

INSTRUCTIONAL DESIGN PROJECT TEMPLATE

<p>Content. It is about the main ideas of the lesson</p>	<p>Describe: content here. (COMMON CORE STANDARDS)</p> <p>CCSS.MATH.CONTENT.8.G.B.7 Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.</p> <p>Describe: Standards of mathematical Practice (common core)</p> <p>CCSS.MATH.PRACTICE.MP1 Make sense of problems and persevere in solving them.</p> <p>CCSS.MATH.PRACTICE.MP3 Construct viable arguments and critique the reasoning of others.</p> <p>CCSS.MATH.PRACTICE.MP4 Model with mathematics.</p> <p>CCSS.MATH.PRACTICE.MP6 Attend to precision.</p> <p>CCSS.MATH.PRACTICE.MP8 Look for and express regularity in repeated reasoning.</p>
<p>Pedagogy. Pedagogy includes both what the teacher does and what the student does. It includes where, what, and how learning takes place. It is about what works best for a particular content with the needs of the learner.</p>	<p>1. Describe instructional strategy (method) appropriate for the content, the learning environment, and students. This is what the teacher will plan and implement.</p> <p>For this lesson, I am using a Before, During, After (also known as “Launch, Explore, Summarize”). I will present the students with a question, and I will allow them time to think about it and draw a picture.</p> <p>2. Describe what learner will be able to do, say, write, calculate, or solve as the learning objective. This is what the student does.</p> <p>The students will think about a right triangle, and they will then remember the Pythagorean theorem and will use that to solve the question. They will calculate the missing side of the triangle, in this case the hypotenuse.</p> <p>3. Describe the 21st century skill you will address in your lesson</p>
<p>Technology.</p>	<p>1. Describe the technology: What is the technology and what are the different functionalities of the technology you will use for the lesson</p> <p>For this lesson, Geometer Sketchpad (GSP) will be used to project the work. GSP can be used to display data, text, and accurate constructions of shapes and figures.</p> <p>2. Describe how you will use the technology as a tool to enhance the lesson, transform the content, and/or supports pedagogy (NCTM, 2003).</p> <p>GSP will enhance this lesson by providing the means for demonstrations, precision in measurements and</p>

	calculations, and the possibility for student interactions.
	3. Describe how the technology will affect student's thinking processes (NCTM, 2000)
	By showing the different figures at certain points in the lesson, the technology can lead the students on the correct thought process. For example, the hide/show action buttons provide the ability to hide or show important information about the mathematics. It allows the teacher to present the information in a different and uncommon way.
Representations.	1. Describe the different representations you will use in your lesson
	This lesson will use representations in terms of algebra, or drawing constructions.
	2. Describe how you will use the different functions of multiple representations in your lesson to enhance the lesson
	The drawing constructions help display the area of the squares that can be formed from the sides of the triangles, so the visual students can see the relationships. The algebraic representations will help the students that need to have firm mathematical calculations for proof that the theorem works for all right triangles.