarks to support your view.
- What caused the lesson to go well? What challenges did you encounter?
- What did you do to contribute to the lesson's effectiveness?
- What learning did you take from this lesson to apply to future lessons? What would you do differently next time?

Date: _____

Time Frame: **80 minutes**

Decimals Assessment

Essential Question:	If you could press restart, what would you do differently to prepare for today's exam? (decision making)
Objective (s) Numbers:	1.03, 1.04b, 1.04d, 1.06, 1.07, 2.02, 5.02;
Outcomes:	Compare and order rational numbers; Describe the effect of operations on size; Judge the reasonableness of solutions; Use exponential, scientific, and calculator notation to write very large and very small numbers; Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil; Solve problems involving perimeter/circumference and area of plane figures; Use and evaluate algebraic expressions.
Materials:	Cumulative Assessment (Form B)
Anticipatory Set:	Today we will assess our mastery of Decimals.

During the Lesson

Presentation of Information:	
Integration of Other Subjects:	Writing (evaluation) Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading:	Reading for information and interpretation.
Integration of Technology:	Computer, Projector, PowerPoint, Internet
Modeling:	Review the Practice Test, answer questions and model answers.
Differentiation:	504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.
Guided Practice:	Discuss the Instructions.

After the Lesson

Independent Practice	Assign Cumulative Review Test Form B
Closure / Assessment:	Write a paragraph evaluation of your expected performance on this test. What did you do well on? What did you have trouble with? How did you prepare for this test and what would you like to do differently for the next exam? Choose a Journal entry to share with your class.
Reflection:	
Integration with School-wide Focus:	Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **many** activities connected with this lesson
[Vocabulary Matching Practice](#)
[Practice Test](#)
[Decimals Quiz Bowl](#)
[Decimals Millionaire](#)

CHAPTER
3 **Cumulative Test**
Form B

Choose the best answer.

1. Which number is the greatest?
A 4,564,321,000 **C** 4,563,761,958
B 4,569,435,982 **D** 4,509,438,095

2. Which number is eight million, five hundred twelve thousand, forty-two in standard form?
F 8,512,420 **H** 8,051,242
G 8,512,042 **J** 8,005,124

3. Which number has a 6 in the ten-thousands place?
A 865,943 **C** 236,590
B 507,894 **D** 657,321

4.

County	Population
Leon	239,452
Duval	778,879
Polk	483,924
Volusia	443,343

Which lists the counties in order from least to greatest population?

- F** Leon, Duval, Polk, Volusia
G Duval, Polk, Leon, Volusia
H Leon, Volusia, Duval, Polk
J Leon, Volusia, Polk, Duval
5. Estimate by rounding to the place value indicated: $6,523 - 3,245$; hundreds.
A $6,500 - 3,200 = 3,300$
B $6,000 - 3,000 = 3,000$
C $7,000 - 3,000 = 4,000$
D $6,500 - 3,300 = 3,200$

6. What is the value of $6^2 - (9 - 5) \div 4$?
F 8 **H** 39
G 35 **J** 42

7. What is the value of 6^4 ?
A 24 **C** 216
B 36 **D** 1,296

8. What is $7 \times 7 \times 7 \times 7$ written in exponential form?
F 7^1 **H** 4^7
G 7^3 **J** 7^4

9. Use mental math to find the sum of $18 + 2 + 37 + 3$.
A 20 **C** 40
B 30 **D** 60

10. $(12 + 14) + 9 = 9 + (12 + 14)$ is an example of which property?
F Associative **H** Distributive
G Commutative **J** Exponential

11. Meredith works 11 hours per day, 6 days a week. How many hours does she work in a 5-week period?
A 66 hours **C** 330 hours
B 132 hours **D** 462 hours

