

# Math 5 Pacing Guide

## 2<sup>nd</sup> Quarter

\*SOLs 5.14, 5.15, & 5.16 are also covered through Science

| Timeline            | Strand/Standard of Learning  | Essential Knowledge, Skills, Processes, and Questions   | Vocabulary  | Resources/Assessments   |
|---------------------|--|---|---|---|
| 2 Days<br>Nov 10-11 | <p><b>Computation and Estimation 5.5</b><br/>The student will</p> <p><b>a) find the sum, difference, product, and quotient of two numbers expressed as decimals through thousandths (divisors with only one nonzero digit); and</b></p> <p><b>b) create and solve single-step and multistep practical problems involving decimals.</b></p> <p><b>*This unit focusses on addition and subtraction of decimals</b></p> <p><b>*Common Errors:</b></p> <ul style="list-style-type: none"> <li>● Forget to “line up” decimals</li> <li>● Put the smaller number on top</li> <li>● forget to regroup</li> <li>● forget to add the decimal back in</li> </ul> | <p><b><u>Essential Knowledge, Skills, and Processes</u></b></p> <ul style="list-style-type: none"> <li>● Determine an appropriate method of calculation to find the sum, difference, product, and quotient of two numbers expressed as decimals through thousandths, selecting from among paper and pencil, estimation, mental computation, and calculators.</li> <li>● Estimate to find the number that is closest to the sum, difference, and product of two numbers expressed as decimals through thousandths.</li> <li>● Find the sum, difference, and product of two numbers expressed as decimals through thousandths, using paper and pencil, estimation, mental computation, and calculators.</li> <li>● Determine the quotient, given a dividend expressed as a decimal through thousandths and a single-digit divisor. For example, 5.4 divided by 2 and 2.4 divided by 5.</li> <li>● Use estimation to check the reasonableness of a sum, difference, product, and quotient.</li> <li>● Create and solve single-step and multistep problems.</li> <li>● A multistep problem needs to incorporate two or more operational steps (operations can be the same or different).</li> </ul> <p><b>All students should</b></p> <ul style="list-style-type: none"> <li>● Use similar procedures as those developed for whole number computation and apply them to decimal place values, giving careful attention to the placement of the decimal point in the solution.</li> <li>● Select appropriate methods and tools from among paper and pencil, estimation, mental computation, and calculators according to the context and nature of the computation in order to compute with decimal numbers.</li> <li>● Understand the various meanings of division and its effect on whole numbers.</li> <li>● Understand various representations of division, i.e.,</li> </ul> | <p>Sum</p> <p>Difference</p> <p>Product</p> <p>Quotient</p> <p>Decimal</p> <p>Place value</p> <p>Tenths</p> <p>Hundredths</p> <p>Thousandths</p> <p>Divisor</p> <p>Dividend</p> <p>Factor</p> | <p><b><u>VDOE ESS</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Party Time</a></li> </ul> <p><b><u>ARI</u></b></p> <ul style="list-style-type: none"> <li>● SOL 5.5b <a href="#">Exploring Decimals</a> pg 6</li> <li>● SOL 5.5a <a href="#">coming soon!</a></li> </ul> <p><b><u>Student Performance Analysis</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">2013 SPA</a> pg. 8-10</li> <li>● <a href="#">2014 SPA</a> pg. 8-10</li> </ul> <p><b><u>Videos and Links</u></b></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><b><u>Tools and Manipulatives</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Multiplying Decimals Smart Activity</a></li> <li>● <a href="#">Add/Subtract/Place Value Smart Activity</a></li> <li>● <a href="#">Second Multiplying Decimals Smart Activity</a></li> </ul> <p><b><u>Games</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Multiplying Decimals Scoot</a></li> <li>● <a href="#">My Big Campus SOL Review Games</a></li> <li>● <a href="#">SOL Teacher Topic Games</a></li> </ul> <p><b><u>IXL</u></b></p> <ul style="list-style-type: none"> <li>● Computation(+/-):<b>E.1-E.3</b></li> <li>● Problem Solving(+/-): <b>E.4</b></li> <li>● Computation (x): <b>G.1-G.4, G.6-G.9</b></li> <li>● Problem Solving (x): <b>G.5</b></li> <li>● Computation (÷ ): <b>I.1-4</b></li> <li>● Problem Solving (÷ ): <b>I.5</b></li> </ul> <p><b><u>enVision</u></b><br/>Textbook:</p> <ul style="list-style-type: none"> <li>● Topic 7-4 Pg. 176-177 #1-29</li> </ul> |

