



Stockton Unified School District

**EDISON HIGH SCHOOL**  
Home of the Vikings



Essential Outcomes Chart: What is it we expect students to learn?

Grade:	9-12	Subject:	Geometry	Semester	1 & 2	Team Members:		Kevin Pledger		Punny Po	
Standard Description		Example Rigor		Prerequisite Skills		Common Assessment		When Taught?		Extension Standards	
What is the essential standard to be learned? Describe in student-friendly vocabulary.		What does proficient student work look like? Provide an example and/or description.		What prior knowledge, skills, and/or vocabulary is/are needed for a student to master this standard?		What assessment(s) will be used to measure student mastery?		When will this standard be taught?		What will we do when students have learned the essential standard(s)?	
1. Students will be able to apply construction skills to demonstrate an understanding of congruence.		<ul style="list-style-type: none"> <li>▪ Using only a compass and straight edge:</li> <li>▪ Reconstruct an angle and a line segment</li> <li>▪ Draw a line parallel through another line through a given point.</li> <li>▪ Draw an angle bisector.</li> <li>▪ Draw a line perpendicular to a given line</li> </ul>		<b>Vocabulary:</b> <ul style="list-style-type: none"> <li>▪ Point</li> <li>▪ Line</li> <li>▪ Plane</li> <li>▪ Line Segment</li> <li>▪ Ray</li> <li>▪ Parallel</li> <li>▪ Perpendicular</li> <li>▪ Angle Bisector</li> <li>▪ Compass</li> <li>▪ Straight Edge</li> <li>▪ Congruent</li> </ul> <b>Prerequisite Skills:</b> <ul style="list-style-type: none"> <li>▪ Angles</li> <li>▪ Understanding of degree measure</li> </ul>		<ul style="list-style-type: none"> <li>▪ District generated summative assessments</li> <li>▪ Teacher generated formative assessments</li> </ul>		Semester 1		<ul style="list-style-type: none"> <li>▪ Students will explain/present steps for construction.</li> <li>▪ Students will create tutorial videos for constructions.</li> </ul>	

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<p>2. Students will be able to perform transformations (by rotation, reflections, translations, and dilations)</p>	<p>-Recognize and apply each of the transformations -Determine and explain if a transformation is an isometry</p>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>▪ Translation</li> <li>▪ Rotation</li> <li>▪ Reflection</li> </ul>	<ul style="list-style-type: none"> <li>▪ District generated summative assessments</li> <li>▪ Teacher generated formative assessments</li> </ul>	<p>Semester 1</p>	<p>-Students will perform composite transformations</p>
<p>3. Students will be able to prove triangles congruent by theorems.</p>	<ul style="list-style-type: none"> <li>▪ Explain/prove two triangles are congruent by using congruent triangle theorems</li> </ul>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>▪ Side-Side-Side theorem</li> <li>▪ Side-Angle-Side theorem</li> <li>▪ Angle-Angle-Side theorem</li> <li>▪ Angle-Side-Angle theorem</li> <li>▪ Vertical Angles</li> <li>▪ Transversal</li> <li>▪ Alternating Interior Angles</li> <li>▪ Alternating Exterior Angles</li> </ul> <p><b>Prerequisite Skills:</b></p> <ul style="list-style-type: none"> <li>▪ Recognize various polygon</li> </ul>	<ul style="list-style-type: none"> <li>▪ District generated summative assessments</li> <li>▪ Teacher generated formative assessments</li> </ul>	<p>Semester 1</p>	<p>Students will use a two column or paragraph proof to prove two triangles are congruent</p>

