

GRADE 5 MATHEMATICS

The goal of the Montgomery County Public Schools pre-K-12 mathematics program is for all students to achieve mathematical proficiency through mastery of mathematical skills, concepts, and processes. The end result is the ability to think and reason mathematically and use mathematics to solve problems in authentic contexts.

The mathematics curriculum at each grade level is organized into units of instruction. The following statements provide an overview of what students should know and be able to do by the end of each unit in Grade 5. Throughout all units, students will apply concepts and skills to solve problems, communicate and reason mathematically, and make mathematical connections.

Unit 1

- Identify and apply prime and composite numbers less than 100 and rules of divisibility.
- Determine and apply the greatest common factor and least common multiple of numbers.
- Describe the probability of an event using a fraction or a ratio.
- Make predictions based on probability experiments.

Unit 2

- Identify, describe, compare, and classify 2- and 3- dimensional figures using relevant properties.
- Measure angles and identify their parts.
- Describe relationships among the radius, diameter, center, and circumference of a circle.
- Draw geometric figures using tools and technology.

Unit 3

- Compute with whole numbers.
- Translate among fractions, decimals, and percents.
- Compare and order decimals to the thousandths place.
- Solve problems with fractions, decimals, and percents using a variety of strategies.

Unit 4

- Organize data using a variety of graphic displays.
- Analyze and interpret graphs including stem and leaf plots.
- Compute and compare the mean, median, mode, and range of data sets.

Unit 5

- Select appropriate measurement attributes, tools, and units to solve problems.
- Estimate and determine the perimeter and area of a closed figure.
- Develop and use formulas to determine the volume of a rectangular prism.

Unit 6

- Recognize and represent functional relationships using graphs, tables, and rules.
- Compare and order integers on a number line.
- Write and evaluate simple algebraic expressions.
- Use mathematical properties to solve problems.