8th Grade - Unit 8: Math - 3D Geometry

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

Established Goals/Standards

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

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.C.9	Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

Essential Questions

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

- How can the volume of a 3-dimensional figure help me solve real word problems?
- How can you find the volume of a 3-dimensional figure?
- What is a 3-dimensional figure?

Enduring Understanding

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

- A 3-dimensional figure is a figure that incorporates depth as one of its dimension
- The formulas for volume have many real world applications.
- Volume can be found by using the appropriate formula.

Content

Students will be able to:

- Identify solids
- Identify parts of a solid
- Identify skew lines.
- Find the volume of prisms and cylinders.
- Find the volume of prisms and cones.
- Find the surface area and volume of a sphere.
- Use proportions to find missing measurements of similar solids.

Vocabulary:

- Solids
- Polyhedron
- Prisms
- Pyramids
- Cone
- Cyclinder
- Sphere
- Skew lines
- Surface area
- Volume

Assessment

Resources

- Savvas enVision textbook and online resources
- Teacher made flip-charts
- Web-based activities (mathplayground.com) (coolmath.com)
- Teacher made worksheets/assessments
- mad minutes
- NJCTL.org (PMI math)
- Pizzazz series of worksheets