

Pre-Algebra

State Standard Number	State Standard Area/Description	Unit Name	Course Topic Description
A	A student should understand mathematical facts, concepts, principles, and theories.		
A.1	understand and use numeration, including		
A.1.a	numbers, number systems, counting numbers, whole numbers, integers, fractions, decimals, and percents; and	Basics Fractions	Integer Math Fraction Basics
A.1.b	irrationals and complex numbers;		
A.2	select and use appropriate systems, units, and tools of measurement, including estimation;		
A.3	perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools for computation or estimation including mental arithmetic, paper and pencil, a calculator, and a computer;	Covered throughout course	Covered throughout course
A.4	represent, analyze, and use mathematical patterns, relations, and functions using methods such as tables, equations, and graphs;	Equations	Linear Equations Graphing Linear Equations
A.5	construct, draw, measure, transform, compare, visualize, classify, and analyze the relationships among geometric figures; and	Geometric Concepts and Proportions	Geometric Concepts
A.6	collect, organize, analyze, interpret, represent, and formulate questions about data and make reasonable and useful predictions about the certainty, uncertainty, or impossibility of an event.	Probability and Data Analysis	Making Predictions from Data

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B	A student should understand and be able to select and use a variety of problem-solving strategies.		
B.1	use computational methods and appropriate technology as problem-solving tools;	Covered throughout course	Covered throughout course
B.2	use problem solving to investigate and understand mathematical content;	Word Problems	Strategies
B.3	formulate mathematical problems that arise from everyday situations;	Geometric Concepts and Proportions	Proportions
B.4	develop and apply strategies to solve a variety of problems;	Word Problems	Strategies
B.5	check the results against mathematical rules;	Word Problems	Strategies
B.6	use common sense to help interpret results;	Word Problems	Strategies

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B.7	apply what was learned to new situations; and	Covered throughout course	Covered throughout course
B.8	use mathematics with confidence.	Covered throughout course	Covered throughout course
C	A student should understand and be able to form and use appropriate methods to define and explain mathematical relationships.		
C.1	express and represent mathematical ideas using oral and written presentations, physical materials, pictures, graphs, charts, and algebraic expressions;	Covered throughout course	Covered throughout course
C.2	relate mathematical terms to everyday language;	Word Problems	Translating English to Math
C.3	develop, test, and defend mathematical hypotheses; and		
C.4	clarify mathematical ideas through discussion with others.	Covered throughout course	Covered throughout course
D	A student should be able to use logic and reason to solve mathematical problems.		

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D.1	analyze situations;	Word Problems	Strategies
D.2	draw logical conclusions;	Word Problems	Strategies
D.3	use models, known facts, and relationships to explain the student's reasoning;	Word Problems	Strategies
D.4	use deductive reasoning to verify conclusions, judge the validity of arguments, and construct valid arguments; and		
D.5	use inductive reasoning to recognize patterns and form mathematical propositions.		
E	A student should be able to apply mathematical concepts and processes to situations within and outside of school.		
E.1	explore problems and describe results using graphical, numerical, physical, algebraic, and verbal mathematical models or representations;	Probability and Data Analysis	Covered throughout unit
E.2	use mathematics in daily life; and	Covered throughout course	Covered throughout course



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E.3	use mathematics in other curriculum areas.		
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