

<p style="text-align: center;">CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS – MODULE ONE</p>		
<p><b>UNIT OF STUDY:</b> Place Value, Ordering Whole Numbers and Fractions as numbers on the number line</p>	<p><b>COURSE/GRADE:</b> 3</p>	<p><b># WEEKS:</b> 6</p>
<p><b><i>Focus (emphasis) Standards/EC</i></b>            CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers.            CC.2.1.3.B.1 Apply place value understanding and properties of operations to perform multi-digit arithmetic.</p>	<p><b><i>Technology/manipulatives</i></b>            Study Island; ixl.com; firstinmath.com; youtube.com; studyzone.org; rulers; fraction strips; number lines; place value chart; equivalent fraction bars; foods such as Hershey bars; pattern blocks; place value charts</p>	
<p><b><i>Important (reinforced) Standards/EC</i></b></p>	<p><b><i>Reading, writing, speaking strategies</i></b>            Journaling; think aloud; have students describe situations orally and in writing when they would use fractions in real life; argue what fraction of a Hershey bar they would want given choices such as <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{6}</math>, <math>\frac{1}{12}</math>; using fractions to divide the class into equal groups</p>	
<p><b><i>Vocabulary</i></b></p> <ul style="list-style-type: none"> <li>• Numerator</li> <li>• Denominator</li> <li>• Fraction</li> <li>• Equal parts</li> <li>• equivalent fractions</li> <li>• number line</li> <li>• place value</li> <li>• expanded form</li> <li>• word form</li> <li>• associative property</li> <li>• identity property of addition</li> <li>• commutative property of addition</li> <li>• even number; odd number</li> <li>• number pattern</li> <li>• addend; sum</li> <li>• minuend; subtrahend; difference</li> <li>• horizontal; vertical</li> <li>• order of operations</li> <li>• whole number</li> <li>• base ten numerals</li> <li>• digit</li> </ul>	<p><b><i>Questioning and discussion techniques</i></b>            Explain why the fractions <math>\frac{3}{6}</math> and <math>\frac{1}{2}</math> are equivalent; give examples of whole numbers as fractions; represent the same fraction four different ways using both an illustration and the numerator/denominator; compare and contrast shapes divided into fractions and unequal parts</p>	

<ul style="list-style-type: none"> <li>• estimate</li> <li>• fact family; inverse operations</li> <li>• greater than; less than; equal to</li> <li>• regroup</li> <li>• rounding; rounding rules</li> <li>• equation; expression; number sentence</li> </ul>	
<p><b>Real life application</b></p> <ul style="list-style-type: none"> <li>• Connect <math>\frac{1}{4}</math> to other units such as quarter of a dollar, quarter past noon, four quarts in a gallon equals <math>\frac{1}{4}</math> gallon, etc.</li> <li>• Relate fractional distance as students are walking down the hallway. Change the denominator each day. Day 1: We are <math>\frac{1}{2}</math> of the way to gym class. Day 2: We are <math>\frac{3}{4}</math> of the way there. Encourage estimation. Stop when we are <math>\frac{7}{8}</math> of the way there.</li> <li>• Relate fractions to measurement on a ruler.</li> <li>• Create paper model strips and fold paper to model fractional lengths.</li> <li>• Passing out supplies, food, etc. in fractions of a set.</li> </ul>	<p><b>Performance assessment example</b></p> <p>Students will divide themselves into equal groups. Each member of the group will write a two-line stanza about fractions and then collaborate with the other members of the group to combine the stanzas in the order they choose to create a poem. Students will identify themselves to the audience as their fraction name (i.e. <math>\frac{1}{4}</math> reads first, <math>\frac{2}{4}</math> reads second, and so on) and read the poem to the other groups.</p> <p>Buckle Down book Lessons 1-6 and Lessons 16-19 Or Crosswalk Coach book Lessons 1-8 and 19-22</p>
<p><b>Computation</b></p> <ul style="list-style-type: none"> <li>• Represent fractions on a number line</li> <li>• Represent and generate equivalent fractions</li> <li>• Compare fractions with the same numerator and denominator</li> <li>• Partition two-dimensional shapes into equal parts</li> <li>• Express the area of a partition as the unit fraction of the whole</li> <li>• Develop and apply number theory concepts to compare quantities and magnitudes of fractions and whole numbers.</li> <li>• Round 2 and 3-digit whole numbers to the nearest 10 or hundred, respectively.</li> <li>• Add 2 and 3-digit whole numbers (limit sums from 100 through 1,000) and/or subtract 2 and 3-digit numbers from 3 digit whole numbers.</li> <li>• Order a set of whole numbers from least to greatest or greatest to least (up through 9,999 and limit sets to no more than four numbers).</li> </ul>	<p><b>Accommodations/adaptations</b></p> <p>Read aloud data; adjust questions; give choices; provide manipulatives; flexible groups; hundreds charts; number lines</p>
<p><b>SAS Module Resources</b></p>	

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