

I. What do we want to learn from this lesson? (*Research Lesson Goals for Teachers*)

- ❖ FOR STUDENTS TO UNDERSTAND THE CONCEPT OF FRACTIONS
- ❖ FOR STUDENTS TO BE ABLE TO COMPARE AND ORDER FRACTIONS
- ❖ FOR STUDENTS TO LEARN HOW TO UTILIZE VARIOUS REPRESENTATIONS IN ORDER TO UNDERSTAND, COMPARE, AND ORDER FRACTIONS

II. The overarching Lesson Study goals are:

- ❖ OUR FOCUS IS TO CREATE LESSON PLANS THAT ENGAGE ALL STUDENTS THROUGH REAL-LIFE MATHEMATICAL CONNECTIONS AND HANDS-ON ACTIVITIES IN ORDER TO FACILITATE INCREASED STUDENT MATHEMATICAL UNDERSTANDING.

Steps of Research Lesson	Students	Teacher	Evidence of student learning/engagement	Observer’s Comments: Things to think about for next time
<p>Building a context for the lesson <i>(Connecting to meaningful things or previous lesson)</i> Discussion on why fractions are important.</p>	<p>Doing: 1. Offering input and other ideas as to the importance of fractions. Thinking of their own examples and responding to teacher’s examples.</p> <p>Thinking/Possible Questions or Misconceptions:</p>	<p>Doing: 1. Eliciting conversation around why fractions are important. Sharing examples around land, time, cooking, and money.</p> <p>Possible Responses/ Questions to Pose:</p>	<p>Students are engaged in thinking and discussing the importance of fractions.</p>	<p>N/A</p>
<p>Laying the framework for the learning experience (<i>Launching the activity</i>) Share misconceptions regarding fractions and introduce the ways manipulatives (Circles, Number Line, Conversions to decimals) can help represent and understand fractions.</p>	<p>Doing : 1. Thinking about and discussing errors in the example misconceptions. 2. Investigating the ways manipulatives can be used to represent fractions.</p> <p>Thinking/Possible Questions or Misconceptions: See attachment</p>	<p>Doing: 1. Sharing misconceptions and facilitating discussions regarding these misconceptions (see examples on attachment.) 2. Introducing manipulatives and facilitating discussion surrounding the value of various representations.</p> <p>Possible Responses/ Questions to Pose: ❖</p>	<p>Students are engaged in thinking and discussing the example misconceptions, ways to use manipulatives, and offering additional ideas.</p>	
<p>Engaging students with concepts <i>(Exploring, investigating, problem solving)</i> 1. Students are working in pairs</p>	<p>Doing: Actively problem solving and discussing problems and the use of manipulatives with their partner.</p>	<p>Doing: Walking around visually assessing progress Clarifying questions about the task and ensuring that students are actively engaged.</p>		

<p>practicing using manipulatives to compare fractions. 2. Students are in groups playing Fraction War card game.</p>	<p>Thinking/Possible Questions or Misconceptions: Not understanding place value (i.e. eliminating decimal in their thinking) Not dividing diagrams into equal parts when displaying fractions. (See attachment)</p>	<p>Possible Responses/ Questions to Pose: See attached</p>		
<p>Sharing ideas/solutions <i>(Whole group, small group, written)</i> Share solutions and strategies for practice problems.</p>	<p>Doing: 1. Presenting and discussing the strategies they used to solve their practice problems. Listening while each group shares and offer input to presenters. 2. Presenting and discussing the strategies they used to solve their Fraction War card game problems. Listening while each group shares and offer input to presenters.</p>	<p>Doing: Facilitating presentations and discussions.</p>	<p>Students are actively sharing ideas and listening.</p>	
	<p>Thinking/Possible Questions or Misconceptions: See attached</p>	<p>Possible Responses/ Questions to Pose: See attached</p>		
<p>Closure/Summarizing <i>(Tying ideas together)</i> Students will summarize what they have learned about the concept, comparison, and order of fractions.</p>	<p>Doing: Groups are taking turns sharing what they learned during today’s lesson.</p>	<p>Doing: Making sure that students have learned what they were supposed to learn about fractions today. (Teacher needs to make sure students have clear understanding of concepts and they are not just repeating what they think the teachers want them to say.)</p>	<p>Students explain concepts and offer ideas.</p>	
	<p>Thinking/Possible Questions or Misconceptions:</p>	<p>Possible Responses/ Questions to Pose:</p>		