12. Which is a solution to the equation $\frac{x}{7} = 12$?
F $x = 19$ **H** $x = 72$
G $x = 60$ **J** $x = 84$

13. Estimate $7.42 + 15.07$.
A $7 + 15 = 22$ **C** $6 + 15 = 21$
B $7 + 16 = 23$ **D** $6 + 14 = 20$

CHAPTER 3 **Cumulative Test**
Form B, continued

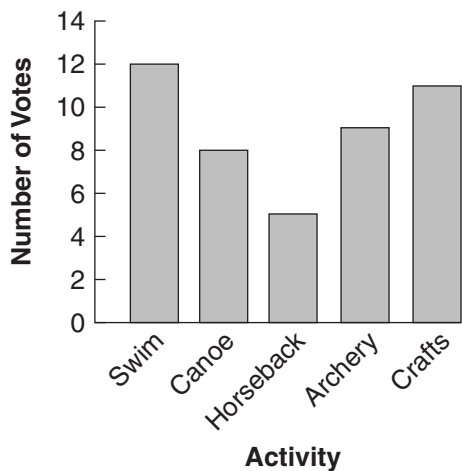
14. A special camera film costs \$8 per roll. If you spent \$120 on this film, how many rolls did you buy?
F 12 **H** 15
G 14 **J** 960

15. Identify the pattern in this sequence: 12, 17, 15, 20, 18, 23...
A +5, -1 **C** -2, + 5
B +5, -2 **D** -1, + 6

16. Find the pattern and replace the ? with the missing terms: 9, 11, 13, ?, 17, ?, 21, 23.
F 15, 19 **H** 15, 21
G 17, 21 **J** 16, 19

The bar graph shows the 6th graders' favorite summer day camp activities.

Day Camp Favorite Activities



17. How many more students chose crafts than horseback riding?
A 4 **C** 6
B 5 **D** 7

18. How many students voted for swimming?
F 10 **H** 12
G 11 **J** 13

19. Which activity had 3 more votes than horseback riding?
A canoeing **C** swimming
B crafts **D** archery

20. Which is a solution to the equation $12a = 144$?
F $a = 9$ **H** $a = 11$
G $a = 10$ **J** $a = 12$

21. Which is a solution to the equation $w + 134 = 543$?
A $w = 109$ **C** $w = 409$
B $w = 210$ **D** $w = 677$

22. Which is a solution to the equation $y - 38 = 86$?
F $y = 48$ **H** $y = 134$
G $y = 124$ **J** $y = 3,268$

23. Find the missing value in the table.

a	$9a + 2$
8	74
12	?

- A** 108 **C** 116
B 110 **D** 914

24. Which means "6 times a "?
F $6 + a$ **H** $6a$
G $6 - a$ **J** $6 \div a$

CHAPTER

3

Cumulative Test**Form B, continued**

25. Which of the following is a phrase for $9n \div 2$?
- A the product of 9 times n and 2
B the product of 9 minus n and 2
C the quotient of nine times n and 2
D the quotient of n and 2
26. Evaluate $11h - 6$ for $h = 6$.
- F 60 H 110
G 66 J 116
27. Brigetta's car will hold 25 cartons of books. What is the least number of trips that she must make in order to deliver 250 cartons?
- A 5 C 15
B 10 D 20
28. Which value of x makes the equation true? $x - 9 = 12$
- F $x = 3$ H $x = 21$
G $x = 15$ J $x = 108$
29. Which value of x makes the equation true? $7x = 56$
- A $x = 8$ C $x = 12$
B $x = 10$ D $x = 49$
30. The area of a rectangular patio is 450 square feet. The width is 18 feet. What is its length?
- F 5 feet H 25 feet
G 10 feet J 45 feet
31. Which of the following has a solution of 18?
- A $w + 10 = 9$ C $y - 18 = 35$
B $18a = 324$ D $\frac{p}{7} = 3$
32. What is the product of 0.2×4.25 ?
- F 0.85 H 85
G 8.5 J 850
33. Which number is the greatest?
- A 20.125 C 20.250
B 20.2 D 20.24
34. Which is 43,800,000 written in scientific notation?
- F 4.3×10^5 H 4.38×10^6
G 4.38×5^6 J 4.38×10^7
35. Which measurement is equivalent to 880 cm?
- A 88 mm C 8.8 m
B 0.88 km D 8,800 km
36. The area of a rectangle is 49.875 cm^2 . Its length is 10.5 cm. Solve $10.5w = 49.875$ to find the width.
- F 3.75 cm H 5 cm
G 4.75 cm J 0.475 cm
37. Mr. Maro is building a fence. The fencing comes in sections, each 2.5 meters wide. If the fence is to be 30 meters long, how many sections of fencing does he need?
- A 11 C 10
B 12 D 9

