8th Grade - Unit 2 - Math - Geometry - Pythag

Content Area: **Mathematics**
Course(s): **Math 6, Generic Course**
Time Period: **Generic Time Period**
Length: **10 days**
Status: **Published**

Established Goals/Standards

Please choose the appropriate Goals/Standards from the Standards tab above.

MA.8.G.B	Understand and apply the Pythagorean Theorem.
MA.8.G.B.6	Explain a proof of the Pythagorean Theorem and its converse.
MA.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.
MA.8.G.B.8	Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

Essential Questions

Please add your Essential Questions by clicking on the Lists tab above.

- How do you compute the distance and midpoint within problems?
- How does Pythagorean's Theorem help solve real world problems?
- What is Pythagorean's Theorem?

Enduring Understanding

Please add your Enduring Understandings by clicking on the Lists tab above.

- Pythagorean's Theorem shows the relationship between the sides of a right triangle.
- The midpoint and distance of two points can be found by using the corresponding formula.
- The Pythagorean Theorem aids in solving problems involving right triangles.

Content

Students will be able to:

- Use Pythagorean's Theorem to find the missing side of a right triangle.
- Explain the proof of Pythagorean's Theorem.
- Use Pythagorean's Theorem to solve problems involving distance and mipoints.
- Solve real world application problems using Pythagorean's Theorem.
- Solve problems using the Triangle Inequality Theorem and the Converse of Pythagorean's Theorem

Vocabulary:

- Pythagorean's Theorem
- Converse of Pythagorean's Theorem
- Coordinate plane
- Hypotenuse
- Leg
- Origin
- Quadrants
- Triangle Inequality Theorem
- Midpoint
- Distance

Assessment

Resources

- Savvas enVision textbook and online resources
- Teacher made flip-charts
- Web-based activities (IXL, Delta Math, Edpuzzle)
- Teacher made worksheets/assessments
- mad minutes
- NJCTL.org (PMI math)
- Pizzazz series of worksheets