




Core Geometry Unit One A KUD: Congruence
(revised 9/30)

Name: _____

AT THE END OF THIS UNIT YOU WILL:

<u>KNOW</u> VOCABULARY, NOTATION, PROPERTIES, FORMULAS...	<u>UNDERSTAND</u> THE BIG IDEAS...	<u>BE ABLE TO...</u>
<p>Definition of congruence</p> <p>Definition and types of rigid motions: translation (move a point a specified distance along a line parallel to a specified line), reflection (move the points of an object an equal distance perpendicularly to the specified line of reflection forming a mirror image) rotation (move objects along an arc with a specified center through a specified angle).</p> <p>Notations for labeling and naming angles, segments, lines, rays, and polygons</p> <p>Symbols for indicating congruency, right angles & parallel lines</p> <p>There are valid congruence shortcuts for triangles (SSS, SAS, ASA, AAS, HL)</p> <p>Characteristics of vertical angles, bisectors, alternate interior angles, corresponding angles, midpoints, parallel lines, perpendicular lines, circles</p>	<p>Geometry involves learning a new language that is concise and precise.</p> <p>Discourse about mathematics makes you smarter at math.</p> <p>Rigid motions can demonstrate congruence.</p> <p>Mathematical problems involve more than one subject; geometry problems involve algebra too.</p>	<p>Translate descriptions, relationships and figures using correct symbols, naming, notation and drawings.</p> <p>Demonstrate that two figures are congruent (or not) using rigid motions.</p> <p>Show that two triangles are or are not congruent.</p> <p>Use geometric properties to solve for missing measures.</p> <p>Interact in mathematically productive ways.</p>

Core Geometry Unit One A Learning Scales: Congruence

1	2	3 (TARGET)	4
Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. G.CO.1			
I can define or draw some of these terms, or recognize only some of them. I can't always label and name them correctly yet.	I can translate most simple geometric figures between words, symbols and drawings including labels, names, and markings most of the time.	I can translate geometric figures between words, symbols and drawings including labels, names, and markings.	I can translate complex figures between words, symbols and drawings.
Use rigid transformations G.CO.3, G.CO.4, G.CO.5			
I can describe rotations and reflections that carry a figure onto itself.	I can transform a figure given a rotation, reflection or translation	I can name a sequence of rigid motions that will transform a figure onto another.	I can describe more than one sequence of transformations between two figures.
Show congruence with rigid transformation G.CO.6, G.CO.7, G.CO.8			
I can explain what it means for figures to be congruent.	I can demonstrate that two figures are congruent or not using rigid motions	I can demonstrate that two triangles are congruent (or not) if and only if corresponding pairs of angles and sides are congruent.	Explain how the criteria for triangle congruence follow from the definition of congruence in terms of rigid motions.
Precision			
 Rarely	 Occasionally	Most of the time, I can accurately: <ul style="list-style-type: none"> • calculate values • label diagrams, tables and graphs • identify units in my work • use appropriate notation 	 Always