

## Lesson Plan Template

**Lesson Segment Focus:** Multiplying Fractions

**Lesson 1 of 2**

**Course & topic addressed:** Mathematics- Multiplying fractions-looking at equivalent fractions and how they correspond with one another. Then modeling the fraction with a diagram. **Date:** October 8, 2019 **Grade:** 4

**Student Outcomes:** Students will be able to model the given multiplication problem with a diagram and find equivalent fractions.

Specific learning objectives for this lesson.	Students will compare equivalent fractions with diagrams. Students will show the steps of the multiplication process by representing each fraction with a diagram.
Describe the connection to previous lessons. (Prior knowledge of students this builds upon)	Students will have previously learned how fractions work in real world settings. We will have previously worked with manipulatives to represent fractions. They will take that knowledge and apply it to representing the multiplication of fractions.
Knowledge of student's background (personal, cultural, or community assets)	Students can relate the multiplication of fractions to real life problems.

### State Academic Content Standards

List the state academic content standards with which this lesson is aligned. Include state abbreviation and number & text of the standard.	<p>AR.Math.Content.4.NF.A.1 • By using visual fraction models, explain why a fraction <math>a/b</math> is equivalent to a fraction <math>(n \times a)/(n \times b)</math> with attention to how the number and size of the parts differ even though the two fractions themselves are the same size • Use this principle to recognize and generate equivalent fractions For example: <math>1/5</math> is equivalent to <math>(2 \times 1) / (2 \times 5)</math>.</p> <p>AR.Math.Content.4.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number: • Understand a fraction <math>a/b</math> as a multiple of <math>1/b</math> (e.g., Use a visual fraction model to represent <math>5/4</math> as the product <math>5 \times (1/4)</math>, recording the conclusion by the equation <math>5/4 = 5 \times (1/4)</math>) • Understand a multiple of <math>a/b</math> as a multiple of <math>1/b</math>, and use this understanding to multiply a fraction by a whole number (e.g., Use a visual fraction model to express <math>3 \times (2/5)</math> as <math>6 \times (1/5)</math>, recognizing this product as <math>6/5</math> (In general, <math>n \times (a/b) = (n \times a)/b</math>)</p> <p>• Solve word problems involving multiplication of a fraction by a whole number (e.g., by using visual fraction models and equations to represent the problem)</p>
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### Academic Language Support

<p>What planned instructional supports might you use to assist students to understand key academic language to express and develop their content learning?          What will you do to provide varying supports for students at different levels of academic language development?</p>	<p>Using manipulatives so that the students can visually see and physically feel the parts of a fraction will help them better understand how they work together.</p>
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**Key Vocabulary**

<p>What vocabulary terms/content specific terminology must be addressed for students to master the lesson?</p>	<ol style="list-style-type: none"> <li>1.) <b>Multiplication</b></li> <li>2.) <b>Fraction</b></li> <li>3.) <b>Addition</b></li> <li>4.) <b>Cross multiply</b></li> <li>5.) <b>Equivalent fractions</b></li> <li>6.) <b>Whole</b></li> </ol>
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**Materials**

<p>Materials needed by teacher for <b>this lesson.</b></p>	<p>Pattern blocks          iPAD          Smartboard          Pointer          Khan Academy App</p>
<p>Materials needed by students for <b>this lesson.</b></p>	<p>iPad          Pattern blocks          Khan Academy App</p>

**Lesson Timeline with Instructional Strategies & Learning Tasks (This should be VERY DETAILED)**

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
	<b>Introduction:</b>	

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
5 min	Open lesson	Instruct students to get into groups of 5. Get iPads out. Send the runner of the group to pick up pattern blocks for the group Students will open up Khan Academy and go to 4 <sup>th</sup> grade math
35 min	<b><u>Instruction:</u></b> Teacher will lead students in Khan Academy activity of using diagrams to represent each multiplication problem.	Students and teacher will look at first problem with in the Khan Academy app and discuss problem at length. Teacher will walk around room to see how students are attacking the problem. Teacher will give each group time to defend their answers. After class discussion the teacher will let the groups free to work at their own pace, they have to finish the activity before the time is over. One student in the recorder who will keep track of the groups answers on a worksheet and will turn that in for a grade at the end.
2 min	<b><u>Closure:</u></b>	Students turn in worksheet for grade.

**Accommodations/Modifications**

How might I modify instruction for:  Remediation? Intervention? IEP/504?	.(try)
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LEP/ESL?	
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**Differentiation:**

How might you provide a variety of instructional methods/tasks/instructional strategies to ensure all student needs are met?	(try)
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**Assessments: Formative and/or Summative**

Describe the tools/procedures that will be used in this lesson to monitor students' learning of the lesson objective/s (include type of assessment & what is assessed).	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	
	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	
	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	

**Research/Theory**

Identify theories or research that supports the approach you used.	
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**Lesson Reflection/Evaluation**

What went well? What changes should be made? How will I use assessment data for next steps?	<i>TO BE FILLED IN AFTER TEACHING</i>
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Include supporting material such as slides, pictures, copy of textbook, and handouts for any activities students will be using as part of your lesson.

\*adapted from: <http://webcache.googleusercontent.com/search?q=cache:EsQcNWuG1ZoJ:web.mnstate.edu/harms/StudentTeachers/edTPA-LessonPlan.doc+&cd=2&hl=en&ct=clnk&gl=us>; <http://www.moreheadstate.edu/getmedia/cd3fd026-939f-4a47-a938-29c06d74ca01/Lesson-Plan-and-Reflections.aspx>; <http://www.mcneese.edu/f/c/9cb690d2/Lesson%20Plan%20Rubric%20Aligned%20with%20InTASC.docx>; <https://www.uwsp.edu/education/Documents/edTPA/Resource12.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/Resource11.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/Resource11a.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/LessonPlanTemplateSOE.docx>; <https://www.uwsp.edu/education/Documents/edTPA/SpecEdLessonPlanGuide.docx>; <https://www.uwsp.edu/education/Documents/edTPA/SpecEdLessonPlanTemplate.docx>