Unit 3B - Exploring Congruence

8 Days on Block

Unit 3B	*Geometry: Concepts and Connections* Exploring Congruence
Day 1	**Standards:** **G.GSR.3.4** **Explain the criteria for triangle congruence follow from the definition of congruence in terms of rigid motions. Use congruency criteria for triangles to solve problems and to prove relationships in geometric figures.** **LT**: o I can identify corresponding parts to prove congruence and similarity. **SC**: o I can identify corresponding sides and corresponding angles of congruent triangles. o I can correctly name segments, angles and triangles using corresponding parts. o I can write a congruence statement based on corresponding parts of triangles **Lesson/Activity:** Students will explore and identify corresponding parts through a partner/group activity.

Day 2-3	**Standards:** **G.GSR.3.4** **Explain the criteria for triangle congruence follow from the definition of congruence in terms of rigid motions. Use congruency criteria for triangles to solve problems and to prove relationships in geometric figures.** **LT**: o I can prove that two triangles are congruent using congruence theorems. **SC**: o I can use the definition of congruence to prove relationships in triangles. o I can identify congruent and corresponding sides of triangles. o I can use the ASA, SAS, SSS, AAS and HL congruence theorems to prove triangles are congruent. o I understand that three congruences are required to prove two triangles congruent. **Lesson/Activity:** Students will explore congruence of triangles and identify congruent triangles through corresponding parts using triangle congruence theorems.
Days 4-6	**Standards:** **G.GSR.3.4** **Explain the criteria for triangle congruence follow from the definition of congruence in terms of rigid motions. Use congruency criteria for triangles to solve problems and to prove relationships in geometric figures.** **G.GSR.5.4** **Construct formal proofs to justify and apply theorems about triangles.** **LT**: o I can construct a formal two column proof to prove two triangles congruent. **SC**: o I can use the definition of congruence to prove relationships in geometric figures. o I can create a two-column proof. o I can write a series of statements to prove that two triangles are congruent. o I can list, identify and mark given statements on two triangles.

	o I can list, identify and mark congruence statements including vertical angles, reflexive property, alternate interior angles, definition of a bisector, definition of a midpoint and write a correspondence statement that verifies those marks. o I can use the ASA, SAS, SSS, AAS, and HL congruence theorems and postulates to prove triangles congruent o I can write reasons to support statements using definitions, postulates and theorems to prove triangle congruency. **Lesson/Activity:** Students will expand their understanding of the triangle congruence theorems by learning to create proofs using geometric foundations.
Day 7	**Standards:** **G.GSR.3.4** **Explain the criteria for triangle congruence follow from the definition of congruence in terms of rigid motions. Use congruency criteria for triangles to solve problems and to prove relationships in geometric figures.** **G.GSR.5.4** **Construct formal proofs to justify and apply theorems about triangles.** **LT**: o I can prove corresponding sides or angles are congruent using a two column proof and CPCTC **SC**: o I can create a two-column proof. o I can write a series of statements to prove that two triangles are congruent. o I can write reasons to support statements using definitions, postulates and theorems to prove triangle congruency. o I can identify corresponding parts of congruent triangles to make a CPCTC statement. **TEST REVIEW** **Lesson/Activity:** Students will extend their understanding of congruency to include congruency of corresponding parts of congruent figures in their proofs
Day 8	Test Day **Lesson/Activity:** Edulastic - Unit Test - Congruence and Transformations