Arizona College & Career Ready Standards Mathematics
High School — Geometry *(Adopted 2010)*

Major and Supporting Clusters by Course

Not all of the content in a given grade is emphasized equally in the standards. Some clusters require greater emphasis than the others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. In addition, an intense focus on the most critical material at each grade allows depth in learning, which is carried out through the Standards for Mathematical Practice.

To say that some things have greater emphasis is not to say that anything in the standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. The following table identifies the Major Clusters, and Supporting Clusters for this grade.

~Achieve the Core

Arizona considers **Major Clusters** as groups of related standards that require greater focus than some of the others due to the depth of the ideas and the time it takes to master these groups of related standards.

Arizona considers **Supporting Clusters** as groups of related standards that support standards within the major clusters in and across grade levels. Supporting clusters also encompass pre-requisite knowledge and extensions of grade level and course content.

Based on the Publishers' Criteria and the critical areas highlighted at each grade level, Arizona suggests instructional time encompass a range of at least 65%-75% for Major Clusters and a range of 25%-35% for Supporting Cluster instruction.

* Indicates modeling standards

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Geometry Course Content Guidance

Course content indicated by: ● major content; ▲ supporting content. Numerals in parentheses designate individual content standards.

Congruence (G-CO)

- ● A. Experiment with transformations in the plane (1, 2, 3, 4, 5)

- ● B. Understand congruence in terms of rigid motions (6, 7, 8)

- ● C. Prove geometric theorems (9, 10, 11)

- ▲ D. Make geometric constructions (12, 13)

Similarity, Right Triangles, and Trigonometry (G-SRT)

- ● A. Understand similarity in terms of similarity transformations (1, 2, 3)

- ● B. Prove theorems using similarity (4, 5)

- ● C. Define trigonometric ratios and solve problems involving right triangles (6, 7, 8)

Circles (G-C)

- ▲ A. Understand and apply theorems about circles (1, 2, 3)

- ▲ B. Find arc lengths and areas of sectors of circles (5)

Expressing Geometric Properties with Equations (G-GPE)

- ▲ A. Translate between the geometric description and the equation of a conic section (1)

- ● B. Use coordinates to prove simple geometric theorems algebraically (4, 5, 6, 7)

Geometric Measurement and Dimensions (G-GMD)

- ▲ A. Explain volume formulas and use them to solve problems (1, 3)

- ● B. Visualize relationships between two-dimensional and three-dimensional objects (4)

Modeling with Geometry (G-MG)

- ● A. Apply geometric concepts in modeling situations (1, 2, 3)