

By the end of middle school your child will be expected to...

### READING

- ◆ Gain knowledge from materials that make extensive use of elaborate diagrams and data to convey information and illustrate concepts.
- ◆ Evaluate the argument and specific claims in written materials or a speech; distinguish claims that are supported by reasons and evidence from claims that are not.
- ◆ Cite several sources of specific evidence from a piece when offering an oral or written analysis of a book, essay, article or play.
- ◆ Cite the evidence that most strongly supports an analysis of what is explicitly stated and/or implied from a book, article, poem, or play.
- ◆ Analyze where materials on the same topic disagree on matters of fact, interpretation, or point of view.

### SPEAKING/LISTENING

- ◆ Present claims and findings to others orally; sequence ideas logically and accentuate main ideas or themes.
- ◆ Review and paraphrase key ideas and multiple perspectives of a speaker.
- ◆ Evaluate a speaker's key points and reasoning; ask questions and state well supported ideas in discussion.
- ◆ Present claims and findings to others; emphasize main points; make eye contact; speak loudly; pronounce words clearly and use formal English, as appropriate
- ◆ Analyze the purpose of information presented in diverse media and evaluate its social, political, and/or commercial motives.

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### WRITING

- ◆ Write brief reports and arguments that examine a topic, have a clear focus, and include relevant facts, details, and quotations.
- ◆ Conduct short research projects to answer a question; draw on several sources and sharpen the focus based on the research findings.
- ◆ Write the narratives with logical sequence of events.
- ◆ Organize and focus writing; include supporting statements and conclusions with evidence and show that evidence is accurate and reliable.
- ◆ Conduct research in response to a specific question by drawing on evidence from several credible literary or informational sources to support an analysis or reflection.
- ◆ Avoid plagiarism and follow a standard format for citations.
- ◆ Build writing around strong central ideas or points of view; support the ideas with sound reasoning and evidence, precise word choices, smooth transitions, and different sentence structures.
- ◆ Plan and conduct research projects that include several steps and use any credible and documented print and digital sources.

### LANGUAGE

- ◆ Determine the correct meaning of a word based on the context in which it is used.
- ◆ Use common grade-appropriate Greek or Latin affixes and roots as clues to define the meaning of a word.
- ◆ Use strong active verbs to create a clear picture for the reader.
- ◆ Interpret figures of speech and develop a large vocabulary of general academic words.



## A Guide for Families

Middle school is an exciting time filled with new experiences. This guide will assist you in helping your child prepare for the middle school years.

Enclosed are lists of the most important skills for students to gain **by the end of their time in grades 6-8.**



## PRESTON COUNTY SCHOOLS

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*By the end of sixth grade in MATH, your child will be expected to...*

### **RATIOS AND PROPORTIONAL RELATIONSHIPS**

- ◆ Understand ratios and rates, and solve problems involving proportional relationships.

### **THE NUMBER SYSTEM**

- ◆ Use positive and negative numbers together to describe quantities; understand the ordering and absolute values of positive and negative numbers.
- ◆ Apply and extend previous understandings of multiplication and division to divide fractions by fractions and solve related word problems.
- ◆ Compute fluently with multi-digit numbers and find common factors and multiples.
- ◆ Apply and extend previous understanding of numbers to the system of rational numbers.

### **EXPRESSIONS AND EQUATIONS**

- ◆ Apply and extend previous understanding of arithmetic to algebraic expressions.
- ◆ Reason about and solve one-variable equations and inequalities.
- ◆ Represent and analyze quantitative relationships between dependent and independent variables.

### **GEOMETRY**

- ◆ Solve real-world and mathematical problems involving area, surface area and volume.

### **STATISTICS AND PROBABILITY**

- ◆ Create graphical representations of data and reason about statistical distributions.

*By the end of seventh grade MATH, your child will be expected to...*

### **RATIOS AND PROPORTIONAL RELATIONSHIPS**

- ◆ Analyze proportional relationships and use them to solve real-world and mathematical problems.

### **THE NUMBER SYSTEM**

- ◆ Solve percent problems.
- ◆ Apply and extend previous understanding of operations with fractions to add, subtract, multiply and divide rational numbers.
- ◆ Solve word problems that have a combination of whole numbers, fractions, and decimals.

### **EXPRESSIONS AND EQUATIONS**

- ◆ Solve real-life and mathematical problems using numerical and algebraic expressions and equalities.
- ◆ Use properties of operations to generate equivalent expressions.

### **GEOMETRY**

- ◆ Draw, construct and describe geometrical figures and describe the relationships between them.
- ◆ Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

### **STATISTICS AND PROBABILITY**

- ◆ Use random sampling to draw inferences about a population.
- ◆ Draw informal comparative inferences about two populations.
- ◆ Investigate chance process, develop, use, and evaluate probability models.

*By the end of eighth grade MATH, your child will be expected to...*

### **THE NUMBER SYSTEM**

- ◆ Understand that every number has a decimal expansion and use these to compare the size of irrational numbers.
- ◆ Know that there are numbers that are not rational, and approximate them by rational numbers.

### **EXPRESSIONS AND EQUATIONS**

- ◆ Work with radical and integer exponents, positive and negative exponents, square roots and cube root symbols, and scientific notation.
- ◆ Solve linear equations; solve pairs of linear equations; and write equations to solve related word problems.

### **GEOMETRY**

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

### **STATISTICS AND PROBABILITY**

- ◆ Investigate patterns of association in bivariate data.

### **FUNCTIONS**

- ◆ Understand slope, and relating linear equations in two variable to line in the coordinate plane.
- ◆ Understand functions as rules that assign a unique output number to each input number.