Unit 1: Rigid Transformations and Congruence

Lesson	Skill	Online Resources	Standard
1	Describe how a figure moves and turns to get from one position to another.	https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-congruence/transformations-intro-basic-geo/v/introduction-to-transformations	8.G.A.1
2	Know the difference between translations, rotations, and reflections. Identify corresponding points before and after a transformation.	https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-congruence/transformations-intro-basic-geo/v/identifying-transformations https://www.ixl.com/math/grade-8/identify-reflections-rotations-and-translations https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-congruence/transformations-intro-basic-geo/e/identify-transformations	8.G.A.1
3	Use grids to carry out transformations of figures. Decide which type of transformations will work to move one figure to another.	https://www.youtube.com/watch?v=r3lN_BADmPQ https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-congruence/basic-geo-transformations-properties/v/mapping-shapes	8.G.A.1
4	Use the terms translation, rotation, and reflections to precisely describe transformations.	https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-congruence/basic-geometry-translations/v/translating-points https://www.ixl.com/math/grade-8/translations-graph-the-image https://www.khanacademy.org/math/cc-eighth-grade-math/geometric-transformations/reflections-8th/v/reflecting-points https://www.ixl.com/math/grade-8/reflections-graph-the-image https://www.khanacademy.org/math/cc-eighth-grade-math/geometric-transformations/rotations-8th/v/rotating-points https://www.ixl.com/math/grade-8/rotations-graph-the-image	8.G.A.1
5	Apply transformations to points on a grid using coordinates.	https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-congruence/basic-geometry-translations/v/translating-points https://www.ixl.com/math/grade-8/translations-find-the-coordinates	8.G.A.3

		https://www.khanacademy.org/math/cc-eighth-grade-math/geometric-transformations/reflections-8th/v/reflecting-points https://www.ixl.com/math/grade-8/reflections-find-the-coordinates https://www.khanacademy.org/math/cc-eighth-grade-math/geometric-transformations/rotations-8th/v/rotating-points https://www.ixl.com/math/grade-8/rotations-find-the-coordinates	
6	Apply transformations to a polygon on a grid using the coordinates of its vertices.	https://www.khanacademy.org/math/cc-eighth-grade-math/geometric-transformations/reflections-8th/v/reflecting-shapes https://www.khanacademy.org/math/geometry/hs-geo-transformations/hs-geo-rotations/v/points-after-rotation https://www.khanacademy.org/math/cc-eighth-grade-math/geometric-transformations/translations-8th/v/drawing-image-of-translation	8.G.A.1 8.G.A.3
7	Describe the effects of a rigid transformation on the lengths and angles in a polygon.	https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-congruence/basic-geo-transformations-properties/v/rigid-transformations-preserved-properties	8.G.A.1a, 8.G.A.1b
8	Describe how to move one part of a figure to another using a rigid transformation.	https://www.youtube.com/watch?v=Myi2SZOK0Cs https://www.youtube.com/watch?v=i37LHLuaJKk	8.G.A.1a, 8.G.A.1b
9	Describe the effects of a rigid transformation on a pair of parallel lines. Find missing unknow angle measurements using vertical angles.	https://www.khanacademy.org/math/basic-geo/basic-geo-angle/vert-comp-supp-angles/v/angles-at-the-intersection-of-two-lines	8.G.A.1a, 8.G.A.1b, 8.G.A.1c
10	Determine missing side lengths or angle measures using properties of rigid transformations.	https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-congruence/basic-geo-transformations-properties/v/finding-measures-using-rigid-transformations https://www.ixl.com/math/grade-8/side-lengths-and-angle-measures-of-congruent-figures	8.G.A.1a, 8.G.A.1b
11	Decide visually whether or not two figures are congruent.	https://www.youtube.com/watch?v=86iU3fypTd4	8.G.A.1, 8.G.A.2
12	Decide using rigid transformations whether or not two figures are congruent.	https://www.khanacademy.org/math/basic-geo/basic-geo-transformations-	8.G.A.2

		congruence/congruent-similar/v/testing-congruence-by-transformations-example	
13	Use distances between points to decide if two figures are congruent.	https://www.mathopenref.com/congruentpolygons.html	8.G.A.1a, 8.G.A.2
14	Identify alternate interior angles and use them to find missing angle measurements.	https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-angles-between-lines/v/angles-formed-by-parallel-lines-and-transversals https://www.ixl.com/math/grade-8/transversal-of-parallel-lines	8.G.A.1, 8.G.A.5
15	Find missing angle measurements in a triangle.	https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/proof-sum-of-measures-of-angles-in-a-triangle-are-180 https://www.ixl.com/math/grade-8/find-missing-angles-in-triangles	8.G.A.2, 8.G.A.5
16	Explain using pictures why the sum of the angles in any triangle is 180 degrees.	https://www.youtube.com/watch?v=y3ALi3G2FO4 https://www.youtube.com/watch?v=BQsO4WxAVb8	8.G.A.5