



Lesson Plan

Student Teacher	Linda Bouguila		CT Supervisor	
Date	Start/End Time	8:05 – 8:55 AM 50 mins	Room	

Title of lesson	Application/Review of Similar Triangles	Grade level	Secondary IV
Subject	Mathematics	Topic	Similar triangles
Relevance	<i>Similar triangles are in our everyday lives, from architecture to tools to clothes. When reproducing a triangle following a certain ratio (either making it larger or smaller), one should know how to take into consideration the proportions.</i>		
Materials/Resources Required	Paper (provided) Pencil, eraser Calculator Computer		
QEP Subject Area Competencies	<ul style="list-style-type: none"> - Understand that mathematics [, science and technology] are important components of general knowledge; - Understanding of information using mathematical language; - Analysis of data found resulting from different types of observation. 		
Learning Objectives	<ol style="list-style-type: none"> 1. Determines the minimum conditions required to conclude that triangles are congruent or similar. 2. Demonstrates the congruence or similarity between triangles or finds unknown measurements using minimum conditions. 		
Essential Question(s)	How can we use similar triangles to determine missing measurements?		

Lesson Timing	Introduction (hook):	Students will know:
12 mins	<p><i>Start by asking students how they are, collecting any assignments that need to be handed in.</i></p> <p><i>Introduction:</i></p> <p><i>What do we remember from last class? What was our chapter about?</i></p> <p><i>I will go over a review of our chapter, briefly tackling:</i></p> <ul style="list-style-type: none"> - <i>Congruent triangles and what they are</i> - <i>Thales' theorem</i> - <i>Metric relations, steps to do to solve</i> - <i>And finally similar triangles because this is what we are working on today so I will go over:</i> <ol style="list-style-type: none"> 1. <i>What similar triangles are</i> 2. <i>How to prove similarity (three different cases)</i> 3. <i>How to find "k", proportion constant</i> 4. <i>How to find missing sides using "k", and algebraic special cases when solving.</i> 	<p>By the end of this entire unit, students will have acquired knowledge about:</p> <ul style="list-style-type: none"> - Congruent triangles - Similar triangles - Thales' theorem - Metric relations in right triangles - How to apply all the above in situational problems.



<p>5 mins</p> <p>13 mins</p>	<p>Development (Learning activities – step by step sequential procedure):</p> <p><i>The goal of this lesson is to apply the knowledge and theory of similar triangles into word problems. Students will be told that there will not be any multiple choice, short answer, or long answer questions on the ministry exam about this topic but that it will only be on situationals. They will be reminded NOT to make a memory aid since they will be allowed to use the condensed notes. Instead, they can take extra notes as needed on the condensed notes themselves.</i></p>	<p>Students will understand:</p> <p><i>Students will be able to explain:</i></p> <ul style="list-style-type: none"> - <i>The conditions needed to prove that two triangles are similar,</i> - <i>What the similarity ratio is,</i> - <i>How to calculate the similarity ratio,</i> - <i>How to use the similarity ratio to find a missing side in a triangle,</i> - <i>How to identify keywords in a word problem.</i>
<p>10 mins</p>	<p><i>Now, for the lesson, they will be shown the first word problem in the document (attached) which we will solve as a class.</i></p> <p><i>Solving this first problem as a class is for them to remember the steps to solve similar problems, calculations, keywords etc.</i></p> <p><i>I will read the problem out loud and ask at the end for someone to restate in their own words what the problem is. I will ask someone else to rephrase. Then, I will ask the class what they think we should do.</i></p> <p><i>We will then proceed with solving the problem as a class.</i></p> <p><i>I will then ask someone at the end to summarize what was done, and ask if anyone has any questions.</i></p> <p><i>The students will then be asked to proceed to the next problems either individually or in groups.</i></p> <p><i>Instead of correcting as a class, I will individually walk around to give individual feedback to each student depending on their pace since this is a smaller group of students.</i></p>	<p>Students will do:</p> <p><i>Students will eventually be able to:</i></p> <ul style="list-style-type: none"> - <i>Calculate and use the similarity ratio,</i> - <i>Identify what concept is needed to solve a word problem with triangles,</i> - <i>Identify what the question is asking and what steps are needed,</i> - <i>Identify the relevant and irrelevant information within a word problem.</i>
		<p>Cross Curricular Competencies:</p> <ol style="list-style-type: none"> 1. Uses information: students will identify the value of each piece of information and answer their questions using the information gathered.



5 mins		<ol style="list-style-type: none"> 2. Uses creativity: students will play with ideas (as they come up with their own graph). 3. Cooperates with others: students will participate actively in classroom activities, exchange points of views, and listen to others.
	<p>Closure (transition): <i>For the last 5 minutes of class, students will be asked if they have any questions/findings that they would like to share with the class, and will be given time to continue working on their worksheets or on assignments that need to be handed in. They will also be asked to make corrections to any mistakes that I have pointed out and have their work rechecked.</i></p>	<p>Universal Design for Learning / Differentiation</p>
		<p><i>Students will be given individualized feedback and will be given time to work at their own pace to accommodate their different needs.</i></p>
		<p>FORMATIVE - Assessment FOR learning:</p>
		<p><i>The discussion at the beginning of class allows each student to assess how their learning is and what they remember. Their contributions to the discussion show me what they recall and how confident they are with the material.</i></p>
		<p>FORMATIVE - Assessment AS learning:</p>
		<p><i>Working on their worksheets individually.</i></p>
	<p>SUMMATIVE - Assessment OF learning:</p>	
	<p><i>Correcting their work.</i></p>	