Module 2 – Congruence

Adjacent angles – are two angles that have a common vertex and a common side

Alternate exterior angles - are defined as two exterior angles on opposite sides of a transversal which lie on different parallel lines

Alternate interior angles - The angles that are formed on opposite sides of the transversal and inside the two lines are alternate interior angles.

Angle – Union of two different rays sharing a common vertex.

Basic Rigid Motion - A basic rigid motion is a rotation, reflection, or translation of the plane. Basic rigid motions are examples of transformations. Given a transformation, the image of a point A is the point the transformation maps the point A to in the plane.

Complementary angles - either of two angles whose sum is 90°

Congruence - A finite composition of basic rigid motions—reflections, rotations, translations—of the plane. Two figures in a plane are congruent if there is a congruence that maps one figure onto the other figure.

Corresponding angles - The angles that occupy the same relative position at each intersection where a straight line crosses two others. If the two lines are parallel, the corresponding angles are equal.

Image of a point /figure - Image refers to the location of a point or figure after it has been transformed.

Line - two-dimensional object that has no endpoints and continues on forever in a plane

Line segment - The part of a line that connects two points.

Parallel lines - Two lines in a plane that do not intersect.

Perimeter – The distance around a polygon.

Perpendicular lines - Two lines are perpendicular if they intersect, and any of the angles formed between the lines are 90-degree angles.

Ray – A part of a line with one endpoint.

Reflection- A reflection is a basic rigid motion that moves a figure across a line.

Rotation - A rotation is a basic rigid motion that moves a figure around a point, d degrees.

Sequence of transformations - A sequence of transformations is more than one transformation. Given transformations G and F, G ° F is called the composition of F and G.

Supplementary angles - Either of two angles whose sum is 180°.

Transformation - A transformation is a rule, to be denoted by F, that assigns each point P of the plane a unique point which is denoted by F(P).

Translation - A translation is a basic rigid motion that moves a figure along a given vector.

Transversal - Given a pair of lines L and M in a plane, a third line T is a transversal if it intersects L at a single point and intersects M at a single but different point.

Vector - A Euclidean *vector* (or directed segment) $\overrightarrow{AB}$ is the line segment AB together with a direction given by connecting an initial point A to a terminal point$B$.)

Vertical angles - Vertical Angles are the angles opposite each other when two lines intersect. They are always equal.