Lesson Plan Template

Grade: Geometry | **Subject: Math**

Materials: Reading Pamphlet | **Technology Needed: N/A**

Instructional Strategies:

- ☐ Direct instruction
- ☐ Guided practice
- ☐ Socratic Seminar
- ☐ Learning Centers
- ☐ Lecture
- ☐ Technology integration
- ☐ Other (list)
- ☐ Peer teaching/collaboration/ cooperative learning
- ☐ Visuals/Graphic organizers
- ☐ PBL
- ☐ Discussion/Debate
- ☐ Modeling

Guided Practices and Concrete Application:

- ☐ Large group activity
- ☐ Independent activity
- ☐ Pairing/collaboration
- ☐ Simulations/Scenarios
- ☐ Other (list)
- ☐ Hands-on
- ☐ Technology integration
- ☐ Imitation/Repeat/Mimic

Explain:

Standard(s)

8.G.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

Objective(s)

I want my students to find real uses of math in the real world and know that what they are learning can make a difference as best as I can. This specific article works with the Pythagorean Theorem and how to save whales using the theorem.

Bloom's Taxonomy Cognitive Level:
apply
analyze

Differentiation

Below Proficiency:
Students would not understand the concept of the problem, but understood the article and see how the Pythagorean Theorem relates to this problem

Above Proficiency:
Students will understand the material and the math involved behind the problem.

Approaching/Emerging Proficiency:
Students will have a grasp of how the problems is solved, but not fully see how the formula was solved.

Modalities/Learning Preferences:
After the students have read through the material, I would draw one picture with the problem on it to show the students what was going on with the problem. The picture would help the students see all the variable and how they were used in the derivation of the formula at the end.

Classroom Management- (grouping(s), movement/transitions, etc.)
Students will be set up at the table for them to easily pair up. Some will have to be facing backwards to make sure everyone fits on the table.

Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)
Students should follow directions and raise hands if they have any questions. They will read the article and use annotations and coding to make quick analysis of their reading.

Minutes	Procedures
15	**Set-up/Prep:** I will need to print out the document about the Pythagorean Theorem and reread the article to be ready to discus this with students.
5	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)** I will ask the students what whales and the Pythagorean Theorem have to do with each other. I will then discuss a little more with them about that and then show them a little about whales and ships.
2	**Explain: (concepts, procedures, vocabulary, etc.)** I'll let the students know I want them to read through the article and will be told that I want them to use text coding to help them annotate the article. I will also bring up how large some whales are to give them an idea of why they would want to be avoided by ships.
6	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)** Students will read the article and annotate it how they were told to make as many connections as they can. After every student is done reading, we will break into groups of two or three and then back as the whole class after the small groups.
4	**Review (wrap up and transition to next activity):** Quick discussion on what they had for takeaways from the article with partners then pull together as a large group to add to the discussion. what the students think could be used as a real-world use of the Pythagorean Theorem. One could be surveying among others

Formative Assessment: (linked to objectives)
Progress monitoring throughout lesson- clarifying questions, check-

Summative Assessment (linked back to objectives)
End of lesson:

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in strategies, etc. **I will walk around the room making sure that the students are annotating the material. Once the students are grouped up, I will walk around making sure they are having a meaningful conversation.** **Consideration for Back-up Plan:**	**Ask my students to think of some other ways they could use the theorem in the real world. This could lead into a little bit of a research project or something along those lines.** **If applicable- overall unit, chapter, concept, etc.:**

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

List the variables with what they represent
don't say no on answers given to the first question
Don't walk around too much.