$$\text{dividend} \div \text{divisor} = \text{quotient}$$

$$\begin{array}{r} \text{quotient} \\ \text{divisor} \overline{) \text{dividend}} \end{array}$$

$$\frac{\text{dividend}}{\text{divisor}} = \text{quotient.}$$

**Essential Questions:**

- How do you find the sum of numbers that include decimals?
- How do you find the difference of numbers that include decimals?
- How do you find the product of numbers that include decimals?
- How do you find the quotient of numbers that include decimals?

**Understanding the Standard:**

- Addition and subtraction of decimals may be investigated using a variety of models (e.g., 10-by-10 grids, number lines, money).
- Decimal computation uses similar procedures as those developed for whole number computation and applies them to decimal place values, giving careful attention to the placement of the decimal point in the solution.
- Multiplication of decimals follows the same procedure as multiplication of whole numbers. The only difference is that a decimal point must be correctly placed in the product giving careful attention to the placement of the decimal point in the solution.
- The product of decimals is dependent upon the two factors being multiplied.
- In cases where an exact product is not required, the product of decimals can be estimated using strategies for multiplying whole numbers, such as front-end and compatible numbers, or rounding. In each case, the student needs to determine where to place the decimal point to ensure that the product is reasonable.
- Division is the operation of making equal groups or shares. When the original amount and the number of shares are known, divide to find the size of each share. When the original amount and the size of each share are known, divide to find the number of shares. Both situations may be modeled with Base-10 manipulatives.
- The fair-share concept of decimal division can be modeled, using manipulatives (e.g., Base-10 blocks).
- Division with decimals is performed the same way as division of whole numbers. The only difference is the placement of the decimal point in the quotient.
- The quotient can be estimated, given a dividend expressed as a decimal through thousandths (and no adding of zeros to the dividend during the division process) and a single-digit divisor.

- Adding Decimals: Topic 2-6;pg. 42-43
- Subtracting Decimals: Topic 2-7; pg. 44-45
- Multi-Step Problems: Topic 2-8; pg. 46-48
- Multiplying Decimals: Topic 7-2, 7-3, 7-4; pg. 172-177
- Dividing Decimals by Whole Number: Topic 7-6, pg. 180-182
- Multi-Step Problems: Topic 7-9; pg. 188-190

Workbook:

- Practice 7-5
- Reteach 7-5

Teacher Resources:

- Quick Check 7-5
- Enrichment 7-5
- Intervention (Teacher Edition) pg. 179B

**Misc. worksheets**

- [Mixed Operations](#)
- [Disgusting Decimals](#)
- [Multiplying Decimals Enrichment](#)
- [Add/Subtract Decimals](#)
- [Decimals Exit Slip](#)
- [Pre-Assessment](#)
- Chesapeake Book Topic 5.5

