

<p>Step 1 What is the highest level of understanding expected of students?</p>	<p><b>Review the Pacing and Standards documents</b> for the number of days to be spent on this CMP2 book/chapter and the State Standards to be covered.</p>
<p>- Which Standards/Priority Standards will be covered in this unit?</p> <p>- What do my students need to master to be prepared for the next course?</p>	<p>6A - 6.7.06: Identify and locate integers, decimals and fractions/mixed numbers on a number line, and estimate the locations of square roots.</p> <p>6A - 6.7.07: Solve problems involving descriptions of numbers including characteristics and relationships (e.g., square numbers, prime/composite, prime factorization, greatest common factor, lowest common multiple).</p> <p>6B - 6.7.08: Solve problems and number sentences involving addition, subtraction, multiplication and division using integers, fractions and decimals.</p> <p>6B - 6.7.17: Solve number sentences and problems involving fractions, decimals, percents (e.g. 50% of 10 is the same as <math>\frac{1}{2}</math> of 10 is the same as <math>0.5 \times 10</math>, sales tax, tips, interest, discounts).</p> <p>8A - 8.7.05: Evaluate or simplify algebraic expressions with one or more integer variable values (e.g., <math>a^2+b</math> for <math>a=3</math>, <math>b= - 4</math>)</p> <p>8B - 8.7.11: Solve linear equations in one variable (e.g., <math>2x+3=13</math>) and inequalities involving <math>&lt;</math> or <math>&gt;</math> (e.g., <math>2x&lt;6</math>, <math>x+7&gt;10</math>).</p> <p>8B - 8.7.12: Solve word problems for unknown quantities.</p> <p>9A - 9.7.05: Graph points and identify coordinates of points on the Cartesian coordinate plane (all four quadrants).</p>
<p>Step 2 How does the key math in the book or chapter relate to the Big Ideas and Essential Questions?</p>	<p><b>Review the Priority Standards</b> documents(s) for this CMP2 book/chapter. <b>Review the CMP2 Mathematics Background Prerequisite Skills and Main Ideas</b> to clearly understand the key math.</p>
<p>- What “Big Ideas” are identified as the key math for this CMP2 book/chapter?</p> <p>- What “Essential Questions” focus the key math in thisCMP2 book/chapter?</p> <p>- What are students expected to do in order to demonstrate mastery expectations?</p>	<ul style="list-style-type: none"> <li>• Numbers can be represented by a unique point on the number line.</li> <li>• Knowledge of when to use the four operations guides problem solving.</li> <li>• Knowledge of which algorithms to use guides fluent computation.</li> <li>• Mathematical problems involving unknown quantities can be solved using number properties and algebraic concepts.</li> <li>• The coordinate plane can be used to represent properties of geometric shapes.</li> <li>• How does knowing the location of a point on a number line help you understand the value of the number?</li> <li>• How do you determine which operations to use when solving problems?</li> </ul>

<p>- What previous knowledge do I expect my students to have?</p>	<ul style="list-style-type: none"> <li>• How do you determine which algorithms to apply when solving integer, fraction, decimal and percent problems?</li> <li>• How can you describe an object’s location using ordered pairs?</li> <li>• How can you determine if there is a relationship between the graphed points?</li> <li>• I can justify the location of integers, decimals, fractions/mixed numbers and square root approximations on the number line.</li> <li>• I can justify when to use addition, subtraction, multiplication, or division when solving problems.</li> <li>• I can apply the correct algorithms in integer, fraction, decimal and percent real world problems.</li> <li>• I can explain how I use ordered pairs to graph and locate points in all 4 quadrants.</li> <li>• I can justify the location of decimals, fractions and mixed numbers on a number line.</li> <li>• I can justify when to use addition, subtraction, multiplication or division when solving problems.</li> <li>• I can apply the correct algorithms in decimal and fraction real world problem solving situations.</li> <li>• I can use ordered pairs to graph and locate points in the first quadrant.</li> </ul>
<p>Step 3 Which activities provide opportunities for students to talk and write the key math language?</p>	<p><b>Identify key vocabulary</b> that will be taught and used in the CMP2 book/chapter.</p>
<p>- What math vocabulary/language do I expect my students to use?</p> <p>- Where and how can I include student writing?</p>	<p>Integer, opposite, negative, positive, ordered pair, quadrant</p> <p>Math Reflections, Looking Back Looking Ahead #5 - 9, Investigations: 2.1 D, 2.2 A, 2.3 B &amp; C, 2.4 C &amp; D, 2.5 D &amp; E, 3.1 B, 3.2 A, B &amp; C, 3.3 B, 4.3 A, B, C, &amp; E</p>
<p>Step 4 How else might student depth of understanding be assessed besides the required formal assessments?</p>	<p>Look at the required assessments for this CMP2 book/chapter. Refer to the course level pacing documents for this information. <b>Take the end of the chapter/unit assessment</b> and do all of the math involved. <b>Note any misconceptions</b> or common mistakes that students might encounter.</p>
<p>- On questions that require an explanation, what do I expect my students to write?</p>	<p>Students should be able to represent the word problems, 6 and 9, with number sentences.</p> <p>Students may have difficulties ordering the rational numbers in problem 1. To help avoid this,</p>

<ul style="list-style-type: none"> <li>- What difficulties and/or misunderstandings do I expect my students to have?</li> <li>- How might misunderstandings be avoided?</li> <li>- How will I assess student understanding informally and formally?</li> </ul>	<p>students need to have multiple opportunities ordering number of different types. This can be accomplished by giving students rational numbers to order in small groups over the course of the unit. Students may also have difficulties remembering the different rules for adding integers. Students need ample opportunities with concrete objects to develop the rules.</p> <p>Informal – Students will be observed working in groups while completing and presenting solutions to Investigations 1.1, 1.2, 1.4, 2.1, 2.2, 3.1, 3.2, 3.3, 3.4, 4.1</p> <p>Formal - Students will complete a check - up, partner quiz, unit test and the district extended response – Interesting Integers.</p>
<p>Step 5 How will you provide support for what students are expected to say and do?</p>	<p><b>Review</b> the <b>CMP2</b> At a Glance</p>
<ul style="list-style-type: none"> <li>- What activities will I use to help students develop understanding?</li> <li>- What opportunities will my students have to maintain understanding throughout the book/chapter?</li> <li>- Where and how can I differentiate instruction?</li> </ul>	<p>Investigation 1.1, 1.2, 1.4, 2.1, 2.2, 3.1, 3.2, 3.4, 4.1, 4.2</p> <p>Mathematical Reflections, Ace questions (Investigation 1: 5 - 29, 32 - 36; Investigation 2: 1, 3, 4, 6, 8, 11 - 13, 15 - 20, 22 - 24, 27, 30; Investigation 3: 1 - 4, 6, 8 - 23, 25 - 27; Investigation 4: 1 - 5, 8 - 25, 27, 30, 32, 34, 35</p> <p>Investigation 1.1 can be differentiated by allowing some groups the use of a number line to complete the problem.</p> <p>Investigation 2.3 can be differentiated by allowing some groups to continue to use chip boards. Investigation 3.4 can be differentiated for some groups by selecting harder factors to play the product game.</p>