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.11 - Prove theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.
Congruence **Prove geometric theorems**	Questions to Focus Learning What relationships among angles, sides, and other segments in parallelograms are always true? In parallelograms, certain relationships among angles, sides, and other segments are always true. Student Friendly Objectives *Knowledge Targets* I can define parallelogram, rectangle, rhombus and square. I can identify (or distinguish) parallelograms, rectangles, rhombi, and squares. *Reasoning Targets* I can prove the properties of parallelogram. I can prove the cases for which a quadrilateral is a parallelogram, including opposite sides are congruent and parallel, opposite angles are congruent, consecutive angles are supplementary, and diagonals bisect each other. I can prove the cases for which a parallelogram is a rectangle (i.e., four congruent angles and diagonals are congruent). I can prove the cases for which a parallelogram is a rhombus (i.e., four congruent sides, diagonals bisect angles, and diagonals are perpendicular). I can prove the case for which a parallelogram is a square (i.e., four congruent angles and four congruent sides).

	Vocabulary bisect, bisector consecutive angles diagonal equiangular equilateral parallelogram perpendicular quadrilateral rectangle rhombus right angle square supplementary Teacher Tips Encourage multiple ways of writing proofs, such as in narrative paragraphs, using flow diagrams, in two-column format, and using diagrams without words. Students should be encouraged to focus on the validity of the underlying reasoning while exploring a variety of formats for expressing that reasoning. Implementation of G.CO.10 may be extended to include concurrence of perpendicular bisectors and angle bisectors as preparation for G.C.3. Vertical Progression

The above information and more can be accessed for free on the Wiki-Teacher website.
Direct link for this standard: G.CO.11