Instructional Flow — Unit 3A — Transformations and Constructions

I. Prior Knowledge Activation

- activating background knowledge
- pre-assessing student understanding

II. Congruency

- making connections to equality and proportionality
- identifying and justifying congruent relationships in plane figures
- solving problems involving congruent figures

III. Similarity

- making connections to proportionality
- identifying and justifying similar relationships in plane figures
- graphing plane figures similar to a given figure (dilations)
- solving problems involving similar figures

IV. Constructions

- extending knowledge of congruency and similarity to constructions
- making connections to constructions from previous courses
- constructing geometric figures

Instructional Flow — Unit 3B — Measurement of Geometric Figures

I. Angles

- finding measures of interior and exterior angles of triangles
- finding measures of interior and exterior angles of polygons

II. Pythagorean Theorem

- investigating relationships among the length of the sides of a right triangle
- developing an understanding of the Pythagorean Theorem
- using the Pythagorean Theorem to solve problems

III. Area

• applying area computation to authentic situations

IV. Three-Dimensional Geometry

- exploring relationships between two- and three-dimensional figures
- identifying three-dimensional figures
- investigating authentic examples and problems involving threedimensional figures

V. Volume

- examining the relationship between length, area, and volume
- determining volume of three-dimensional figures
- using volume to solve problems

VI. Surface Area

- investigating the relationship between length, area, volume, and surface area
- determining surface area of three-dimensional figures
- using surface area to solve problems