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<p>4. Students will be able to apply different similarity theorems</p>	<ul style="list-style-type: none"> <li>Explain/prove two triangles are congruent by using similar triangle theorems.</li> </ul>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>Angle-Angle similarity</li> <li>Side-Side-Side Similarity</li> <li>Side-Angle-Side Similarity</li> </ul> <p><b>Prerequisite Skills:</b></p> <ul style="list-style-type: none"> <li>Ratios &amp; Proportions</li> </ul>	<ul style="list-style-type: none"> <li>District generated summative assessments</li> <li>Teacher generated formative assessments</li> </ul>	<p>Semester 1</p>	<p>Students will use a two column or paragraph proof to prove two triangles are congruent</p>
<p>5. Students will be able to apply trigonometric ratios in right triangles.</p>	<ul style="list-style-type: none"> <li>Recognize Sine, Cosine, and Tangent Ratios within right triangles</li> <li>Apply trig inverses to find unknown angles.</li> </ul>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>Sine Ratio</li> <li>Cosine Ratio</li> <li>Tangent Ratio</li> <li>Theta</li> </ul> <p><b>Prerequisite Skills:</b></p> <ul style="list-style-type: none"> <li>Exponents &amp; square roots</li> <li>Simplify radicals</li> <li>Reading a Trigonometry Table</li> <li>Apply the Pythagorean Theorem</li> <li>Solving proportions</li> </ul>	<ul style="list-style-type: none"> <li>District generated summative assessments</li> <li>-Teacher generated formative assessments</li> </ul>	<p>Semester 1</p>	<p>Students will investigate special right triangles</p>

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<p>6. Students will be able to find arc lengths and areas of sectors of circles.</p>	<ul style="list-style-type: none"> <li>▪ Apply tools and formulas to find lengths and areas of sectors and arcs</li> </ul>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>▪ Radius</li> <li>▪ Diameter</li> <li>▪ Circumference</li> <li>▪ Chord</li> <li>▪ Tangent line</li> <li>▪ Secant line</li> <li>▪ Major Arc</li> <li>▪ Minor Arc</li> </ul> <p><b>Prerequisite Skills:</b></p> <ul style="list-style-type: none"> <li>▪ Finding Circumference of a circle given radius or diameter.</li> <li>▪ Finding Area of a circle given radius or diameter.</li> </ul>	<ul style="list-style-type: none"> <li>▪ District generated summative assessments</li> <li>▪ Teacher generated formative assessments</li> </ul>	<p>Semester 2</p>	<p>Students will explain or synthesis the formula for arc length Students will explain or synthesis the formula for sector Students will calculate the area of a triangle created by two radii and a chord within a circle.</p>
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<p>7. Students will be able to apply algebraic concepts to coordinate geometric situations.</p>	<ul style="list-style-type: none"> <li>▪ Find the midpoint, distance, and endpoint of a line segment as well as perform both internal and external segment division</li> </ul>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>▪ Midpoint</li> <li>▪ Distance</li> <li>▪ Perimeter</li> <li>▪ Midsegment</li> <li>▪ Directed line segment</li> <li>▪ Area</li> </ul> <p><b>Prerequisite Skills:</b></p> <ul style="list-style-type: none"> <li>▪ Graphing in the coordinate plane; performing operations on signed numbers and fractions; presenting solutions in reduced radical form</li> </ul>	<ul style="list-style-type: none"> <li>▪ Teacher generated assessments</li> </ul>	<p>Semester 2</p>	<p>Students will apply skills and solve problems involving length, and they will have the foundation for future study of vectors</p>
<p>8. Students will be able to Identify the relationships between first, second, and third dimensional shapes</p>	<ul style="list-style-type: none"> <li>▪ Draw and apply measurements to determine lengths, areas, and volumes</li> </ul>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>▪ Dimension</li> <li>▪ Planes</li> </ul> <p><b>Prerequisite Skills:</b></p> <ul style="list-style-type: none"> <li>▪ Measurement</li> <li>▪ Area</li> </ul>	<ul style="list-style-type: none"> <li>▪ District generated summative assessments</li> <li>▪ Teacher generated formative assessments</li> </ul>	<p>Semester 2</p>	<p>Students will be able to graph and find area and/or volume of planes or solids</p>

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<p>9. Students will be able to understand and apply conditional probability</p>	<ul style="list-style-type: none"> <li>▪ Evaluate the probability of dependent &amp; independent events</li> <li>▪ Evaluate the probability of mutually exclusive and inclusive events</li> </ul>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>▪ Dependent &amp; Independent Events</li> <li>▪ Mutually Exclusive &amp; Inclusive Events</li> </ul> <p><b>Prerequisite Skills:</b></p> <ul style="list-style-type: none"> <li>▪ Fraction Operations</li> <li>▪ Ratios</li> </ul>	<ul style="list-style-type: none"> <li>▪ District generated summative assessments</li> <li>▪ Teacher generated formative assessments</li> </ul>	<p>Semester 2</p>	<p>Students will evaluate probability given pictorial representation of events</p>
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Subject to Change 2020

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