

**UNIT 10: SPATIAL REASONING**

**\*\*NEED CALCULATOR & SHOW ALL CALCULATIONS\*\***

LESSON	TOPIC	BOOK / VIDEO	CC STANDARDS	HOMEWORK
Day 1	Solid Geometry Introduction	10-1	G-GMD.B.4 7.G.A.3	WORKSHEET 10-1L
Day 2	Cylinders	10-4&10-6	G-MG.A.1 G-GMD.A.1 G-GMD.A.2 G-GMD.A.3 G-MG.A.1 G-GMD.A.2	WORKSHEET 10-2L
Day 3	Prisms & Quiz	10-4&10-6		WORKSHEET 10-3L
Day 4	Cones	10-5&10-7		WORKSHEET 10-4L
Day 5	Pyramids & Quiz	10-5&10-7		WORKSHEET 10-5L
Day 6	Composite Solids	10-6&10-7		WORKSHEET 10-6L
Day 7	Spheres & Quiz	10-8		WORKSHEET 10-7L
Day 8	Word Problems & Applications – Density, Modeling, Pouring Rate, Design			G-GMD.A.3 G-MG.A.1 G-MG.A.3 G-MG.A.2
Day 9	More Word Problems & Applications; Review for Test			REVIEW PACKET
Day 10	Test	7.G.B.4; 8.G.B.7&9; MP.6 & MP.7		BRIDGE TO UNIT 11 CUMULATIVE REVIEW #10

DAY	MAIN POINTS / FORMULAS TO REMEMBER	QUESTIONS AFTER HMWK
10-1	right square prism    oblique cylinder    right regular triangular prism  <div style="border: 1px solid black; padding: 5px; display: inline-block;">Draw each:</div>	
10-2-5	1. Complete Cylinders, Prisms, Cones, Pyramids on Graphic Organizer 2. Solids can be formed by <ul style="list-style-type: none"> <li>• 2 bases: translating the base into a _____ plane</li> <li>• 1 or 2 bases: _____ congruent or similar base areas</li> <li>• 1 base: _____ a base from a point</li> <li>• Circular base(s): _____ a figure about a line/axis. Draw each rotation and name/describe the solid created:</li> </ul> <div style="text-align: center;"> </div>	10-2
		10-3
		10-4
		10-5
10-6	Volume of a composite solid involves addition and/or _____.	
10-7	Complete Spheres on Graphic Organizer	
10-8	Density = _____ Watch out for _____ conversions in word problems!	
Review		

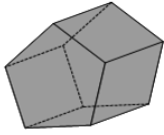
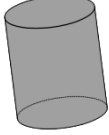
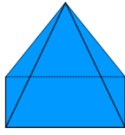


## Geometry Unit 10 Graphic Organizer

### Vocabulary Reminders:

- Face, Edge, Vertex
- Base vs. Lateral Face
- Net
- Regular
- Right vs. Oblique
- Cross Section/Slice

### Remember solids can be created by translating, rotating, stacking, or dilating

- Lateral Area LA
- Surface Area SA
- Slant Height  $\ell$
- Height/Altitude H
- Apothem a
- Perimeter P
- CARD for circles
- Great Circle & Hemisphere
- Volume V
- Density

Properties	Geometric Solid				
	Prism	Cylinder	Pyramid	Cone	Sphere
Shape of Base & Relationship					
Number of Bases					
Ways Solid Can Be Formed	1. 2.	1. 2. 3.	1. 2.	1. 2. 3.	1.
Shape of Lateral Faces	if right → if regular →	if right →	if right → if regular →	if right →	
Shape of Cross Section ( $\parallel$ to base)					Great Circle is centered at the _____ of the sphere
Possible Shape(s) of Slice					
Formula for Volume <div style="border: 1px solid black; padding: 5px; display: inline-block;">                     B = _____                      of base                      H = _____                      of solid                 </div>					
Example – draw in one each as appropriate: altitude $h$ , axis, slant height $\ell$ , apothem $a$ , radius $r$					
Net (use to find surface area)			$\ell =$	$\ell =$	No net, but formula for surface area of a sphere: SA =