Unit 6: Decimals

Content Area:	Mathematics
Course(s):	Mathematics 4
Time Period:	February
Length:	4 weeks
Status:	Published

Enduring Understandings
Parts of a whole or set may be represented in a variety of ways - fractions, decimal fractions, improper fractions, and mixed numbers.
Decimals are another way of writing fractions. The decimal point separates the whole from the fractional part.
Essential Questions
How can we show multiple representations of decimals?
How is a baseball pitcher's ERA calculated?
Why are fractions and decimals important?

Content	
Vocabulary	
Diagram	
Digits	
Base 10 system	
Denominator	

Metric system

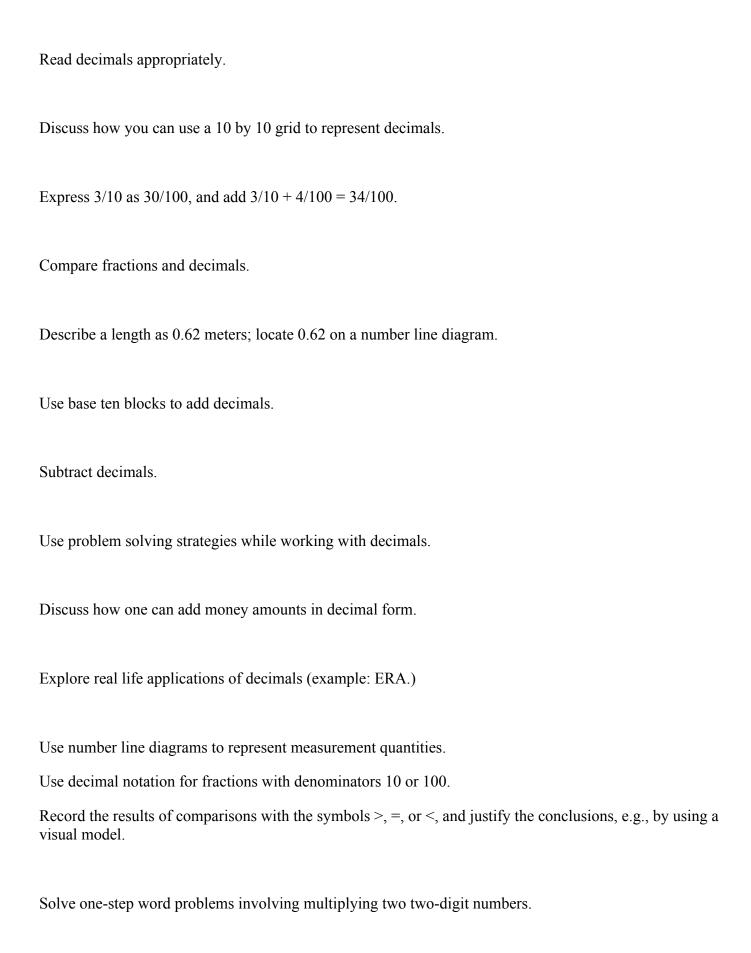
Dollar system

Sum

Tenths

Whole numbers
Place value
Distance
Diagram
Meter stick
http://www.mathplayground.com/common_core_state_standards_for_mathematics_grade_4.html
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<u>k5learning.com</u>
tenmarks.com
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parcc.pearson.com
http://nextgen.apps.sparcc.org/math/3-5
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http://www.insidemathematics.org/common-core-resources/mathematical-content-standards/standards-by-
grade/4th-grade
https://learnzillion.com/resources/17036-math-lesson-plans-4th-grade
http://xxxxxx.math.co.adi.or.com/standarda/alignmanta/grada4.html
http://www.mathgoodies.com/standards/alignments/grade4.html
Skills
Use a place value chart to read and write numbers.
Explore decimals on a number line.

Name whole numbers that decimals lie between.



Solve real life word problems involving masses of objects.

Solve real life word problems involving liquid volumes.

Standards

CCSS.Math.Content.4.MD.A	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
CCSS.Math.Content.4.MD.A.2	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
CCSS.Math.Content.4.NF.C	Understand decimal notation for fractions, and compare decimal fractions.
CCSS.Math.Content.4.NF.C.5	Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.
CCSS.Math.Content.4.NF.C.6	Use decimal notation for fractions with denominators 10 or 100.
CCSS.Math.Content.4.NF.C.7	Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.
CCSS.Math.Content.4.NBT.A	Generalize place value understanding for multi-digit whole numbers.
CCSS.Math.Content.4.NBT.A.1	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.
CCSS.Math.Content.4.NBT.A.2	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.