**Quizzes**

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**Tests**

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|                                    |   | <ul style="list-style-type: none"> <li>● Estimation can be used to check the reasonableness of a quotient.</li> <li>● Division is the inverse of multiplication; therefore, multiplication and division are inverse operations.</li> <li>● Terms used in division are dividend, divisor, and quotient.</li> <li>● There are a variety of algorithms for division such as repeated multiplication and subtraction. Experience with these algorithms may enhance understanding of the traditional long division algorithm.</li> <li>● A multistep problem needs to incorporate no more than two operational steps (operations can be the same or different).</li> </ul> |   |   |
| <p><b>5 Days<br/>Nov 12-18</b></p> | <p><b>Problem Solving 5.5</b><br/> <b>The student will</b><br/> <b>a) find the sum, difference, product, and quotient of two numbers expressed as decimals through thousandths (divisors with only one nonzero digit); and</b><br/><br/> <b>b) create and solve single-step and multistep practical problems involving decimals.</b></p> <p><b>*This unit focusses on Addition and Subtraction of Decimals within Word Problems</b></p> <p><b>*Common Errors:</b></p> <ul style="list-style-type: none"> <li>● Forget to “line up” decimals</li> <li>● Put the smaller number on top</li> <li>● forget to regroup</li> <li>● forget to add the decimal back in</li> <li>● look for keywords instead of</li> </ul> | <p><b><u>Essential Knowledge, Skills, and Processes</u></b></p> <ul style="list-style-type: none"> <li>● See Above for Reference</li> </ul> <p><b><u>Essential Questions:</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul> <p><b><u>Understanding the Standard:</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul>  | <p>Sum</p> <p>Difference</p> <p>Product</p> <p>Quotient</p> <p>Decimal</p> <p>Place value</p> <p>Tenths</p> <p>Hundredths</p> <p>Thousandths</p> <p>Divisor</p> <p>Dividend</p> <p>Factor</p> | <ul style="list-style-type: none"> <li>● See above for reference</li> </ul> |

|  | analyzing what is asked   |   |  |  |
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| <p><b>4 Days</b><br/><b>Nov 19-24</b></p>    | <p><b>Measurement</b><br/><b>5.11</b><br/><b>The student will measure right, acute, obtuse, and straight angles.</b></p> <p><b>*Common Errors:</b></p> <ul style="list-style-type: none"> <li>● don't align the protractor up correctly</li> <li>● Don't understand how to read the protractor (will read the wrong string of numbers)</li> <li>● Forget to start with <u>zero</u> when they begin taking the measurement.</li> </ul> | <p><b><u>Essential Knowledge, Skills, and Processes</u></b></p> <ul style="list-style-type: none"> <li>● Identify the appropriate tools (e.g., protractor and straightedge or angle ruler as well as available software) used to measure and draw angles and triangles.</li> <li>● Measure right, acute, straight, and obtuse angles, using appropriate tools, and identify their measures in degrees.</li> <li>● Recognize angle measure as <u>additive</u>. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts.</li> <li>● Solve addition and subtraction problems to find unknown angle measures on a diagram in practical and mathematical problems, (e.g., by using an equation with a symbol for the unknown angle measure).</li> </ul> <p><b>All students should</b></p> <ul style="list-style-type: none"> <li>● Understand how to measure acute, right, obtuse, and straight angles.</li> </ul> <p><b><u>Essential Questions:</u></b></p> <ul style="list-style-type: none"> <li>● Which tool can be used to measure right, acute, obtuse, and straight angles?</li> </ul> <p><b><u>Understanding the Standard:</u></b></p> <ul style="list-style-type: none"> <li>● Angles are measured in degrees. There are up to 360 degrees in an angle. A degree is 1/360 of a complete rotation of a full circle. There are 360 degrees in a circle.</li> <li>● To measure the number of degrees in an angle, use a protractor or an angle ruler.</li> <li>● A right angle measures exactly 90°.</li> <li>● An acute angle measures less than 90°.</li> <li>● An obtuse angle measures greater than 90° but less than 180°.</li> <li>● A straight angle measures exactly 180°.</li> <li>● Before measuring an angle, students should first compare it to a right angle to determine whether the measure of the angle is less than or greater than 90°.</li> <li>● Students should understand how to work with a protractor or angle ruler as well as available computer software to measure and draw angles and triangles.</li> </ul> | <p>Protractor</p> <p>Right</p> <p>Acute</p> <p>Straight</p> <p>Obtuse</p> <p>Angle</p> <p>Vertex</p> <p>Vertices</p> | <p><b><u>VDOE ESS</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Angles Are Everywhere!</a></li> </ul> <p><b><u>ARI</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Classifying Angles</a> pg. 16-41</li> </ul> <p><b><u>Student Performance Analysis</u></b></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><b><u>Videos and Links</u></b></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><b><u>Tools and Manipulatives</u></b></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><b><u>Games</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">My Big Campus SOL Review Games</a></li> <li>● <a href="#">SOL Teacher Topic Games</a></li> </ul> <p><b><u>IXL</u></b></p> <ul style="list-style-type: none"> <li>● Types of angles <b>B.12</b></li> <li>● Measure angles with a protractor <b>B.13</b></li> </ul> <p><b><u>enVision</u></b></p> <ul style="list-style-type: none"> <li>● Measuring and Classifying Angles: Topic 8-2; pg. 204-205</li> </ul> <p><b><u>Miscl. worksheets</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Measuring Angles</a></li> <li>● Chesapeake Book Topic 5.11</li> </ul> <p><b><u>Quizzes</u></b></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><b><u>Tests</u></b></p> <ul style="list-style-type: none"> <li>●</li> </ul> |
| <p><b>4 Days</b><br/><b>Nov 30-Dec 3</b></p> | <p><b>Computation and Estimation</b><br/><b>5.5</b><br/><b>The student will</b><br/><b>a) find the sum, difference, product, and</b></p>  | <p><b><u>Essential Knowledge, Skills, and Processes</u></b></p> <ul style="list-style-type: none"> <li>● See Above for Reference</li> </ul> <p><b><u>Essential Questions:</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul>   | <p>Sum</p> <p>Difference</p> <p>Product</p>  | <ul style="list-style-type: none"> <li>● See above for reference</li> </ul>  |

