

## 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.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.
<p><b><u>Congruence</u></b>  <b>Understand congruence in terms of rigid motions</b></p>	<p><u>Questions to Focus Learning</u></p> <p>What is required to show that two triangles are congruent? What can we conclude about two triangles that are congruent?</p> <p>When figures are congruent, all corresponding parts (e.g., angles, segments, and regions) are congruent.</p> <p><u>Student Friendly Objectives</u></p> <p><i>Knowledge Targets</i></p> <p>I can identify corresponding angles by choosing corresponding positions in a congruence statement.            I can identify corresponding sides by choosing pairs of letters that are in corresponding positions in a congruence statement.</p> <p><i>Reasoning Targets</i></p> <p>I can show that two triangles are congruent if the corresponding sides and angles are congruent.            I can show that if two triangles have corresponding sides and angles that are congruent, then the two triangles are congruent.</p> <p><i>Product Targets</i></p> <p>I can develop and write a congruency statement for two figures by matching corresponding parts of the figures.</p> <p><u>Vocabulary</u></p> <p>corresponding parts            CPCTC (corresponding parts of congruent triangles are congruent)            CPFTC (corresponding parts of congruent figures are congruent)</p>

Teacher Tips

Rigid motions are at the foundation of the definition of congruence. Students reason from the basic properties of rigid motions (that they preserve distance and angle), which are assumed without proof. Rigid motions and their assumed properties can be used to establish the usual triangle congruence criteria, which can then be used to prove other theorems.

Vertical Progression

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.7](#)