**Edwards ♥ 2017-2018 ♥ A Day Schedule ♥ Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ♥ Block\_\_\_\_\_\_**

**GH Unit 9 & 10 Syllabus: Area, Volume, & Transformations**

**Each day, we will be learning and reviewing material to prepare you for the Geometry SOL Test. There will be no major assessments on the new material so that class time may be spent learning and practicing. The homework will be online assignments and will be graded. You will be given the following grades for your SOL test score:**

**600 = 105, 550-599 = 100, 500-549 = 95, 450-499 = 90, 400-449 = 85, 375 – 399 = 64 (You can retake the SOL and replace this grade, but if you score less than a 375, you will not be able to retake the SOL and your test grade will be a 63 E).**

* **IXL HW= Practice Grades –Your grade will be as follows: 80-89% = 3 points, 90-100% = 4 points. You must turn in LOOSE-LEAF paper with your Name, block, IXL title, and score at the top along with the work for at least 10 problems. Also write your score below!**
* **JLab HW = Minor Assessments – The itemized JLab score sheet must be turned in to get full credit. if you do not like your score, you may redo any JLab any time before May 23 and replace your lower score with the higher one!**

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| **DATE** | **OBJECTIVES** | **GRADED IXL/JLAB ASSIGNMENT** |
| **Thursday,****April 19***Day 00* | **Test on Unit 8**Review area of 2-dimensional figures | ***S.2*** | ***S.3*** | ***S.4*** | ***S.8*** | ***S.12*** |  |
| **Monday,****April 23***Day 1* | **SOL Formula Sheet Overview**Surface Area & Volume of Prisms, Cylinders, Pyramids, Cones, & Spheres **SOL Objective G.11 & G.13 Practice**  | ***T1***  | ***T.2*** | ***T.3*** | ***T.4*** | ***T.5*** | ***T.6*** |
| **Wednesday,****April 25***Day 2* | Surface Area and Volume with Similar Figures**SOL Objective G.14 Practice** | ***T.7***  | ***T.8*** | ***T.9*** |  |  |  |
| **Friday,****April 27***Day 3* | Congruence TransformationsReflections - Translations -  | ***L.1*** | ***L.2*** |  ***L.3***  | ***L.4*** | ***L.5*** | ***L.6*** |
| **Tuesday,****May 1***Day 4* | Rotations, Symmetry, Tessellations, & Dilations | ***L.7*** | ***L8*** | ***L.9*** | ***L.13*** | ***L.14*** | ***L.15*** |
| **Thursday,****May 3***Day 5* | SOL Computer Practice – CONSTRUCTIONS | ***40 Question J-Lab = 40 points*** |
| **Monday,****May 7***Day 6* | **Citywide Geometry Post Test = Minor Assessment****THIS WILL BE GRADED!** | 20 Question JLab on \*RC1: Reasoning, Lines & Transformations**SOL BOOTCAMP AFTER SCHOOL MAY 8 on RC1** |
| **Wednesday,****May 9***Day 7* |  | 20 Question JLab on \*RC2: Triangles**SOL BOOTCAMP AFTER SCHOOL MAY 9 on RC2** |
| **Friday,****May 11***Day 8* |  | 20 Question JLab on\*RC3: Polygons, Circles, and 3-D Figures |
| **Tuesday,****May 15***Day 9* |  | **SOL BOOTCAMP AFTER SCHOOL MAY 15 on RC2** |
| **Thursday,****May 17***Day 10* |  | **SOL BOOTCAMP AFTER SCHOOL MAY 8 on RC3** |
| **Monday,****May 21\****Day 11* | SOL Test Analysis – Last A day class before the SOL Test! | SOL Practice Final Preparation |
| **Wednesday,****May 23\*** | **SOL TEST!** | **Review: Get a good night’s sleep, and eat a good breakfast**! |

***\*Abbreviated Schedule due to testing (50 min class)***

**Unit 9: Area & Volume**

**Learning Targets for Unit 9:**

**Target 1:** I can calculate the area of a triangle, rectangle, rhombus, trapezoid, kite, parallelogram, and apply this knowledge

to find the area of other polygons, including regular polygons.

**Target 2:** I cancalculate the lateral area, surface area, and volume of three-dimensional objects.

**Target 3:** I can calculate the ratio of the areas or volumes of similar figures in terms of the ratio of the sides or perimeters

**Target 4:** I caninvestigate relationships between linear, square, and cubic measures of similar geometric objects and

describe how changes in one measure affect the others.

**ENDURING UNDERSTANDINGS: The space that an object occupies or surrounds defines our physical world.**

1. All two-dimensional objects have area and perimeter.
2. All three-dimensional objects have surface area and volume.
3. A change in one dimension of an object results in predictable changes in area and/or volume.
4. A constant ratio exists between corresponding lengths of sides of similar figures.
5. Proportional reasoning is integral to comparing attribute measures in similar objects.

**ESSENTIAL QUESTIONS: What do perimeter, area and volume have to do with our physical world?**

1. How would an object’s area and volume be affected as its dimensions change?
2. How are real-world problems involving measured attributes of similar objects solved?

**SOL Objectives (2009):**

**G.13 The student will use formulas for surface area and volume of three-dimensional objects to solve real-world problems**

**G.14 The student will use similar geometric objects in two- or three-dimensions to**

a) compare ratios between side lengths, perimeters, areas, and volumes;

b) determine how changes in one or more dimensions of an object affect area and/or volume of the object;

c) determine how changes in area and/or volume of an object affect one or more dimensions of the object; and

d) solve real-world problems about similar geometric objects.

**Unit 10: Transformations**

**Learning Targets for Unit 10**

**Target 1:** I can determine the image of a figure under a dilation, reflection, rotation, or translation, including defining image,

preimage, mapping, and isometry. Identification of transformations in the coordinate plane will be included.

**Target 2:** I can determine if a figure has point, line, or rotational symmetry and identify how many lines of symmetry exist

and the magnitude and order of rotational symmetry.

**ENDURING UNDERSTANDINGS: All objects can change when given specific parameters related to location and size.**

1. A geometric figure can be repositioned without changing its size or shape.
2. A geometric figure can be resized without changing its shape.
3. Using a coordinate plane can assist in analyzing transformations.

**ESSENTIAL QUESTIONS: What parameters are needed to change the location or size of an object?**

1. What does it mean to transform a figure?
2. How are transformations and symmetry related?
3. How are transformations represented in a coordinate plane?

**SOL Objectives (2009):**

**G.3 The student will use pictorial representations, including computer software, constructions, and coordinate methods, to solve problems involving symmetry and transformation. This will include**

a) investigating and using formulas for finding distance, midpoint, and slope;

b) applying slope to verify and determine whether lines are parallel or perpendicular;

c) investigating symmetry and determining whether a figure is symmetric with respect to a line or a point; and

d) determining whether a figure has been translated, reflected, rotated, or dilated, using coordinate methods.