Instructional Flow – Unit 1 The Foundations of Geometry

1.1 The Building Blocks of Geometry
- undefined terms
- definitions that result from the undefined terms
- investigations of postulates that result from the undefined terms
- introduction of dynamic geometry software

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1.2 Measuring Length
- formal definitions of length on a number line and congruence of line segments
- investigation of segment addition postulate

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1.3 Measuring Angles
- formal definitions of angle measure and angle congruence
- investigation of angle addition postulate

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1.4 Geometry Using Paper Folding
- construction of parallel and perpendicular lines, segment and angle bisectors using paper folding and geometry software
- conjectures about geometric figures based on investigations

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1.5 Special Points in Triangles
- investigations and applications of points of concurrency in triangles
- construction of inscribed and circumscribed circles in triangles.

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1.6 Motion in Geometry
- formal definitions of rigid transformations of translation, reflection and rotation

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1.7 Motion in the Coordinate Plane
- connection between the geometry of rigid transformations and the algebra of the coordinate plane
- geometric transformations as functions