Learning Goal ***(This unit we will……)***

- Solve problems involving the surface areas and volumes of three-dimensional figure
- Determine through investigation the optimal value of various measurements.

Success Criteria ***(I can……)***

- use the formulas for the volume of a prism, pyramid, cone, and sphere
- use the formulas for the surface area of a prism, pyramid, cone and sphere
- solve problems involving the surface areas and volumes of prisms, pyramids, cylinders, cones, and spheres, including composite figures
- Determine minimum surface area and maximum volume of square-based prisms and cylinders given fixed information.
- Solve word problems involving the maximum/minimum of geometric shapes and explain their significance.

Day	**Topic**		**Practice Questions**	**Done** ✓
1	Volume of Prisms, Pyramids, Cylinders, Cones and Spheres		Page 441 #2b,4b,6 Page 454-455 #1ac,2b,3,4,5 Page 465-466 #1a,3,4,5	
2	Volume Applications		Volume Worksheet	
3	Work Period		Extra Practice Worksheet	
4	Surface Area of Prisms, Pyramids, Cylinders, Cones and Spheres		Page 441-442 #1a,3b,7b,11a Page 447-448 #1a,3-9 Page 459-460 #1b, 2-6	
5	Surface Area Applications		Surface Area Worksheet	
6	Work Period		Extra Practice Worksheet	
7	Optimizing a Square-Based Prism	9.3/ 9.4	Pg 495 #2, 3, 5a, 7 Pg 501 #2, 3, 6, 7	
8	Optimizing a Cylinder	9.5/ 9.6	Pg 508 #1-4 Pg 513 #1, 2, 5, 6	
9	Review		Pages. 472-473 # 1,3,4,6-12 Pages 518 – 519 # 2-4, 6-10 Extra Practice: Pages 470-471 #5-15 Pages 516-517 #6 – 16	
10	**TEST**			