Pythagorean Theorem

Summary

Summary: In this project students will further explore their knowledge of right triangles by viewing videos and doing sample problems for practice.

Main Core Tie

Mathematics Grade 8
Strand: GEOMETRY (8.G) Standard 8.G.7

Time Frame

1 class periods of 45 minutes each

Group Size

Pairs

Life Skills

Thinking & Reasoning, Communication, Systems Thinking

Materials

computer, ipad, tablet, smart phone

Background for Teachers

teachers will want to teach this lesson after the students have learned the qualities of right triangles. Students should know how to use and measure triangle sides. Students may do this activity at home, in the classroom individually, or as a cooperative activity

Student Prior Knowledge

students will need to know the properties of a right triangle and be able to label the parts of a right triangle.

Intended Learning Outcomes

students will explore the pythagorean theorem and discover how to find the missing side lengths. Real life models will be used to help the students learn in a constructionist learning environment.

Instructional Procedures

1. In the computer lab the students will work with a partner. 2. Log into the Blendspace Pythagorean theorem activity. 3. Watch the instructional videos available on the Blendspace program. http://blnds.co/1pNgMRi 3. The students will be able to work collaboratively on the practice problems to discover the missing lengths of right triangles. 4. The students will be able to "self-check" their work with the teacher's answer key. 6. Students should collaborate with another group if they have questions or difficulties. Remember: ask2beforeme 7. If there is time, have students create their own real life right triangle problem to share with the class.

Strategies for Diverse Learners

The lesson can be easily adapted to any level of student. A student who may be struggling can be included in another group that is experiencing success. Gifted students can be more challenged by

adding additional right triangle structures, and finding their perimeters, side lengths, areas, and angle measurements

Extensions

By use of a summary paper, students will use their writing skills from their English curriculum. While presenting their findings, students can also practice their public speaking skills.

Authors

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