**Edwards Syllabus ☺ 2017-2018 ☺ Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ☺ Block\_\_\_\_\_\_**

**Geometry Honors Unit 6 – Right Triangles**

**HOMEWORK POLICY:** *In order to receive a 3, you must follow the procedure listed on all previous syllabi.*

*This unit requires practicing to ensure success. We suggest that you do the listed IXL assignments in the areas where YOU need more practice. Each IXL you complete will count as a 10 point grade when you turn in your completed work and grade posted at the top of the paper. YOU are in charge of your grades! The homework grade is a reflection of the assigned worksheets, which we feel are important for your overall understanding.*

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| **DATE** | **DAILY LEARNING TARGETS & OBJECTIVES** | | **INDEPENDENT PRACTICE (HOMEWORK)** | | | | **GRADE** | |
| Thursday  Jan. 25  ***Day 00*** | **Test on Unit 5**  Similarity | | Review of Simplifying Radicals Worksheet  ***ALG 1 IXL EE.1, EE.2, EE.3, & EE.4*** | | | |  | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Monday,  January 29  ***Day 01*** | 8-2 Pythagorean Theorem/Converse  ***C DAY – 45 minute classes*** | | 8-2 Pythagorean Theorem Practice Worksheet  ***GEOMETRY IXL Q.1 to Q.3*** | | | |  | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Tuesday,  January 30  ***Day 02*** | 8-1 Geometric Mean | | 8-1 Geometric Mean Worksheet | | | |  | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Thursday,  February 1  ***Day 03*** | 8-3 Special Right Triangles | | 8-3 Special Right Triangles Worksheet  ***GEOMETRY IXL Q.4*** | | | |  | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Monday,  February 5  ***Day 04*** | **Citywide Geometry Mid-Assessment** | | Review 8-2 to 8-3 Homework Worksheet | | | |  | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Wednesday,  February 7  ***Day 05*** | 8-4 Trigonometry | | 8-4 Trigonometry Practice Worksheet  ***GEOMETRY IXL R.1, R.4, R.6 to R.10*** | | | |  | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Friday,  February 9  ***Day 06*** | 8-4 Trigonometry Review | | 8-4 Trigonometric Review Worksheet | | |  | | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Tuesday,  February 13  ***Day 07*** | 8-5 Angles of Elevation & Depression | | 8-5 Angles of Elevation & Depression HW Worksheet | | | | |  |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Thursday,  February 15  ***Day 08*** | Unit 6 Review | | Unit 6 Review Worksheet |  | | | | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |
| Mon/Tue,  Feb. 19/20  ***Day 09*** | **Test on Unit 6**  ***Monday, February 19 – C Day – 45 minute classes*** | | **TOTAL POINTS:** | |  | | | |
| L. Target? | Emoji | What Questions do you still have? | What were your AHA Moments? | | | | | |



**Unit 6: Right Triangles**

**UNIT 6 LEARNING TARGETS: STEM Problems will be embedded throughout.**

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| **Target 1:** | I can find missing lengths of sides formed by an altitude drawn to the hypotenuse of a right  triangle using geometric means. I can express answers in simplified radical form. |
| **Target 2:** | I can use the Pythagorean Theorem and its converse to find sides of right triangles. I can classify triangles as acute, obtuse, or right. |
| **Target 3:** | I can apply properties of special right triangles to solve real-world problems. |
| **Target 4:** | I can find parts of triangles using trigonometry functions sine, cosine, and tangent. |

**UNIT 6 ENDURING UNDERSTANDINGS: The properties of right triangles are used to solve real world situations.**

1. Certain right triangles have properties that allow short cuts to determine side lengths.
2. If certain combinations of side lengths and angle measures of a right triangle are known, then ratios may be used to find other side lengths and angle measures.

**ESSENTIAL QUESTIONS: How are right triangles used to solve real world problems?**

1. How are the sides of right triangles related?
2. Under what conditions are trigonometric ratios used?
3. How are angles of elevation and depression used to find horizontal distance and vertical height?

**SOL Objectives (2009):**

**G.8** The student will solve real-world problems involving right triangles by using the Pythagorean Theorem and its converse, properties of special right triangles, and right triangle trigonometry.

**Virginia Beach Objectives:**

**GH.TR.6.1** The student will use the Pythagorean Theorem and its converse to solve problems involving Science, Technology, Engineering and Mathematics (STEM), and recognize Pythagorean Triples. (SOL G.8)

**GH.TR.6.2** The student will apply properties of special right triangles to problems involving Science, Technology, Engineering and Mathematics (STEM), and find decimal approximations for the solutions. (SOL G.8)

**GH.TR.6.3** The student will solve problems involving Science, Technology, Engineering and

Mathematics (STEM), using sine, cosine and tangent functions of acute angles in right t