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	- **https://www.teacherspayteachers.com/Product/Unit-Rates-Ratios-and-Proportions-Scavenger-Hunt-2823188** - **428 Icebreaker Questions** - Cuisenaire rods

Lesson Part

Anticipatory Set	- *"Hello - I am glad to see everyone here! Thank you for coming to class!* - *"Today, we are going to do a community building activity. I need half of the class to stand in a circle on the outside of the classroom. The other half will stand in a smaller circle closer to the center of the classroom. You will be standing across from one other person. I will ask a question and decide whether the inside or outside person will answer first. You will share your answers and based on my directions; we will rotate."* - This ice breaker will be played for about 10 minutes. It gets students standing and walking around and helps them get to know their classmates. - The questions I will ask are as follows: - *"If you could have any job in the world, what would it be?"* - *"If you were to write a book, what would it be about?"* - *"If you knew you could not fail, what would you do?"* - *"What is your biggest pet peeve?"* - *"Have you ever gone on a treasure hunt or scavenger hunt? And if so, explain."*
Procedure	- *"Well, today you ALL will be completing a scavenger hunt. "What can you all tell me about scavenger hunts?"* One thing I really want to get out of this question is that students might say a scavenger hunt is when you are looking for something. I will use this to then say, "*Yes! You are going to be looking for answers to your math questions today. But I want you to look for something even more specific. What have we been working on this week?* Hopefully they eventually say solving proportions. I will then say, "*When you are working on solving these proportions today, I want you to underline, circle, or mark the evidence that shows you are writing and solving proportions.* - For example, if a card were to say "It took Nicholas 2 hours to travel 9 miles on his skateboard. How long will it take Nicholas to travel 13.5 miles

	to the library on his skateboard?" I would expect students to somehow mark 2 hours, 9 miles, 13.5 miles, and how long. This gets students thinking about what they need to pull out of the problem and what is not necessary. - Students will complete a series of word problems and the answer after each problem leads them to the next question. - The activity ends when all word problems are solved. Students will work in groups of 2. I want students to spread out so they can not hear other groups working. One way to help ensure this happens, is remind students that when going on a real scavenger hunt, what are some of the rules? - Hopefully I get answers like "be quiet, so others don't find the objects, work with your teammates, not against them." - The students will have the class period to work on the scavenger hunt. I foresee no issues in finishing in class. Their only assignment will be the mini scavenger hunt project. - For students who find this too easy, I will challenge them in the assessment piece. Rather than creating only 5 cards, I will challenge them to create a longer scavenger hunt with more difficult numbers. - Also, to get students to think deeper, I can ask them the following, "Prove to me that is the correct answer and show me that there is another way to get the same answer."
Assessment	**** include rubric**** 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. Also, by walking around the classroom, I will be able to see in partnerships if there is an even split of the understanding and work or if one person carried the team. Students will create their own mini scavenger hunt. The requirements for this project can be found here: https://livecsbsju-my.sharepoint.com/personal/mwentwort001_csbsju_edu/Documents/EDUC%20358/Mini%20Scavenger%20Hunt%20Directions.pdf Based on this assignment, I will know if students are able to write and solve proportions on their own.
Closure	- *"Who can tell me what we did in class today?"* - *"What do some of our cards look like after this activity?"* - *"What are some of the words you underlined and marked?"* - *"What do these words tell us in our word problems?"* - Hopefully students tell me these words are evidence that we are identifying a proportion. - *"With what we have learned the past two days, what can you tell me about proportions?"* - I would hope they would tell me, we know how to identify a proportion in pictures and word problems, we can set up a proportion, and we can solve for an unknown in the proportion.

	- Looking ahead, we are going to work on drawing some more conclusions from our answers to proportional relationships and giving our numbers some meaning.
Accommodations	I can easily rewrite some of the cards if there is a language barrier for ELLs. For students who are not ready to write a word problem and then solve it, I can have a set of mini scavenger hunts pre-made with blanks to fill in. This allows students to still be creative and create their own problems and still have a chance to complete the assessment portion by solving these problems they created. I will have cuisenaire rods and other manipulatives available if students feel they still need them to help solve the proportions.

Rubric

1	2	3	4
SWBAT Identify a proportional relationship	SWBAT Write equations from proportional relationships	SWBAT Solve equations from proportional relationships	SWBAT Create a proportional relationship and draw conclusions from proportional relationships