

## **Unit Guide**

### **Where Is The Congruency In Your World?**

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This unit provides students with a comprehensive understanding of congruence as it relates to, knowing what congruence is, discovering how it is proved, analyzing two (and some three) dimensional shapes to determine if they are congruent, disputing whether or not two or more figures are congruent, providing reasons and supporting evidence as to why or why not, and evaluating the relevance and importance of congruence. The intent is for students to be able to apply what they learn about congruence to real world situations through authentic problem solving. The expectation is for students to identify the appropriate tools necessary and use them appropriately in their proofs of congruence. Students are exposed to several modes of learning to address the various learning styles of students in the classroom. Students will be exposed to explicit vocabulary related to Euclid's Elements including axiom, postulate, proposition, theorem, common notion, and proof. This unit presents the formal definitions of Congruence and Similarity and the propositions that give the necessary conditions for two or more triangles to be congruent including Side-Angle-Side, Side-Side-Side, and Angle-Side-Angle. Through a variety of interactive activities, students will explore the concept of congruence, be able to define it in their own words, and prove that two figures are or are not congruent.