Lesson Plan Template

Grade: 8th grade	Subject: Math 8
Materials: Pre-recorded video	Technology Needed: Computer for each student

Instructional Strategies:	Guided Practices and Concrete Application:
☐ **Direct instruction** (highlighted) ☐ Peer teaching/collaboration/ cooperative learning ☐ **Guided practice** (highlighted) ☐ Visuals/Graphic organizers ☐ Socratic Seminar ☐ PBL ☐ Learning Centers ☐ Discussion/Debate ☐ Lecture ☐ Modeling ☐ **Technology integration** (highlighted) ☐ Other (list)	☐ Large group activity ☐ Hands-on ☐ **Independent activity** (highlighted) ☐ **Technology integration** (highlighted) ☐ Pairing/collaboration ☐ Imitation/Repeat/Mimic ☐ Simulations/Scenarios ☐ Other (list) Explain:

Standard(s)	Differentiation
8.EE.5 Graph proportional relationships, interpreting the unit rate as the slope of the graph. **Compare two different proportional relationships represented in different ways.**	**Below Proficiency:** Students will be able to identify if a slope is positive or negative but may not be able to find the exact value of the slope. **Above Proficiency:** Students will have a strong understanding of what the slope is and be able to properly use the formula to find the slope given the information needed. **Approaching/Emerging Proficiency:** Students will be able to identify a positive or negative slope and be able to find the slope most of the time when given what's needed. They may flip how the formula is used or miss a negative sign. **Modalities/Learning Preferences:** Students will have a video to watch as well as some direct instruction in class that they will be able to ask questions and see more problems worked out in person. Students will also be given two different homework assignments to give them enough practice with the work
Objective(s) After this lesson the students will be able to understand what the slope is and how to find it given a line in a graph and a table of points. **Bloom's Taxonomy Cognitive Level:** Understand—students will understand what a slope means and how it can be applied in the real world for problems. Apply—students will be able to use the information discussed in their homework assignments.	

Classroom Management- (grouping(s), movement/transitions, etc.)	Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)
Students will be sitting in an appropriate spacing for COVID reasons. They will come into class and sit in their assigned seats. Transitions will be prompts from me to switch to what they are supposed to be doing.	Students will be expected to be sitting quietly during the review as well as participate when asked questions. Once the lesson review is done, they will begin their assignments and ask questions as they arise in their work.

Minutes	Procedures
30	**Set-up/Prep:** I will have already made the video for the students to watch prior to coming to class. I will have prepped a few other examples to work on with the students to help solidify their understanding of the material.
5	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)** I will do a quick check in with the students to see if they have watched the video and see if they have any immediate questions following the video.

15	**Explain: (concepts, procedures, vocabulary, etc.)**
	We will go through a couple example problems and make sure that the students know what is going on with a slope value on a graph and in the table.
	Slope=(rise)/(Run)= (change in y)/(change in x)= $(y_2-y_1)/(x_2-x_1)$
	Video examples:
	$y=4$
	$y=-\frac{3}{2}x+\frac{1}{2}$
	$y=2x-3$
	Lines to go through:
	   • $y=-2x+(14/3)$
	   • $y=4x-4.75$
	   • $y=(4/5)x-3$

	Tables to go through				
	x	1	5	9	13
	y	9	7	5	3
	███	███	███	███	
	x	2	4	6	8
	y	-1	3	7	11

65	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)** This is when they will be given time to work on their homework. This work will give them a chance to see what they are unsure of and get the help they need. I can readdress certain things that have troubled many students and give other advice as the lesson goes.
5	**Review (wrap up and transition to next activity):** During this time, I will see if I need to clarify any questions the students have and get the desks cleaned up as per COVID regulations in the school.

Formative Assessment: (linked to objectives)
Students will help solve problems on the board in order to check their understanding during the review of the lesson. I will be able to see who is answering most questions and be able to give others help once they start on their homework.

   Progress monitoring throughout lesson- clarifying questions, check-
   in strategies, etc.
I will ask questions as I review to see if the students understand the material. I will also walk around after the assignment has been started by students to make sure that they students are understanding the material.

   Consideration for Back-up Plan:
If we have a canceled class, I can make the lesson online to cover my examples that I wanted to go through and students can watch the video to help get clarity to how the problems work. It will be harder to try to check in with the students to see how their work is coming.

Summative Assessment (linked back to objectives)
   End of lesson: Students will have an assignment to check their understanding and give them practice.

   If applicable- overall unit, chapter, concept, etc.:
At the end of the concept there will be a test on this and other concepts to see if students understand the concepts

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):

The lesson went well I think that I should have shown an example of why only one value is negative and ask the students if it is right. This would hammer home the point on positive and negative slopes. I think the students we able to figure out what the slope was and how to find it because they were active during the review after watching the video. Make sure to use change in y over change in x rather than the slope formula as that is too complicated for them. Talking about the change between different values in the table was much easier for them to understand. The slope formula would be good to introduce to students who are high flyers and need a challenge to get more out of the lesson.