CHAPTER
3 **Cumulative Test**
Form B, continued

38. What is 3.204 written in words?
F three and two hundred four tenths
G three and two hundred four hundredths
H three thousand two hundred four
J three and two hundred four thousandths
39. Which set of decimals is ordered least to greatest?
A 15.8, 15.08, 15.78
B 15.08, 15.78, 15.8
C 15.8, 15.78, 15.08
D 15.08, 15.8, 15.78
40. What is 4.86×10^4 written in standard form?
F 48,600
G 486,000
H 4,860,000
J 48,600,000
41. Lee and two friends went to the circus. They each bought a stuffed tiger. The total bill was \$47.97. How much did each tiger cost?
A \$12.99 C \$15.99
B \$14.21 D \$16.23
42. Solve $w - 7.6 = 4.6$.
F $w = 12.2$ H $w = 3$
G $w = 1.122$ J $w = 2.3$
43. Convert 4,900 mL = _____ L.
A 490 L C 4.9 L
B 49 L D 0.49 L
44. Find $18 - 0.4$.
F 18.6 H 17.6
G 18.4 J 17.4
45. Solve $8x = 76.8$.
A $x = 9$ C $x = 10.2$
B $x = 9.6$ D $x = 11.1$
46. A piece of fabric is 25.5 in. wide. How many whole strips, each 2.25 in. wide, can be cut from the fabric?
F 10 H 12
G 11 J 13
47. A surveyor marks off 15 small adjacent lots each 0.1 mile wide. What is the total width in miles?
A 1 mile C 1.75 miles
B 1.5 miles D 0.15 mile
48. It costs \$105.00 to buy 7 pieces of sewer pipe. What is the cost per piece of pipe?
F \$14.00 H \$15.00
G \$14.50 J \$16.00
49. Rwanda had \$342.15 in her checking account. She wrote a check to Foodtown for \$62.15. How much does she now have in her checking account?
A \$176.15 C \$317.00
B \$280.00 D \$404.30
50. Solve $\frac{x}{9} = 8.4$.
F $x = 72$ H $x = 78.3$
G $x = 75.6$ J $x = 82.1$

Name _____

Decimals Assessment

1	A	B	C	D
2	F	G	H	J
3	A	B	C	D
4	F	G	H	J
5	A	B	C	D
6	F	G	H	J
7	A	B	C	D
8	F	G	H	J
9	A	B	C	D
10	F	G	H	J
11	A	B	C	D
12	F	G	H	J
13	A	B	C	D
14	F	G	H	J
15	A	B	C	D
16	F	G	H	J
17	A	B	C	D
18	F	G	H	J
19	A	B	C	D
20	F	G	H	J
21	A	B	C	D
22	F	G	H	J
23	A	B	C	D
24	F	G	H	J

25	A	B	C	D
26	F	G	H	J
27	A	B	C	D
28	F	G	H	J
29	A	B	C	D
30	F	G	H	J
31	A	B	C	D
32	F	G	H	J
33	A	B	C	D
34	F	G	H	J
35	A	B	C	D
36	F	G	H	J
37	A	B	C	D
38	F	G	H	J
39	A	B	C	D
40	F	G	H	J
41	A	B	C	D
42	F	G	H	J
43	A	B	C	D
44	F	G	H	J
45	A	B	C	D
46	F	G	H	J
47	A	B	C	D
48	F	G	H	J
49	A	B	C	D
50	F	G	H	J

Name _____

Decimals Assessment

1	A	B	C	D
2	F	G	H	J
3	A	B	C	D
4	F	G	H	J
5	A	B	C	D
6	F	G	H	J
7	A	B	C	D
8	F	G	H	J
9	A	B	C	D
10	F	G	H	J
11	A	B	C	D
12	F	G	H	J
13	A	B	C	D
14	F	G	H	J
15	A	B	C	D
16	F	G	H	J
17	A	B	C	D
18	F	G	H	J
19	A	B	C	D
20	F	G	H	J
21	A	B	C	D
22	F	G	H	J
23	A	B	C	D
24	F	G	H	J

