

<b>Grade: 7th</b>		<b>Subject: Advanced Math 7<sup>th</sup> Grade</b>	
<b>Materials: notes</b>		<b>Technology Needed:</b>	
<b>Instructional Strategies:</b> <input type="checkbox"/> Direct instruction <input type="checkbox"/> Peer teaching/collaboration/cooperative learning <input type="checkbox"/> Guided practice <input type="checkbox"/> Visuals/Graphic organizers <input type="checkbox"/> Socratic Seminar <input type="checkbox"/> PBL <input type="checkbox"/> Learning Centers <input type="checkbox"/> Discussion/Debate <input type="checkbox"/> Lecture <input type="checkbox"/> Modeling <input type="checkbox"/> Technology integration <input type="checkbox"/> Other (list)		<b>Guided Practices and Concrete Application:</b> <input type="checkbox"/> Large group activity <input type="checkbox"/> Hands-on <input type="checkbox"/> Independent activity <input type="checkbox"/> Technology integration <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Imitation/Repeat/Mimic <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) Explain:	
<b>Standard(s):</b> 7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.		<b>Differentiation</b> <b>Below Proficiency:</b> Provide extra guided practice while the class is working on examples.  <b>Above Proficiency:</b> Help their classmates around them that are confused.  <b>Approaching/Emerging Proficiency:</b> Have student work with a partner in class to continue approaching proficiency.  <b>Modalities/Learning Preferences:</b>	
<b>Objective(s):</b> The learner will be able to find unit rates involving fractions and decimals and use unit rates to solve rate problems.			
<b>Bloom's Taxonomy Cognitive Level:</b>			
<b>Classroom Management- (grouping(s), movement/transitions, etc.):</b> proximity and withitness		<b>Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)</b> Students will be engaged in taking notes and answering/asking questions. Students will be on task during the online activity.	
<b>Minutes</b>	<b>Procedures</b>		
	<b>Set-up/Prep:</b> create Kahoot activity online and prepare notes for class		
5	<b>Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)</b> Briefly review what they have learned about ratios. Use an example to go into how to find unit rates. <b>Use ratio table to introduce a unit rate?</b>		
15	<b>Explain: (concepts, procedures, vocabulary, etc.)</b> <b>Examples:</b> <ul style="list-style-type: none"> <li>▪ 90 miles in 2.25 hours = <math>\frac{90 \text{ miles}}{2.25 \text{ hours}} = 15 \text{ miles/hr}</math></li> <li>▪ 40 apartments on 5 floors = <math>\frac{40 \text{ apt}}{5 \text{ floor}} = 8 \text{ apts./ flr}</math></li> <li>▪ 16 laps in <math>4\frac{3}{4}</math> days = <math>\frac{16 \text{ laps}}{4\frac{3}{4} \text{ day}} = 3\frac{16}{19} \text{ laps/day}</math></li> </ul> <b>Definitons:</b> <ul style="list-style-type: none"> <li>▪ A <b>rate</b> is a ratio of two quantities using different units.</li> <li>▪ A <b>unit rate</b> compares a quantity to one unit of another quantity.</li> <li>▪ <b>Equivalent rates</b> have the same unit rate.</li> </ul> <b>Examples:</b> <ul style="list-style-type: none"> <li>▪ Four gallons of gas cost \$12.80. What was the price of gas per gallon? <b>\$3.20 per gallon</b></li> <li>▪ A car traveled 480 miles in 8 hours. How many miles did the car travel per hour? <b>60 miles per hour</b></li> <li>▪ A baker baked 180 cookie in <math>3\frac{1}{3}</math> batches. How many cookies did the baker bake per batch?</li> </ul>		

	<b>54 cookies per batch</b>	
<b>20</b>	<p><b>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)</b>          Kahoot activity. <b>INSERT URL FOR KAHOOT HERE.</b> If we finish the activity early, they can begin working on their assignment.</p>	
<b>5</b>	<p><b>Review (wrap up and transition to next activity):</b>          Ask students to summarize what rates are and how to find unit rates.</p>	
<p><b>Formative Assessment: (linked to objectives)</b>          Progress monitoring throughout lesson- clarifying questions, check- in strategies, etc. Examples in class and Kahoot activity.  <b>Consideration for Back-up Plan:</b> If students aren't ready to solve unit rates, we can continue review ratios.</p>	<p><b>Summative Assessment (linked back to objectives)</b>          End of lesson: Homework assignment.  <b>If applicable- overall unit, chapter, concept, etc.:</b></p>	
<p><b>Reflection (What went well? What did the students learn? How do you know? What changes would you make?):</b></p>		

Examples: Find the unit rates of the following

90 miles in 2.25 hours

40 apartments on 5 floors

16 laps in  $4\frac{3}{4}$  days

Definitons:

- A **rate** is a ratio of \_\_\_\_\_
- A **unit rate** compares \_\_\_\_\_
- **Equivalent rates** have \_\_\_\_\_

Applications:

Four gallons of gas cost \$12.80. What was the price of gas per gallon?

A car traveled 480 miles in 8 hours. How many miles did the car travel per hour?

A baker baked 180 cookies in  $3\frac{1}{3}$  batches. How many cookies did the baker bake per batch?