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|  | <p>quotient of two numbers expressed as decimals through thousandths (divisors with only one nonzero digit); and</p> <p>b) Create and solve single-step and multistep practical problems involving decimals.</p> <p>*This unit focusses on 2 days of multiplication and 2 days of division of decimals.</p> <p>*Common Errors:</p> <p><b>Multiplication:</b></p> <ul style="list-style-type: none"> <li>● students think they have to line up the decimals</li> <li>● students forget to make estimations before hand to know where the decimal will fall within the answer</li> </ul> <p><b>Division:</b></p> <ul style="list-style-type: none"> <li>● forget the decimal in the answer</li> <li>● Don't understand how to formulate an answer around the idea of a decimal</li> <li>● Forget that they are looking at "pieces" and that when we</li> </ul> | <p><b><u>Understanding the Standard:</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul> | <p>Quotient</p> <p>Decimal</p> <p>Place value</p> <p>Tenths</p> <p>Hundredths</p> <p>Thousandths</p> <p>Divisor</p> <p>Dividend</p> <p>Factor</p> |  |
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|                            | <p>divide pieces into more pieces, they get smaller.</p>  |  |   |   |
| <p>6 Days<br/>Dec 4-11</p> | <p><b>Problem Solving 5.5</b><br/>The student will</p> <p>a) find the sum, difference, product, and quotient of two numbers expressed as decimals through thousandths (divisors with only one nonzero digit); and</p> <p>b) create and solve single-step and multistep practical problems involving decimals.</p> <p><b>*This unit focusses on Word problems involving decimals with all functions.</b></p> <p><b>*Common Errors:</b></p> <p><b>Word Problems:</b></p> <ul style="list-style-type: none"> <li>● look for keywords instead of analyzing what is asked</li> </ul> <p><b>Multiplication:</b></p> <ul style="list-style-type: none"> <li>● students think they have to line up the decimals</li> <li>● students forget to make estimations before hand to know where the decimal will fall</li> </ul> | <p><b><u>Essential Knowledge, Skills, and Processes</u></b></p> <ul style="list-style-type: none"> <li>● See Above for Reference</li> </ul> <p><b><u>Essential Questions:</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul> <p><b><u>Understanding the Standard:</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul> | <p>Sum</p> <p>Difference</p> <p>Product</p> <p>Quotient</p> <p>Decimal</p> <p>Place value</p> <p>Tenths</p> <p>Hundredths</p> <p>Thousandths</p> <p>Divisor</p> <p>Dividend</p> <p>Factor</p> | <ul style="list-style-type: none"> <li>● See above for reference</li> </ul> |

