

Ave Maria Academy 6th Grade Math

Concepts	Competencies
Ratios, Proportions, and Percent	<p>Represent ratio relationships in various forms.</p> <p>Determine unit rates in context.</p> <p>Interpret and compute quotients of fraction.</p> <p>Solve problems using ratio and rate reasoning.</p> <p>Convert measurement units using equivalent ratios.</p>
Number Theory Concepts and Operations	<p>Solve problems and compute fluently with whole numbers and decimals.</p> <p>Find common multiples and factors including greatest common factor and least common multiple.</p> <p>Use the distributive property to express a sum of two numbers.</p>
Integers and Other Rational Numbers	<p>Use positive and negative numbers to represent quantities in real world contexts. Plot integers and other rational numbers on a number line and a coordinate graph.</p> <p>Interpret the opposite and absolute value of an integer as its distance from zero on a number line.</p> <p>Compare and order rational numbers.</p>
Algebraic Expressions	<p>Write, identify and evaluate numerical expressions involving exponents.</p> <p>Write, read and evaluate algebraic expressions.</p> <p>Apply the properties of operations to generate equivalent expressions.</p>
Algebraic Equations	<p>Solve/interpret one variable equations or inequalities in real world and mathematical problems.</p>
Area, Surface Area, and Volume	<p>Determine the area of triangles, quadrilaterals, irregular polygons and compound polygons.</p> <p>Find volumes of right rectangular prisms with fractional edge lengths.</p> <p>Use nets to find surface area of 3 – dimensional figures.</p>
Data and Distributions	<p>Display data in dot plots, histograms and box-and whisker plots.</p> <p>Determine quantitative measures of center and variability.</p> <p>Choose the appropriate measure of center and variability for a set of data.</p>

Ave Maria Academy 6th Grade ELA

Concepts	Competencies
<p>Main Idea</p> <p>Text Analysis</p> <p>Organization for Writing</p> <p>Writing Style</p> <p>Focus for Writing</p>	<p>Determine two or more main or central ideas of a text and how they are conveyed through particular details.</p> <p>Cite textual evidence to support analysis of what the text says explicitly as well as inferences and/or generalizations drawn from the text.</p> <p>Informational: Organize ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect; use appropriate transitions to clarify the relationships among ideas and concepts; provide a concluding statement or section; include formatting when useful to aiding comprehension. Identify and introduce the topic for the intended audience.</p> <p>Opinion: Introduce and state an opinion on a topic. Organize the claim(s) with clear reasons and evidence clearly; clarify relationships among claim(s) and reasons by using words, phrases, and clauses; provide a concluding statement or section that follows from the argument presented.</p> <p>Narrative: Organize an event sequence that unfolds naturally and logically, using a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another; provide a conclusion that follows from the narrated experiences and events. Engage and orient the reader by establishing a context and introducing a narrator and/or characters.</p> <p>Write with an awareness of the stylistic aspects of composition.</p> <p>Analyze the author's structure through the use of paragraphs, chapters, or sections.</p>

Ave Maria Academy 7th Grade Math: Pre-Algebra

Concepts	Competencies
Ratios, Proportions, and Percent	<p>Compute unit rates associated with ratios of fractions.</p> <p>Recognize and represent proportional relationships between quantities.</p> <p>Use proportional relationships to solve multistep ratio and percent problems.</p>
Rational Numbers	Solve real-world and mathematical problems involving the four operations with rational numbers.
Algebraic Expressions	Apply properties of operations to generate equivalent expressions.
Algebraic Equations	<p>Model and solve real world and mathematical problems using multiple representations such as algebraic, graphical and using tables.</p> <p>Solve multi-step equations or inequalities with one variable.</p> <p>Solve and interpret multi-step real life and mathematical problems posed with positive and negative rational numbers.</p>
Area, Volume, Angles, and Circumference	<p>Use properties of angle types and properties of angles formed when two parallel lines are cut by a transversal line to solve problems.</p> <p>Solve problems involving area and circumference of a circle(s).</p> <p>Solve mathematical problems involving area, volume and surface area of two- and three dimensional objects.</p>
Geometric Figures	<p>Solve problems involving scale drawings of geometric figures.</p> <p>Apply the properties of all types of triangles based on angle and side measure including the triangle inequality theorem.</p>
Data, Distributions, and Random Sampling	<p>Draw inferences about two populations based on random sampling concepts.</p> <p>Determine and approximate relative frequencies and probabilities of events.</p> <p>Draw informal comparative inferences about two populations using measures of center and measures of variability.</p>
Probability	<p>Find probabilities of independent compound events.</p> <p>Predict the approximate relative frequency given the probability.</p> <p>Find the probability of a simple event, including the probability of a simple event not occurring.</p>

