

EIGHTH GRADE Mathematics Course of Study

The eighth grade mathematics course of study consists of five domains of focused study. The five domains are Ratios and Proportional Relationships, The Number System, Expressions and Equations, Geometry, and Statistics and Probability. Please note the abbreviations for each domain. Under each domain are the sub-categories that serve to group related content standards. All eighth grade mathematical content standards are located on the pages that follow.

The Diocesan Standards for Practice are listed below in the column to the right. These Diocesan standards should be incorporated into classroom instruction of the content standards.

Content Standard Domains and Sub-categories

The Number System (NS)

- Know that there are numbers that are not rational, and approximate them by rational numbers.

Expressions and Equations (EE)

- Work with radicals and integer exponents.
- Understand the connections among proportional relationships, lines, and linear equations.
- Analyze and solve linear equations and pairs of simultaneous linear equations.

Functions (F)

- Define, evaluate, and compare functions.
- Use functions to model relationships between quantities.

Geometry (G)

- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.
- Solve real-life and mathematical problems involving volume of cylinders, cones, and spheres.

Statistics and Probability (SP)

- Investigate patterns of association in bivariate data.

Diocesan Standards for Practice

For student:

Students will make connections to Gospel values across content areas.

Student will develop and demonstrate critical thinking, perseverance, and strong work habits.

Students will be reflective, considerate problem solvers.

Students will develop and demonstrate the ability to be moral evaluators and socially responsible global citizens.

For the classroom:

Gospel values will be modeled through effective instruction, cultural sensitivity and an environment of continuous improvement.

Students will be assessed frequently, fairly and with consideration for the whole child.



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