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|                                 | <p>within the answer</p> <p>Division:</p> <ul style="list-style-type: none"> <li>● forget the decimal in the answer</li> <li>● Don't understand how to formulate an answer around the idea of a decimal</li> <li>● Forget that they are looking at "pieces" and that when we divide pieces into more pieces, they get smaller.</li> </ul>  |   |  |   |
| <p>9 Days<br/>Dec 14-Jan 11</p> | <p><b>Number and Number Sense</b><br/><b>5.2</b></p> <p>The student will</p> <p>a) recognize and name fractions in their equivalent decimal form and vice versa</p> <p>b) compare and order fractions and decimals in a given set from least to greatest and greatest to least</p> <p><b>*Common Errors</b></p> <ul style="list-style-type: none"> <li>● understanding that a fraction AND a decimal are the same thing (pieces of a whole)</li> </ul> | <p><b><u>Essential Knowledge, Skills, and Processes</u></b></p> <ul style="list-style-type: none"> <li>● Represent fractions (halves, fourths, fifths, eighths, tenths, and twelfths) in their equivalent decimal form and vice versa.</li> <li>● Recognize and name equivalent relationships between decimals and fractions with denominators up to 12.</li> <li>● Compare and order from least to greatest and greatest to least a given set of no more than five numbers written as decimals, fractions, and mixed numbers with denominators of 12 or less.</li> </ul> <p><b>All students should</b></p> <ul style="list-style-type: none"> <li>● Understand the relationship between fractions and their decimal form and vice versa.</li> <li>● Understand that fractions and decimals can be compared and ordered from least to greatest and greatest to least.</li> </ul> <p><b><u>Essential Questions:</u></b></p> <ul style="list-style-type: none"> <li>● How can you represent a fraction as a decimal? How can you represent a decimal as a fraction?</li> <li>● How can you write fractions and decimals in order from least to greatest or greatest to least?</li> </ul> <p><b><u>Understanding the Standard:</u></b></p> | <p>Equivalent Fractions</p> <p>Mixed Number</p> <p>Numerator</p> <p>Denominator</p> <p><u>Strategy Vocabulary:</u></p> <p><math>\frac{1}{2} = 0.5</math><br/> <math>\frac{1}{4} = 0.25</math><br/> <math>\frac{1}{3} = 0.33</math><br/> <math>\frac{1}{5} = 0.20</math><br/> <math>\frac{1}{6} = 0.166</math><br/> <math>\frac{1}{8} = 0.125</math><br/> <math>\frac{1}{10} = 0.1</math><br/> equivalent</p> | <p><b><u>VDOE ESS</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Order Up!</a></li> </ul> <p><b><u>ARI</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Comparing and Ordering Decimals</a> pg. 2-8</li> <li>● <a href="#">Decimals</a> pg 3-5</li> </ul> <p><b><u>Student Performance Analysis</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">2014 SPA</a> pg. 2-4</li> </ul> <p><b><u>Videos and Links</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Study Jams Fractions</a></li> </ul> <p><b><u>Tools and Manipulatives</u></b></p> <ul style="list-style-type: none"> <li>● fraction circles</li> <li>● fraction bars</li> <li>● number line</li> <li>● grid paper to connect fractions and decimals</li> <li>● Clothes Line Activity</li> <li>● <a href="#">Equivalent fractions/Decimals Flashcards</a></li> <li>● Hershey's Milk Chocolate Fractions Book</li> <li>● Decimal Grid Paper</li> </ul> |