25	A	B	C	D
26	F	G	H	J
27	A	B	C	D
28	F	G	H	J
29	A	B	C	D
30	F	G	H	J
31	A	B	C	D
32	F	G	H	J
33	A	B	C	D
34	F	G	H	J
35	A	B	C	D
36	F	G	H	J
37	A	B	C	D
38	F	G	H	J
39	A	B	C	D
40	F	G	H	J
41	A	B	C	D
42	F	G	H	J
43	A	B	C	D
44	F	G	H	J
45	A	B	C	D
46	F	G	H	J
47	A	B	C	D
48	F	G	H	J
49	A	B	C	D
50	F	G	H	J

Decimals Assessment

1	A		C	D
2	F		H	J
3		B	C	D
4	F	G	H	
5		B	C	D
6	F		H	J
7	A	B	C	
8	F	G	H	
9	A	B	C	
10	F		H	J
11	A	B		D
12	F	G	H	
13		B	C	D
14	F	G		J
15	A		C	D
16		G	H	J
17	A	B		D
18	F	G		J
19		B	C	D
20	F	G	H	
21	A	B		D
22	F		H	J
23	A		C	D
24	F	G		J

25	A	B		D
26		G	H	J
27	A		C	D
28	F	G		J
29		B	C	D
30	F	G		J
31	A		C	D
32		G	H	J
33	A	B		D
34	F	G	H	
35	A	B		D
36	F		H	J
37	A		C	D
38	F	G	H	
39	A		C	D
40		G	H	J
41	A	B		D
42		G	H	J
43	A	B		D
44	F	G		J
45	A		C	D
46	F		H	J
47	A		C	D
48	F	G		J
49	A		C	D
50	F		H	J

Chapter 3 Assessment

20	100%
19	95%
18	90%
17	85%
16	80%
15	75%
14	70%
13	65%
12	60%
11	55%
10	50%
9	45%
8	40%
7	35%
6	30%
5	25%
4	20%
3	15%
2	10%

Math Assessment Scoring Rubric - Chapter ____

- 10% Vocabulary 3 column notes
- 10% Math Journal (2 entries - 1 presented)
- 20% Cumulative Assessment (curved)
- 60% Current Chapter Assessment Questions
- 5% Signed Math6.org Activity Sheet (Extra Credit)

Student _____

- _____ Vocabulary 3 column notes
- _____ Math Journal (2 entries - 1 presented)
- _____ Cumulative Assessment (curved)
- _____ Current Chapter Assessment Questions
- _____ Signed Math6.org Activity Sheet (Extra Credit)
- _____ Total

Math Assessment Scoring Rubric - Chapter ____

- 10% Vocabulary 3 column notes
- 10% Math Journal (2 entries - 1 presented)
- 20% Cumulative Assessment (curved)
- 60% Current Chapter Assessment Questions
- 5% Signed Math6.org Activity Sheet (Extra Credit)

Student _____

- _____ Vocabulary 3 column notes
- _____ Math Journal (2 entries - 1 presented)
- _____ Cumulative Assessment (curved)
- _____ Current Chapter Assessment Questions
- _____ Signed Math6.org Activity Sheet (Extra Credit)
- _____ Total

Math Assessment Scoring Rubric - Chapter ____

- 10% Vocabulary 3 column notes
- 10% Math Journal (2 entries - 1 presented)
- 20% Cumulative Assessment (curved)
- 60% Current Chapter Assessment Questions
- 5% Signed Math6.org Activity Sheet (Extra Credit)

Student _____

- _____ Vocabulary 3 column notes
- _____ Math Journal (2 entries - 1 presented)
- _____ Cumulative Assessment (curved)
- _____ Current Chapter Assessment Questions
- _____ Signed Math6.org Activity Sheet (Extra Credit)
- _____ Total

Math Assessment Scoring Rubric - Chapter ____

- 10% Vocabulary 3 column notes
- 10% Math Journal (2 entries - 1 presented)
- 20% Cumulative Assessment (curved)
- 60% Current Chapter Assessment Questions
- 5% Signed Math6.org Activity Sheet (Extra Credit)

Student _____

- _____ Vocabulary 3 column notes
- _____ Math Journal (2 entries - 1 presented)
- _____ Cumulative Assessment (curved)
- _____ Current Chapter Assessment Questions
- _____ Signed Math6.org Activity Sheet (Extra Credit)
- _____ Total