

Math at Adda Clevenger School

Kindergarten to Third Grade: Developing Ideas about Operations

Grade Level / Text: ¹	Kindergarten Math Ideas	1 st Grade Math Ideas	1 st Grade Math Ideas	2 nd Grade Math Ideas	2 nd Grade Math Ideas	3 rd Grade Math Ideas	3 rd Grade Math Ideas	4th Grade Math Ideas
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Area of Study	Kindergarten	First Grade	Second Grade	Third Grade
Numbers and Number Operations	<ul style="list-style-type: none"> - master +/- facts to 30 - place value to 100 - number relationships 	<ul style="list-style-type: none"> - master +/- facts to 100 - 2- 3-digit + / - - place value to 1000 - intro arrays for X and / - intro decimals (\$) - intro fractions 	<ul style="list-style-type: none"> - 4-digit + / - (regrouping) - master times tables to 12 by year-end - know which operations are opposites - decimals + / - with \$ 	<ul style="list-style-type: none"> - master re-grouping with whole numbers and decimals - division with remainders - simple fraction + / - - intro equivalent fractions
Geometry	<ul style="list-style-type: none"> - name shapes and solids 	<ul style="list-style-type: none"> - classify shapes and solids by characteristics 	<ul style="list-style-type: none"> - perimeter and area - intro volume - intro types of angles - coordinate grid, quad I 	<ul style="list-style-type: none"> - master perimeter and area - measuring angles - coordinate grid, quad I
Data Analysis	<ul style="list-style-type: none"> - record data counts with tally marks 	<ul style="list-style-type: none"> - collect, organize and analyze data 	<ul style="list-style-type: none"> - range, median, mode - create graphs 	<ul style="list-style-type: none"> - range, median, mode - create and analyze graphs
Algebra / Algebraic Thinking	<ul style="list-style-type: none"> - recognizing patterns 	<ul style="list-style-type: none"> - recognizing patterns and predict next event 	<ul style="list-style-type: none"> - simple visual equations - T-charts 	<ul style="list-style-type: none"> - create T-charts to model relationships
Measurement	<ul style="list-style-type: none"> - time to the hour - intro ruler 	<ul style="list-style-type: none"> - time to the half-hour - measure to nearest inch 	<ul style="list-style-type: none"> - time to the quarter hour - 	<ul style="list-style-type: none"> - time to the minute - intro protractor

¹ Grade Level refers to the correlation of California Common Core State Standards that are somewhat correlated to the math curriculum at Adda Clevenger School. Text refers to the textbook used as a primary resource in the course.

Math at Adda Clevenger School

Fourth Grade: Applying Ideas about Operations, Introduce Critical Thinking, Start Journaling

Fifth Grade: Master Arithmetic Skills, Introduction to the Structure of our Mathematical System

Grade Level / Text:²

4 th Grade Math Ideas	5 th Grade Math Ideas	<u>Middle School Math</u> 6th Grade Math Ideas
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Area of Study	Fourth Grade	Fifth Grade
Numbers and Number Operations	<ul style="list-style-type: none"> - 2-digit x 2-digit multiplication; long division, single digit divisor - Intro Decimal operations to the hundredths - Master fraction operations (+, -, x, intro /) - Master operations with powers of ten - Intro exponential notation 	<ul style="list-style-type: none"> - Master decimal operations to the thousandths - Long division, multi-digit divisors - Intro rational number system including integers - Scientific notation and negative exponents - Intro ratio and rate - Integrate decimals, fractions and percent
Geometry	<ul style="list-style-type: none"> - Classify angles by sides and angle measure - Intro parallel and perpendicular - Symmetry, similar and congruent shapes - Problem-solving with volume - Coordinate grid, quadrant 1 - Intro formulas for perimeter, area, volume 	<ul style="list-style-type: none"> - 4-quadrant coordinate grid - Intro surface area / nets of solid figures - Master formulas to solve perimeter, area, volume problems
Data Analysis	<ul style="list-style-type: none"> - Mean, median, mode and graphing using bar and line graphs – interpret solutions 	<ul style="list-style-type: none"> - Read and interpret graphs - Intro probability and calculating outcomes
Algebra / Algebraic Thinking	<ul style="list-style-type: none"> - Recognize, extend, and predict patterns - Use variables to model relationships - Graph linear relationships in the coordinate plane 	<ul style="list-style-type: none"> - Write, interpret and use expressions and equations - Graph linear equations in the coordinate plane - Intro transformations in the coordinate plane
Measurement	<ul style="list-style-type: none"> - Master metric system 	

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Math at Adda Clevenger School

Sixth Grade: Apply Relationships to Find a Missing Variable; Build Core Pre-Algebra Skills
 Seventh Grade: Complete Building Core Pre-Algebra Skills -- Eighth Grade: Apply Abstract Thinking

Grade Level / Text:³

Pre-Algebra I (Chapters 1-7)
 7th Grade Math Ideas

Pre-Algebra II (Chapters 8-12)
 8th Grade Math Ideas

Algebra I
 9th Grade Math Ideas

Area of Study	Sixth Grade	Seventh Grade	Eighth Grade
Numbers and Number Operations	<ul style="list-style-type: none"> - Roots and Radicals - Ratios and proportions applied to scale models and across different systems - Master fractions/decimals/ and percent as 3 similar ways. 	<ul style="list-style-type: none"> - Operations with square and cube roots; graph irrational numbers - Operations with scientific notation - Intro TI-84 	<ul style="list-style-type: none"> - Master rules of exponents, including fractional exponents - Define and analyze polynomial properties - Continue use of TI-84 as an analytical tool.
Geometry	<ul style="list-style-type: none"> - Solve similar shape problems using proportions - Area of complex, combined shapes - Surface area and volume of rectangular prisms 	<ul style="list-style-type: none"> - Pythagorean Theorem and special right triangles - Intro trigonometric ratios - Surface area and volume of cones and pyramids - Transformations 	<ul style="list-style-type: none"> - Graphing quadratic functions - Graphing rational functions
Data Analysis	<ul style="list-style-type: none"> - Calculating probabilities and odds for and against - Scatter plots and interpreting data 	<ul style="list-style-type: none"> - Graph data in multiple ways - Calculate the probability of events - Permutations and combinations 	<ul style="list-style-type: none"> - Interpret quadratic functions and apply to solve problems. - Use quadratic trinomials to model parabolic movement. - Interpret zeros of a function
Algebra / Algebraic Thinking	<ul style="list-style-type: none"> - Solving multi-step equations using Key Properties - Solving and graphing inequalities 	<ul style="list-style-type: none"> - Solving and interpreting linear equations. - Interpreting slope as a rate of growth, decline, and speed 	<ul style="list-style-type: none"> - Solving systems of equations - Operations with polynomials - Factoring polynomials - Master Linear Functions - Solving the Quadratic Equation

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