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|  | <ul style="list-style-type: none"> <li>● <b>Forget to use “benchmarks” when ordering</b></li> </ul> | <ul style="list-style-type: none"> <li>● Students should recognize, name, and focus on finding equivalent decimals of familiar fractions such as halves, fourths, fifths, eighths, and tenths.</li> <li>● Students should be able to determine equivalent relationships between decimals and fractions with denominators up to 12.</li> <li>● Students should have experience with fractions such as <math>\frac{1}{8}</math>, whose decimal representation is a terminating decimal (e. g., <math>\frac{1}{8} = 0.125</math>) and with fractions such as <math>\frac{2}{9}</math>, whose decimal representation does not end but continues to repeat (e. g., <math>\frac{2}{9} = 0.222\dots</math>). The repeating decimal can be written with ellipses (three dots) as in <math>0.222\dots</math> or denoted with a bar above the digits that repeat as in <math>0.\overline{2}</math>.</li> <li>● To help students compare the value of two decimals through thousandths, use manipulatives, such as place value mats/charts, 10-by-10 grids, decimal squares, Base-10 blocks, meter sticks, number lines, and money.</li> <li>● A procedure for comparing two decimals by examining may include the following: <ul style="list-style-type: none"> <li>- Line up the decimal numbers at their decimal points.</li> <li>- Beginning at the left, find the first place value where the digits are different.</li> <li>- Compare the digits in this place value to determine which number is greater (or which is less).</li> <li>- Use the appropriate symbol <math>&gt;</math> or <math>&lt;</math> or the words greater than or less than to compare the numbers in the order in which they are presented.</li> <li>- If both numbers are the same, use the symbol <math>=</math> or words equal to. Two numbers can be compared by examining place value and/or using a number line.</li> </ul> </li> <li>● Decimals and fractions represent the same relationships; however, they are presented in two different formats. Decimal numbers are another way of writing fractions. Base-10 models (e.g., 10-by-10 grids, meter sticks, number lines, decimal squares, money) concretely relate fractions to decimals and vice versa.</li> </ul> | <ul style="list-style-type: none"> <li>● Converting Fractions to Decimals PowerPoint</li> </ul> <p><b>Games</b></p> <ul style="list-style-type: none"> <li>● Fraction/Decimal War</li> <li>● Fraction Capture</li> <li>● Fraction Go Fish</li> <li>● <a href="#">My Big Campus SOL Review Games</a></li> <li>● <a href="#">SQL Teacher Topic Games</a></li> <li>● <a href="#">Fishing for fractions</a></li> </ul> <p><b>IXL</b></p> <ul style="list-style-type: none"> <li>● L.1 Fractions review</li> <li>● L.3 Equivalent Fractions</li> <li>● L.8 Compare fractions using benchmarks</li> <li>● L.9 Compare fractions and mixed numbers</li> <li>● L.10 Put fractions in order</li> <li>● L.11, L.12, L.9, C.10, C.11, C.14</li> </ul> <p><b>enVision</b><br/>Textbook:</p> <ul style="list-style-type: none"> <li>● Pg. 219 #1-4, 5-8</li> <li>● Topic Opener 9-1</li> </ul> <p>Workbook:</p> <ul style="list-style-type: none"> <li>● Pg. 139-140 #17-18, 7</li> </ul> <p><b>Miscl. worksheets</b></p> <ul style="list-style-type: none"> <li>● <a href="#">Ordering Decimals/fractions</a></li> <li>● Fraction Anchor Chart</li> <li>● <a href="#">Witch’s Brew Worksheet</a></li> <li>● M&amp;M Activity</li> <li>● “Pictures, words and numbers” 3 column worksheets</li> <li>● Mining a Muffin</li> <li>● Chesapeake Book Topic 5.2</li> </ul> <p><b>Quizzes</b></p> <ul style="list-style-type: none"> <li>● IA Math 5.2 Ordering Fractions &amp; Decimals Practice</li> </ul> <p><b>Tests</b></p> <ul style="list-style-type: none"> <li>●</li> </ul> |
