Unit 7 - Modeling with Equations & Measurement

9 days of Block instruction

These standards expand in all Units of Geometry to reinforce real-world phenomena.

Unit 7	***Geometry: Concepts and Connections*** **Modeling with Equations and Measurement**	**Considerations or scaffolds for Support**
Day 1	**Standard(s)**: **G.GSR.9.1; G.MP; G.MM.1.1; G.MM.1.4** Use volume formulas for prisms, cylinders, pyramids, cones, and spheres to solve problems including right and oblique solids **LT**: I am learning the volume formulas for three-dimensional right and oblique solids. **SC**: o I can use the formulas for volume of a prism, cylinder, pyramid, cone, and sphere. o I can use and explain Cavalieri's Principle to find the volume of oblique solids. o I can find the volume of composite solids to explain real-life phenomena. **Daily 10 Warm up- Which one does not belong?** **Lesson/Activity**: Vocabulary Guided notes IXL skill plan U.5 Volume of Prisms and Cylinders Delta Math- Volume of prisms and cylinders **Resources:**	Scaffolding throughout the lesson and applications will be provided for rigor. Students will work in pairs for turn and talk. Graphic organizers

	IXL, Delta Math, Vocabulary Wall, Calculators, Chromebook, **Resources:** IXL, Delta Math, Vocabulary Wall, Calculators, Chromebook Volume of Pyramids and Cone Instructional Learning Plan	

Day 2	**Standard(s)**: **G.GSR.9.1; G.MP; G.MM.1.1; G.MM.1.4** Use volume formulas for prisms, cylinders, pyramids, cones, and spheres to solve problems including right and oblique solids **LT:** I am learning the volume formulas for three-dimensional right and oblique solids. **SC**: o I can use the formulas for volume of a prism, cylinder, pyramid, cone, and sphere. o I can use and explain Cavalieri's Principle to find the volume of oblique solids. o I can find the volume of composite solids to explain real-life phenomena. **Daily 10 Warm up- Which one does not belong?** **Lesson/Activity**: Vocabulary - Guided notes IXL skill plan U.6 Volume of Pyramids and Cones Delta Math- Volume of Pyramids and Cones **Resources:** IXL, Delta Math, Vocabulary Wall, Calculators, Chromebook, Volume of Pyramids and Cone Instructional Learning Plan Inspire- http://tinyurl.com/56feftud **Resources:** IXL, Delta Math, Vocabulary Wall, Calculators, Chromebook	Scaffolding throughout the lesson and applications will be provided for rigor. Students will work in pairs for turn and talk. Graphic organizers

Day 3	**Standard(s): G.GSR.9.1; G.PAR.2.3; G.MP; G.MM.1.1; G.MM.1.4** Use volume formulas for prisms, cylinders, pyramids, cones, and spheres to solve problems including right and oblique solids **LT:** I am learning to compare the volumes of various solids. **SC**: o I can use the formulas for volume of a prism, cylinder, pyramid, cone, and sphere. o I can use and explain Cavalieri's Principle to find the volume of oblique solids. o I can find the volume of composite solids to explain real-life phenomena. o I can compare the volumes of various solids **Lesson/Activity:** Volume of Spheres and Volume of Composite Shapes Guided Notes IXL skill plan- U.6 Volume of Spheres U.7 Volume of composite shapes Delta Math- volume of spheres and compound shapes Comparing Volumes Instructional Learning Plan Inspire- http://tinyurl.com/mvmearzx **https://www.geogebra.org/m/au8abejf**	Scaffolding throughout the lesson and applications will be provided for rigor. Students will work in pairs for turn and talk. Graphic organizers

	https://threeacts.mrmeyer.com/popcornpicker/ **Resources:** Guided Notes, vocabulary wall, Delta Math, calculator, chrome book	
Day 4	**Standard(s): G.GSR.9.1; G.MP; G.MM.1.1; G.MM.1.4** Use geometric shapes, their measures, and their properties to describe objects and approximate volumes. **LT:** I am learning to compare the volumes of various solids. **SC**: o I can use the formulas for volume of a prism, cylinder, pyramid, cone, and sphere. o I can use and explain Cavalieri's Principle to find the volume of oblique solids. o I can find the volume of composite solids to explain real-life phenomena. o I can compare the volumes of various solids **Lesson/Activity:** Quiz Day **Resources:** Guided Notes, vocabulary wall, Delta Math, calculator, chrome book	Scaffolding throughout the lesson and applications will be provided for rigor. Students will work in pairs for turn and talk. Graphic organizers

Day 5	**Standard(s): G.GSR.9.2; G.PAR.2.3; G.MP; G.MM.1.1; G.MM.1.4** Use geometric shapes, their measures, and their properties to describe objects and approximate volumes. **LT**: o I am learning to describe objects and approximate the volume of geometric shapes. **SC**: o I can choose the appropriate geometric solid to approximate volumes of irregular objects. **Lesson/Activity:** Guided Notes Approximating Volumes of Irregular Objects Instructional Learning Plan Inspire- http://tinyurl.com/mr3xub7c **Resources:** Guided Notes, vocabulary wall, Delta Math, calculator, chrome book	Scaffolding throughout the lesson and applications will be provided for rigor. Students will work in pairs for turn and talk. Graphic organizers
Day 6	**Standard(s): G.GSR.9.2; G.PAR.2.3; G.MP; G.MM.1.1; G.MM.1.4**	

	Use geometric shapes, their measures, and their properties to describe objects and approximate volumes. **LT**: o I am learning to describe objects and approximate the volume of geometric shapes. **SC**: o I can choose the appropriate geometric solid to approximate volumes of irregular objects. **Lesson/Activity:** "Load Calculation Project" **Resources:** Guided Notes, vocabulary wall, Delta Math, calculator, chrome book	

Day 7	**Standard(s): G.GSR.9.3; G.MM.1.1; G.MM.1.4** Apply concepts of density based on area and volume in modeling situations. **LT**: o I am learning about density based on area and volume formulas. **SC**: o I can choose the appropriate geometric figure or solid to approximate the density of irregular objects **Lesson/Activity:** Surface Area of rectangular/triangular prism and cylinder Guided Notes IXL skill plan- V.9 Calculate density, mass, and volume Delta Math- volume, density, and unit conversions. Density Instructional Learning Plan Inspire- **http://tinyurl.com/ywc2nz78** **Resources:** Guided Notes, vocabulary wall, number diagram, Delta Math, calculator, chrome book	

Day 8 **Day 9**	**Standard(s): G.GSR.9.3; G.MM.1.1; G.MM.1.4** Apply concepts of density based on area and volume in modeling situations. **LT**: o I am learning about density based on area and volume formulas. **SC**: o I can choose the appropriate geometric figure or solid to approximate the density of irregular objects **Lesson/Activity:** Surface Area of rectangular/triangular prism and cylinder Guided Notes IXL skill plan- V.9 Delta Math- volume, density, and unit conversions. **Resources:** Guided Notes, vocabulary wall, number diagram, Delta Math, calculator, chrome book —--- Test Day **Lesson/Activity:** Edulastic - Unit 7 Test - Equations & Measurement	Scaffolding throughout the lesson and applications will be provided for rigor. Students will work in pairs for turn and talk. Graphic organizers