

# Geometry Course Content Framework and Content Emphases

This document lists the 2023 New Jersey Student Learning Standards for Mathematics (NJSLS-M) recommended to comprise the Geometry course. The standards are organized by conceptual category, domain, and cluster.

This document also shows where students and teachers should spend more time, relative to other clusters, in order to meet the expectations of the 2023 New Jersey Student Learning Standards for Mathematics.

Some clusters of standards were written to require greater emphasis than others. This varied emphasis is based on the depth of the mathematical ideas in the cluster, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. More time in these particular areas is also necessary for students to meet the Standards for Mathematical Practice. Therefore, not all content in a given grade is emphasized equally in the standards.

To say that some things have greater emphasis is not to say that anything in the Standards can be neglected or omitted in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade.

Students should spend the majority of their time on the major work of the grade (**M**). Supporting work (**S**) and, where appropriate, additional work (**A**) can engage students in the major work of the grade

## Geometry Conceptual Category

### Congruence (G.CO)

|  |  |  |
| --- | --- | --- |
| **Cluster Letter and Heading** | **Standard Number** | **Content Emphasis** |
| A. Experiment with transformations in the plane  | 1, 2, 3, 4, 5 | S |
| B. Understand congruence in terms of rigid motions | 6, 7, 8 | M |
| C. Prove geometric theorems | 9, 10, 11 | M |
| D. Make geometric constructions | 12, 13 | S |

### Similarity, Right Triangles, and Trigonometry (G.SRT)

|  |  |  |
| --- | --- | --- |
| **Cluster Letter and Heading** | **Standard Number** | **Content Emphasis** |
| A. Understand similarity in terms of similarity transformations | 1, 2, 3 | M |
| B. Prove theorems involving similarity | 4, 5 | M |
| C. Define trigonometric ratios and solve problems involving right triangles | 6, 7, 8 | M |

### Circles (G.C)

|  |  |  |
| --- | --- | --- |
| **Cluster Letter and Heading** | **Standard Number** | **Content Emphasis** |
| A. Understand and apply theorems about circles | 1, 2, 3 | A |
| B. Find arc lengths and areas of sectors of circles | 5 | A |

### Expressing Geometric Properties with Equations (G.GPE)

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| --- | --- | --- |
| **Cluster Letter and Heading** | **Standard Number** | **Content Emphasis** |
| A. Translate between the geometric description and the equation for a conic section | 1 | A |
| B. Use coordinates to prove simple geometric theorems algebraically | 4, 5, 6, 7 | M |

### Geometric Measurement and Dimension (G.GMD)

|  |  |  |
| --- | --- | --- |
| **Cluster Letter and Heading** | **Standard Number** | **Content Emphasis** |
| A. Explain volume formulas and use them to solve problems | 1, 3 | A |
| B. Visualize relationships between two-dimensional and three-dimensional objects | 4 | A |

### Modeling with Geometry (G.MG)

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| --- | --- | --- |
| **Cluster Letter and Heading** | **Standard Number** | **Content Emphasis** |
| A. Apply geometric concepts in modeling situations | 1, 2, 3 | M |