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| <p><b>6 Days</b><br/><b>Jan 14-22</b></p> <p><b>*Taught but not tested until Q3</b></p> | <p><b>Computation and Estimation</b><br/><b>5.6</b></p> <p><b>The student will solve single-step and multistep practical problems involving addition and subtraction with fractions and mixed numbers and express answers in simplest form.</b></p> <p><b>This unit focuses on adding and subtracting fractions</b></p> <p><b>*Common Errors:</b></p> <ul style="list-style-type: none"> <li>● remember to find common denominators</li> <li>● forget to use framework</li> <li>● when regrouping we need to add a fractional whole back to the fractional pieces already there</li> </ul> | <p><b><u>Essential Knowledge, Skills, and Processes</u></b></p> <ul style="list-style-type: none"> <li>● Solve single-step and multistep practical problems involving addition and subtraction with fractions having like and unlike denominators. Denominators in the problems should be limited to 12 or less (e.g., + ) and answers should be expressed in simplest form.</li> <li>● Solve single-step and multistep practical problems involving addition and subtraction with mixed numbers having like and unlike denominators, with and without regrouping. Denominators in the problems should be limited to 12 or less, and answers should be expressed in simplest form.</li> <li>● Use estimation to check the reasonableness of a sum or difference.</li> </ul> <p><b>All students should</b></p> <ul style="list-style-type: none"> <li>● Develop and use strategies to estimate and compute addition and subtraction of fractions.</li> <li>● Understand the concept of least common multiple and least common denominator as they are important when adding and subtracting fractions.</li> <li>● Understand that a fraction is in simplest form when its numerator and denominator have no common factors other than 1. The numerator can be greater than the denominator.</li> </ul> <p><b><u>Essential Questions:</u></b></p> <ul style="list-style-type: none"> <li>● What steps can you use in adding and subtracting fractions and mixed numbers?</li> <li>● How do you write a fraction in simplest form?</li> </ul> <p><b><u>Understanding the Standard:</u></b></p> <ul style="list-style-type: none"> <li>● A fraction can be expressed in simplest form (simplest equivalent fraction) by dividing the numerator and denominator by their greatest common factor.</li> <li>● When the numerator and denominator have no common factors other than 1, then the fraction is in simplest form.</li> <li>● Fractions having like denominators means the same as fractions having common denominators. • Equivalent fractions name the same amount. To find equivalent fractions, multiply or divide the numerator and denominator by the same nonzero number.</li> <li>● Addition and subtraction with fractions and mixed numbers can be modeled using a variety of concrete materials and pictorial representations as well as paper and pencil.</li> <li>● To add, subtract, and compare fractions and mixed numbers, it often helps to find the least common denominator. The least common denominator (LCD) of two or more fractions is the least common multiple (LCM) of the denominators.</li> </ul> | <p>Fraction:<br/>Addition</p> <p>Fraction:<br/>Subtraction</p> <p>Regrouping</p> | <p><b><u>VDOE ESS</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Order Up!</a></li> <li>● <a href="#">Enough Room?</a></li> <li>● <a href="#">Line-Up</a> (ESS Number and Number Sense Module lesson)</li> <li>● <a href="#">Fractions and Decimals ... Out to Dry</a> (ESS Number and Number Sense Module lesson)</li> </ul> <p><b><u>ARI</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">Working with Fractions</a> pg. 2-8</li> </ul> <p><b><u>Student Performance Analysis</u></b></p> <ul style="list-style-type: none"> <li>● <a href="#">2012 SPA</a> pg. 5-8</li> <li>● <a href="#">2013 SPA</a> pg. 11-13</li> <li>● <a href="#">2014 SPA</a> pg. 11-13</li> </ul> <p><b><u>Videos and Links</u></b></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><b><u>Tools and Manipulatives</u></b></p> <ul style="list-style-type: none"> <li>● Fraction Bars</li> </ul> <p><b><u>Games</u></b></p> <ul style="list-style-type: none"> <li>● Fraction Capture</li> <li>● Fraction