Common Core Standards - Resource Page

The resources below have been created to assist teachers' understanding and to aid instruction of this standard.

Domain	Standard: 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.
Congruence **Experiment with transformations in the plane**	Questions to Focus Learning What sequence of transformations will carry a figure onto another? Using a variety of materials, we determine a sequence needed to carry a figure onto another. Student Friendly Objectives *Reasoning Targets* I can specify a sequence of transformations, including rotations, reflections, or translations, that will carry a given figure onto another figure. *Product Targets* I can draw a transformed figure given a geometric figure and a rotation, reflection, or translation using graph paper, tracing paper, patty paper, or geometry software. Vocabulary composition of transformations sequence of transformations Teacher Tips Build on student experience with rigid motions from earlier grades. Point out the basis of rigid motions in geometric concepts, e.g., translations move points a specified distance along a line parallel to a specified line; rotations move objects along a circular arc with a specified center through a specified angle. Students should be taught notation specific to compositions of transformations. For example, *S*(*T*(*ABC*)) represents figure *ABC* being transformed by a transformation *T* followed by a transformation *S*. An equivalent notation is *SoT*(*ABC*).

Vertical Progression

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.

G.CO.7 - Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.

G.CO.8 - Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

The above information and more can be accessed for free on the Wiki-Teacher website.
Direct link for this standard: G.CO.5