

 <b>PRINCETON</b> <small>INDEPENDENT SCHOOL DISTRICT</small>		<b>Campus:</b> Harper/Smith/Lacy/Godwin/Lowe	
<b>Author(s):</b> Eaton, Garlington, Elsbury, Warren, Venters, Stovall		<b>Date Created / Revised:</b> July 30, 2020	
<b>Six Weeks Period:</b> 4th		<b>Grade Level &amp; Course:</b> 5 <sup>th</sup> grade math	
<b>Timeline:</b> 5 days		<b>Unit Title:</b> Multiplying Fractions	<b>Week 2</b>

**Stated Objectives: TEK # and SE**

**Problem Solving**

- 5.1A apply mathematics to problems arising in everyday life, society, and the workplace;
- 5.1B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;
- 5.1C select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
- 5.1D communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
- 5.1E create and use representations to organize, record, and communicate mathematical ideas;
- 5.1F analyze mathematical relationships to connect and communicate mathematical ideas;
- 5.1G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication;

**Skills**

- 5.3H Represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects and pictorial models and properties of operations

**Review**

- 5.2 (C) Round decimals to tenths and hundredths
- 5.3A Estimate to determine solutions to mathematical and real world problems involving addition, subtraction, multiplication, or division
- 5.3C Solve with proficiency for quotients of up to a four digit dividend by a two digit divisor using strategies and the standard algorithm

**Concept**

- 5.3 (I) Represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models , including area models

ELPS:

<http://www.teksresourcesystem.net/module/standards/Tools/Browse?StandardId=118094>

See Instructional Focus Document (IFD) for TEK Specificity

<b>Key Understandings</b>	<p>The product of a whole number and a fraction can be represented using various models.</p> <ul style="list-style-type: none"> <li>• What is the process for multiplying a whole number and a fraction?</li> <li>• What types of concrete and/or pictorial models are used to multiply a whole number and a fraction?</li> <li>• How can an area model be used to multiply a whole number and a fraction?</li> <li>• How is multiplying a fraction by a whole number similar and different to multiplying whole numbers?</li> </ul>	
<b>Misconceptions</b>	<ul style="list-style-type: none"> <li>• Some students may think that they will need to find a common denominator when multiplying or dividing rational numbers.</li> <li>• Some students may multiply both the numerator and denominator by the whole number (e.g.), rather than considering the fraction as representing a quantity (e.g.).</li> <li>• Some students may think that when you multiply with fractions, the product is always larger, rather than seeing the reverse is true for quantities less than one.</li> </ul> <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>  <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>	
<b>Key Vocabulary</b>	<p>Whole Number, Fraction, Expression, Groups, Product, Multiply, Algorithm, Models, Equal Parts, Numerator, Denominator, Fraction Statement, Simplify, Improper Fraction, Mixed Numbers, Equation</p>	
<b>Suggested Day 5E Model</b>	<b>Instructional Procedures</b> (Engage, Explore, Explain, Extend/Elaborate, Evaluate)	<b>Materials, Resources, Notes</b>
<b>Day 1- Engage/Explore/Explanation</b>	<p>Warm-Up (2 problem solving problems)          Skills – Add/Sub. Fractions with Equal Denominators (models)          Review – Rounding to the Nearest Ten          Concept – Whole Number X Fraction (Models)</p>	<p><b>From Sharon Wells Curriculum</b></p> <ul style="list-style-type: none"> <li>• Skills 9</li> <li>• Review 9</li> <li>• Activity 1</li> </ul>
<b>Day 2 – Explain</b>	<p>Warm-Up (2 problem solving problems)          Skills – Add/Sub with Equal Denominators (models)          Review – Estimating to the Nearest Ten          Concept – Fraction X Whole Number</p>	<p><b>From Sharon Wells Curriculum</b></p> <ul style="list-style-type: none"> <li>• Skills 10</li> <li>• Review 10</li> <li>• Activity 2</li> </ul>

<b>Day 3 - Explain</b>	Warm-Up (2 problem solving problems) Skills – Add/Sub. with Equal Denominators (models/word problems) Review – Rounding to the Nearest Hundreds Concept – Multiplying Fractions Mixed Practice	<b>From Sharon Wells Curriculum</b> <ul style="list-style-type: none"> <li>● Skills 11</li> <li>● Review 11</li> <li>● Activity 3A/3B</li> </ul>
<b>Day 4 –Extend</b>	Warm-Up (2 problem solving problems) Skills – Add/Sub. with Equal Denominators (models/word problems) Review – Estimating to the Nearest Hundreds Concept – Multiplying Fractions Practice	<b>From Sharon Wells Curriculum</b> <ul style="list-style-type: none"> <li>● Skills 12</li> <li>● Review 12</li> <li>● Activity 4</li> </ul>
<b>Day 5 – Evaluate</b>	Go over Week 3 Test Taking Skills as a class. Students will complete Week 3 Assessment.	<b>From Sharon Wells Curriculum</b> <ul style="list-style-type: none"> <li>● Week 3 Test Taking Skills</li> <li>● Week3 assessment</li> </ul>

**Accommodations for Special Populations**

**Accommodations for instruction will be provided as stated on each student's (IEP) Individual Education Plan for special education, 504, at risk, and ESL/Bilingual.**