

Teacher / Team Name: Geometry Honors

Topic: Unit 11: Surface Area and Volume of Solids (HON)

Days: 15

Subject(s): Math

Grade(s): 8th, 9th, 10th, 11th, 12th

Know:

Understand:

Do:

<p>Key Vocabulary</p> <p>Lateral area formulas Surface area formulas</p> <p>Volume formulas</p>	<p>Properties and formulas of surface area and volume of solids will be understood and used.</p>	<p>Identify and draw right and oblique solids and their nets.</p> <p>Identify, sketch, find the area and/or perimeter cross sections of solid objects. **</p> <p>Find lateral areas and surface area of solids.</p> <p>Find volume of solids.</p> <p>Determine how the volume of a solid is affected by changing its dimensions.</p> <p>Identify parts of a sphere.</p> <p>Identify and use properties of congruent and similar solids.</p>
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Which standards are students learning in this unit?

MA.912.G.7.2: Describe the relationships between the **faces**, **edges**, and **vertices** of polyhedra.

Describe and make regular, non-regular, and **oblique** polyhedra, and sketch the **net** for a given polyhedron and vice versa.

MA.912.G.7.3: Identify, sketch, find areas and/or **perimeters** of cross sections of solid objects.

MA.912.G.7.4: Identify **chords**, tangents, **radii**, and **great circles** of **spheres**.

MA.912.G.7.5: Explain and use **formulas** for lateral **area**, surface **area**, and **volume** of solids.

MA.912.G.7.6: Identify and use properties of **congruent** and similar solids.

MA.912.G.7.7:

Determine how changes in **dimensions** affect the surface **area** and **volume** of common geometric solids.

MA.912.G.8.2: Use a variety of problem-solving strategies, such as drawing a diagram, making a chart, guess-and-check, solving a simpler problem, writing an equation, and working backwards.