

Brookfield Local Schools
Curriculum Map for Geometry
Unit # 1 Title: Foundations in Geometry

Duration of Unit:

3 weeks

Topic Sequence:

3 weeks

Student Friendly Learning Targets:

I can identify the characteristics and properties of points, lines, and planes.

I can construct congruent segments and midpoints of segments.

I can classify angles by their angle measures.

I can identify special pairs of angles (vertical, adjacent, supplementary, complementary, etc.)

I can apply formulas for perimeter, area, and circumference.

I can apply the Midpoint Formula and Distance Formula.

I can identify reflections, rotations, and translations.

Common Core State Standards Addressed:

G.CO.1: 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.4: Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.

G.CO.5: Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

G.CO.6: Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.

Vocabulary:

Undefined terms, point, line, plane, distance, segment, angle, ray, vertex, intersect, parallel, perpendicular, arc, equidistant, rotation, reflection, translation, preimage, image, center of rotation, bisector, map, transformation, composition, congruent, rigid motion.

Materials and/or Technology Needed:

Smartboard, Holt-McDougal Geometry Textbook, Whiteboards, Protractors, Compasses, Straight Edges

Instructional Notes:

Instruction should integrate with the standards that comprise the Foundations in Geometry Unit.

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Instructional and Assessment Resources:

Formative Assessment Lessons: <http://map.mathshell.org/materials/lessons.php>

Formative Assessment Tasks: <http://map.mathshell.org/materials/tasks.php>

Illustrative Mathematics: <http://www.illustrativemathematics.org/standards/k8>

<http://mathforum.org/>, <http://www.nctm.org/>, <http://plus.maths.org/content/>,

<http://www.pbslearningmedia.org/>, <http://www.mathwords.com/>,

<http://www.math.com/homeworkhelp/Geometry.html>, <http://mathworld.wolfram.com/>,

<http://nlvm.usu.edu/en/nav/vlibrary.html>, <http://www.purplemath.com/>, Holt-McDougal

Geometry Textbook

Assessment Notes:

The Unit Topic will have three multiple choice questions on the proficiency assessment.

Foundational standards should be formatively assessed early in the cycle to identify foundational gaps of students.