Decimal War</li> <li>● <a href="#">My Big Campus SOL Review Games</a></li> <li>● <a href="#">SOL Teacher Topic Games</a></li> <li>● <a href="#">Fraction Hopscotch</a></li> </ul> <p><b><u>IXL</u></b></p> <ul style="list-style-type: none"> <li>● Understanding Fractions: <b>L.1-L.10</b></li> <li>● Operations with like denominators: <b>M.1-M.5</b></li> <li>● Operations with Unlike Denominators: <b>M.6-M.13, M.18-M.20</b></li> <li>● Fractions Word Problems: <ul style="list-style-type: none"> <li>● Unlike: <b>M.4</b></li> <li>● Like: <b>M.11 &amp; M.20</b></li> <li>● <b>M.3</b></li> </ul> </li> </ul> <p><b><u>enVision</u></b></p> <ul style="list-style-type: none"> <li>● Equivalent Fractions: Topic 9-4; pg. 228-229</li> </ul> |
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|                             |   | <ul style="list-style-type: none"> <li>● To add or subtract with fractions having the same or like denominators, add or subtract the numerators and write in simplest form.</li> <li>● To add or subtract with fractions that do not have the same denominator, first find equivalent fractions with the least common denominator. Then add or subtract and write the answer in simplest form.</li> <li>● A mixed number has two parts: a whole number and a fraction. The value of a mixed number is the sum of its two parts.</li> <li>● To add or subtract with mixed numbers, students may use a number line, draw a picture, rewrite fractions with like denominators, or rewrite mixed numbers as fractions.</li> </ul> |  | <ul style="list-style-type: none"> <li>● Tenths and Hundredths: Topic 9-8; pg. 238-241</li> <li>● Thousandths: Topic 9-9; pg. 242-243</li> <li>● Comparing and Ordering Fractions and Mixed Numbers: Topic 9-5; pg. 230-231</li> <li>● Fractions and Decimals on the Number Line: Topic 9-10; pg. 244-245</li> <li>● Common Multiples and Least Common Multiple: Topic 10-2; pg. 260-261</li> <li>● Adding and Subtracting Fractions: Topic 10-1; pg. 256-258</li> <li>● Adding Fractions with Unlike Denominators: Topic 10-3; pg. 262-263</li> <li>● Subtracting Fractions with Unlike Denominators: Topic 10-4, pg. 264-265</li> <li>● Adding Mixed Numbers: Topic 10-5; pg. 266-267</li> <li>● Subtracting Mixed Numbers: Topic 10-6; pg. 268-269</li> </ul> <p><b>Misc. worksheets</b></p> <ul style="list-style-type: none"> <li>● Chesapeake Book Pg. 11-13</li> </ul> <p><b>Quizzes</b></p> <ul style="list-style-type: none"> <li>● IA Skills Check 5.6 (there are 4)</li> </ul> <p><b>Tests</b></p> <ul style="list-style-type: none"> <li>●</li> </ul> |
| <p>4 Days<br/>Jan 25-28</p> | <p><b>Problem Solving 5.6</b><br/>The student will solve single-step and multistep practical problems involving addition and subtraction with fractions and mixed</p> | <p><b><u>Essential Knowledge, Skills, and Processes</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul> <p><b><u>Essential Questions:</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul> <p><b><u>Understanding the Standard:</u></b></p> <ul style="list-style-type: none"> <li>● See above for reference</li> </ul>  | <p>Fraction:<br/>Addition</p> <p>Fraction:<br/>Subtraction</p> <p>Regrouping</p> | <ul style="list-style-type: none"> <li>● See above for reference</li> </ul>   |

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|  | <p>numbers and express answers in simplest form.</p> <p><b>*Common Errors:</b></p> <p><b>Word Problems:</b></p> <ul style="list-style-type: none"> <li>● look for keywords instead of analyzing what is asked</li> </ul> <p><b>Computation:</b></p> <ul style="list-style-type: none"> <li>● remember to find common denominators</li> <li>● forget to use framework</li> <li>● when regrouping we need to add a fractional whole back to the fractional pieces already there</li> </ul> |  |  |  |
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\*43 Instructional Days

\*Benchmark Window set for Jan 19-28

\*Intended Benchmark Testing scheduled Jan 14 and 15

\*Benchmark to include all SOLs covered in Q2 **EXCEPT SOL 5.6 PLUS INCLUDING SOL 5.9 (Circles)**