

### Fantastic Fractions

**Lesson Segment Focus: Adding and Subtracting Fractions**

**Lesson : 1 of 2**

**Course & topic : Math, Number and Operations- Fractions**

**Date: 4/15/19 Grade: 5th Grade**

#### Student Outcomes

<p>Specific learning objectives for this lesson.</p>	<ul style="list-style-type: none"> <li>• Students will learn to solve word problems involving the addition and subtraction of fractions with like and unlike denominators.</li> <li>• Students will create a video that demonstrates the addition or subtraction of at least 4 different fraction problems. (Cooking videos can be created to show the addition of measurements.)</li> </ul>
<p>Describe the connection to previous lessons. (Prior knowledge of students this builds upon)</p>	<p>Students learned a lot about fractions in forth grade. They learned about making decimal notation for fractions, as well as adding various kinds of fractions with 10 and 100 as denominators. This year they've already worked on adding and subtracting fractions with unlike fractions. This will be a familiar topic.</p>
<p>Knowledge of students background (personal, cultural, or community assets)</p>	<p>Students will most likely have experienced fractions in their everyday lives. They've probably helped their mom cook, or at least watched her cook, and know about measurement. This knowledge of measurements can be used in creating word problems, as well as bringing forward background knowledge.</p>

#### State Academic Content Standards

<p>List the state academic content standards with which this lesson is aligned. Include state abbreviation and number &amp; text of the standard.</p>	<p><b>AR.Math.Content.5.NF.A.2</b></p> <ul style="list-style-type: none"> <li>• <b>Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators</b></li> <li>• <b>Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers</b></li> </ul>
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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>The teacher has created a video that uses fractions. This will engage the students and get them ready to create their own fraction video. These videos will help students apply their knowledge of fractions and will essentially have the students create and solve 4 "word" problems of their own. These videos can be shown to everyone so that all can benefit. Students will use manipulatives to add and subtract fractions of like/unlike denominators. They can use these side-by-side with the word problems as a visual. Fun fraction videos will also be shown to aide more visual learners. Word walls can be created with definitions, pictures, and translations in other languages.</p>
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### Key Vocabulary

<p>What vocabulary terms/content specific terminology must be addressed for students to master the lesson?</p>	<p><b>Denominator, Numerator, fractions, like fraction, unlike fraction, word problem, Common denominator, equivalent fraction, LCD</b></p>
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### Materials

<p>Materials needed by teacher for <b>this lesson</b>.</p>	<p>Computer, Smart Board, Wifi, YouTube, worksheets, pencils, exit slips, instructions for the assignment, example iMovie, faction game for each group</p>
<p>Materials needed by students for <b>this lesson</b>.</p>	<p>Computers, personal tablets, wifi, iMovie, Clips, pencils, paper, worksheets, exit slips, instructions for assignment, fraction game in each group.</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.
15 minutes	<p><b><u>Introduction:</u></b></p> <p>Students will enter the room and go to their groups. They will be engaged in the lesson by videos on fractions.</p>	<p>(<a href="https://youtu.be/LR2S0TOJime">https://youtu.be/LR2S0TOJime</a> <a href="https://youtu.be/A6IkCdYcFc4">https://youtu.be/A6IkCdYcFc4</a>)</p> <ul style="list-style-type: none"> <li>• Students will watch videos on adding and subtracting fractions.</li> <li>• Students will play the fractions game (<a href="https://youtu.be/ZCwBxwfGgkQ">https://youtu.be/ZCwBxwfGgkQ</a>) in groups of four.</li> </ul>
15 minutes	<p><b><u>Instruction:</u></b></p> <p>The teacher will demonstrate solving various word problems and will point out key phrases to look for in word problems. The students will help by calling out key phrases.</p>	<ul style="list-style-type: none"> <li>• The class will solve word problems together. They will make a list of keywords to look out for and what those keywords mean. Students will participate by helping create multiple word problems.</li> </ul>
15 minutes	<p>Students will solve word problems.</p>	<ul style="list-style-type: none"> <li>• Students will solve individual sheets with word problems. They can work together to solve the problems, but each must complete a worksheet.</li> </ul>
20 minutes	<p>Students will watch teacher video and receive their assignment.</p>	<ul style="list-style-type: none"> <li>• Students will watch the iMovie made by the teacher. The teacher will tell the students that they are to create an iMovie with 4 instances of adding or subtracting fractions in real life. Students can make a cooking video or some other demonstration. They are expected to put the problem they demonstrate into a number sentence on an added slide into their iMovie. They will be given time in this class to start creating their script and will be given in another class to finish the assignment. They can take their school tablets home for the assignment.</li> </ul>
10 minutes	<p><b><u>Closure:</u></b></p> <p>Students will complete an exit slip.</p>	<ul style="list-style-type: none"> <li>• Students will solve a fraction word problem and then write one fraction word problem. They will turn in the solved problem with their name on it and trade papers with the newly written word problems. Students will attempt to solve each others' word problems.</li> </ul>

**Accommodations/Modifications**

How might I modify instruction for:  Remediation? Intervention? IEP/504? LEP/ESL?	Students can be pulled out to work in small group intervention during group work time. Students may need manipulatives to help with the word problems. The word wall and peer partners will help with ESL students. Students with vision problems can sit closer to the Smart Board. Modifications will be made for those who need it and IEPs will be followed.
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**Differentiation:**

How might you provide a variety of instructional methods/tasks/instructional strategies to ensure all student needs are met?	Creating iMovies, playing fraction games, creating word problems, solving word problems, watching videos on fractions, word walls, as well as learning content keywords will give students a variety of ways to learn the material.
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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).	✓ Formative <input type="checkbox"/> Summative	The teacher will grade the worksheet. The teacher will note common misunderstandings that need to be addressed in the next lesson.
	✓ Formative <input type="checkbox"/> Summative	The teacher will grade the Exit slip and created word problem for understand.
	✓ Formative <input type="checkbox"/> Summative	The script for the iMovie will be assessed for progress.

**Research/Theory**

Identify theories or research that supports the approach you used.	N/A
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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> N/A
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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/>

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