


TPA Lesson Plan

Your lesson plan should not exceed four pages.

If you refer to a text, worksheet, slides or whiteboard images, make a copy to include for reviewer. These extra items should not exceed five pages.

Subject	7th grade - Algebra
Standard	STANDARD 7.2.4.2 Solve equations resulting from proportional relationships in various contexts.
Central Focus	To provide experience looking at proportional relationships in real-world examples and solving equations for these real-world situations
Academic Language	Proportional: having a constant ratio to another quantity
Objective(s)	SWBAT solve equations from proportional relationships.
Instructional Resources	<ul style="list-style-type: none"> - Video: https://www.youtube.com/watch?v=STw6lSIHLom - Geoboards - Whiteboards

Lesson Part

Anticipatory Set	<ul style="list-style-type: none"> - <i>"Hello- I am glad to see everyone here! Thank you for coming to class. Today we are going to start off with a community builder. Called '1,2,3,4.' In groups of 3, starts counting off '1,2,3,4'. Everyone then shows a number on their fingers that they thought in your head. The point of the game is to try and add up all of the numbers to 22."</i> - <i>"Are there any questions?"</i> (If there are any, you answer or clarify.) - Students will play the game for about 5-10 min to get them excited, knowing others, and having fun for the beginning of class. - <i>"Well that was fun wasn't it?! I now have a question... Has anyone seen a pyramid in person? WELL, today is your day because WE are going to see a pyramid!"</i> (Pull up video- https://www.youtube.com/watch?v=STw6lSIHLom - start at 10 seconds, end at 4 minutes)
Procedure	<ul style="list-style-type: none"> - <i>"So now since we've seen a pyramid and know what it's actually like, I have another question."</i> (Display two triangles. One smaller, one larger. Put the side lengths of one triangle all on, with only one side displayed for the second triangle.) - <i>If we know the sides of one of the triangles of a pyramid, and the other triangle of another pyramid is proportional (meaning that there is a constant ratio equal to it) could we find the sides of the other triangle? Try it- what do you notice about the sides? What about the length of the other? How do the two compare? If you would like to use your geoboards, go for it."</i> 

	<ul style="list-style-type: none"> - “What have you found? Or noticed? “How did you arrive at your answer?”, “What do you need to do next?”, and “How can you convince me your answer makes sense?”(Ask students to report what they notice and find. “The numbers are all the same on the small one, etc.”) - Once they understand that concept, switch up the numbers and see if they can do it again. - Once they complete that, do another question “If two bags of Takis cost \$7.00, and I wanted to buy 4 bags, how much would it cost me?” - Have students share ideas. Once they understand that, ask “Ok what if I wanted to buy 5 bags?” - If students are stuck, I would scaffold them by asking how they found the last problem. Ask them how to find what only 1 bag would cost, etc.
Assessment	<p>** include rubric**</p> <p>Informal Assessment: During the procedure, by taking note of their answers to those problems, it is clear as to who is understanding how to solve these problems and who does not understand.</p> <p>Exit Ticket: Create an exit ticket for the class with five questions that are relevant to their lives and the material covered in class. Whatever, they don’t finish on the exit ticket is their only piece of homework. They can then turn this in the next day and I will easily see who understood the material and who did not.</p>
Closure	<ul style="list-style-type: none"> - “What did you discover in this lesson today?” - If we can identify a proportional relationship between two things, we are then able to set up an equation and solve it. - Ask students, “Where are some places you could potentially see this used in your own life?”
Accommodations	<p>Geoboards are going to be available for students if they feel they need the manipulative to help them work through the lesson.</p> <p>For EL students, sentence starters will be used, to aid in the language barrier. Pictures will also be incorporated.</p>

Rubric

1	2	3	4
SWBAT Identify a proportional relationship	SWBAT Write equations from proportional relationships	SWBAT Solve equations from proportional relationships	SWBAT Draw conclusions from proportional relationships