Ave Maria Academy 7th Grade ELA

Concepts	Competencies
<p>Main Idea</p> <p>Text Analysis</p> <p>Evaluating Arguments</p> <p>Point of View</p> <p>Vocabulary</p> <p>Literary Elements</p> <p>Theme</p> <p>Analysis Across Texts</p>	<p>Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.</p> <p>Cite textual evidence to justify analysis, synthesis, and explanation on what the text says explicitly, as well as inferences, conclusions, and/or generalizations drawn from the text.</p> <p>Evaluate an author’s argument, reasoning, and specific claims for the soundness of the argument and the relevance of the evidence.</p> <p>Determine an author’s point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.</p> <p>Determine the meaning of words and phrases as they are used in grade level reading and content, including interpretation of figurative, connotative, and technical meanings.</p> <p>Analyze how particular elements of a story or drama interact and how setting shapes the characters or plot.</p> <p>Compare and contrast a fictional portrayal of a time, place or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.</p> <p>Analyze the structure of the text through evaluation of the author’s use of graphics, charts, and the major sections of the text.</p>

Ave Maria Academy 8th Grade Math- Algebra

Concepts	Competencies
Properties of Rational and Irrational Numbers	<p>Apply and extend the properties of exponents to solve the problems with rational exponents.</p> <p>Represent and/or use numbers in equivalent forms (integers, fractions, decimals, percent's, square roots, exponents).</p> <p>Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p>
The Real Number System	<p>Apply and extend the properties of exponents to solve problems with rational exponents.</p> <p>Apply number theory concepts to show relationships between real numbers in problem solving settings.</p> <p>Use exponents, roots, and/or absolute values to solve problems.</p> <p>Use estimation strategies in problem-solving situations.</p>
Equations and Inequalities	<p>Interpret solutions to linear equations and inequalities.</p> <p>Interpret solutions to linear systems of equations and inequalities.</p> <p>Evaluate reasonability of solutions.</p>
Polynomial and Rational Expressions	<p>Simplify/factor expressions involving polynomials.</p> <p>Apply and extend previous understandings of arithmetic to algebraic expressions.</p> <p>Use polynomial identities.</p> <p>Perform arithmetic operations on polynomials.</p>
Equations and Inequalities	<p>Write, solve, and/or graph linear equations and inequalities using various methods.</p> <p>Write, solve, and/or graph systems of linear equations and inequalities using various methods.</p> <p>Use and/or identify algebraic properties.</p>
Patterns, Relations and Functions	<p>Define, evaluate, and compare functions.</p> <p>Use the concept and notation of function to interpret and apply them in terms of their context.</p> <p>Create a function and/or sequence that model relationships between two quantities. Create and/or analyze functions using multiple representations (graph, table, and equation).</p> <p>Create new functions from existing functions (transformations of graphs).</p> <p>Construct and compare linear, quadratic, and exponential models and solve problems.</p>

Categorical and Quantitative Data	<p>Analyze a set of data for a pattern, and represent the pattern with an algebraic rule and/or a graph.</p> <p>Summarize, represent, and interpret single-variable data and two-variable data.</p> <p>Use measures of dispersion to describe a set of data (range, quartiles, interquartile range).</p> <p>Analyze and/or interpret data displays and/or use them to make predictions (circle graph, line graph, bar graph, box-and-whisker plot, stem-and-leaf plot, scatter plot).</p> <p>Make inferences and justify conclusions based on sample surveys, experiments, and observational studies.</p>
Probability	<p>Calculate and/or make predictions based upon measures of central tendency.</p> <p>Apply probability to practical situations, including compound events.</p> <p>Recognize and evaluate random processes underlying statistical experiments.</p> <p>Apply the rules of probability to compute probabilities of compound events in a uniform probability model.</p>

Ave Maria Academy 8th Grade ELA

Concepts	Competencies
Main Idea	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
Text Analysis	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text.
Text Structure	Analyze the structure of the text through evaluation of the author's use of specific sentences and paragraphs to develop and refine a concept.
Vocabulary	Evaluate the advantages and disadvantages of using different mediums (e.g. print or digital text, video, multimedia) present in a particular topic or idea.
Point of View	Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.
Content for Writing	Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by directors or actors.
Diverse Media	Analyze the purpose of information presented in diverse media formats (e.g. visually, quantitatively, orally) and evaluate its motives (e.g. social, commercial, political).
Sources of Information	Analyze the development of the meaning through the overall structure of multiple texts.
Evaluating Information	Analyze how a modern work of fiction draws on themes, patterns of events, or character types from traditional works, including describing how the material is rendered new.
Organization for Writing	Analyze the influence of the words and phrases in a text including figurative, connotative, and technical meanings, and how they shape meaning and tone.
Writing Style	<p>Informational: Organize ideas, concepts, and information into broader categories; use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts; provide a concluding statement or section; include formatting when useful to aiding comprehension.</p> <p>Argumentative: Organize the claim(s) with clear reasons and evidence clearly; clarify relationships among claim(s), counterclaims, reasons, and evidence by using words, phrases, and clauses to create cohesion; provide a concluding statement or section that follows from and supports the argument presented.</p> <p>Narrative: Organize an event sequence that unfolds naturally and logically using a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another and show the relationships among experiences and events; provide a conclusion that follows from and reflects on the narrated experiences or events.</p>
Conducting Research	Write with an awareness of the stylistic aspects of composition.