



Addlestone Hebrew Academy Math Standards

Kindergarten

Number Sense

- Understand the relationship between numbers and quantities.
- Understand and describe simple additions and subtractions.
- Use estimation strategies in computation and problem solving for one- and two-digit numbers.

Measurement and Geometry

- Understand the concept of time and units to measure it.
- Understand that objectives have properties such as length, weight, capacity.

Statistics, Data Analysis, and Probability

- Collect information about objects and events in their environment.

Algebra and Functions

- Sort and classify objects.

Mathematical Reasoning

- Solve problems in reasonable ways and justify the reasoning.

First Grade

Number Sense

- Understand and use numbers up to 100.
- Demonstrate the meaning of addition and subtraction to solve problems.
- Use estimation strategies in computation and problem solving that involve numbers that use ones, tens, and hundreds places.

Measurement and Geometry

- Use direct comparison and nonstandard unit to describe the measurement of objects.

Statistics, Data Analysis, and Probability

- Organize, represent, and compare data by category on simple graphs and charts.

Algebra and Functions

- Use number sentences with operational symbols and expression to solve problems.

Mathematical Reasoning

- Solve problems and justify the reasoning.

Second Grade

Number Sense

- Understand the relationship between numbers, quantities, and place value in whole numbers to 1,000.
- Estimate, calculate, and solve problems involving addition and subtraction of two- and three-digit numbers.
- Model and solve simple problems involving multiplication and division.
- Understand that fractions and decimals may refer to parts of a set and parts of a whole.
- Model and solve problems by representing, adding and subtracting amounts of money.

Measurement and Geometry

- Understand that measurement is accomplished by identifying a unit of measure, iterating that unit, and comparing it to the item to be measured.

Statistics, Data Analysis, and Probability

- Collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations.

Algebra and Functions

- Model, represent, and interpret number relationships to create and solve problems involving addition and subtraction.

Mathematical Reasoning

- Solve problems and justify the reasoning.



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Algebra and Functions

- Model, represent, and interpret number relationships to create and solve problems involving addition and subtraction.

Mathematical Reasoning

- Solve problems and justify the reasoning.

Third Grade

Number Sense

- Understand the place value of whole numbers.
- Calculate and solve problems involving addition, subtraction, multiplication, and division.
- Understand the relationship between whole numbers, simple fractions, and decimals.

Measurement and Geometry

- Choose and use appropriate units and measurement tools to quantify the properties of objects.

Statistics, Data Analysis, and Probability

- Conduct simple probability experiments by determining the number of possible outcomes and make simple predictions.

Algebra and Functions

- Select appropriate symbols, operations, and properties to represent, describe, simplify, and solve simple number relationships.

Mathematical Reasoning

- Use strategies, skills, and concepts in finding solutions.



Addlestone Hebrew Academy Math Standards

Second Grade

Number Sense

- Understand the relationship between numbers, quantities, and place value in whole numbers to 1,000.
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Algebra and Functions

- Select appropriate symbols, operations, and properties to represent, describe, simplify, and solve simple number relationships.

Mathematical Reasoning

- Use strategies, skills, and concepts in finding solutions.

Fourth Grade

Number Sense

- Understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions.
 - Use the concept of negative numbers.
- Solve problems involving addition, subtraction, multiplication, and division of whole numbers and understand the relationship among the operations.

Measurement and Geometry

- Understand perimeter and area.

Statistics, Data Analysis, and Probability

- Organize, represent, and interpret numerical and categorical data and clearly communicate the findings.

Algebra and Functions

- Use and interpret variables, mathematical symbols, and properties to write and simplify expressions and sentences.

Mathematical Reasoning

- Use strategies, skills, and concepts in finding solutions.



Addlestone Hebrew Academy Math Standards

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- Understand the place value of whole numbers.
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- Understand the relationship between whole numbers, simple fractions, and decimals.

Measurement and Geometry

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- Conduct simple probability experiments by determining the number of possible outcomes and make simple predictions.

Algebra and Functions

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- Use strategies, skills, and concepts in finding solutions.

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- Understand perimeter and area.

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- Organize, represent, and interpret numerical and categorical data and clearly communicate the findings.

Algebra and Functions

- Use and interpret variables, mathematical symbols, and properties to write and simplify expressions and sentences.

Mathematical Reasoning

- Use strategies, skills, and concepts in finding solutions.

Fifth Grade

Number Sense

- Compare with very large and very small numbers, positive integers, decimals, and fractions and understand the relationship between decimals, fractions, and percents.
- Perform calculations and solve problems involving additions, subtraction, and simple multiplication and division of fractions and decimals.

Measurement and Geometry

- Understand and compute the volumes and areas of simple objects.

Statistics, Data Analysis, and Probability

- Display, analyze, compare, and interpret different data sets, including data sets of different sizes.

Algebra and Functions

- Use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results.

Mathematical Reasoning

- Use strategies, skills, and concepts in finding solutions.



Addlestone Hebrew Academy Math Standards

Fourth Grade

Number Sense

- Understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions.
 - Use the concept of negative numbers.
 - Solve problems involving addition, subtraction, multiplication, and division of whole numbers and understand the relationship among the operations.

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- Understand perimeter and area.

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- Compare with very large and very small numbers, positive integers, decimals, and fractions and understand the relationship between decimals, fractions, and percents.
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- Understand and compute the volumes and areas of simple objects.

Statistics, Data Analysis, and Probability

- Display, analyze, compare, and interpret different data sets, including data sets of different sizes.

Algebra and Functions

- Use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results.

Mathematical Reasoning

- Use strategies, skills, and concepts in finding solutions.

Sixth Grade

Mathematical Processes

- Understand and utilize the mathematical processes of problem solving, reasoning, and proof, communication, connections, and representation.

Number and Operations

- Understand the concepts of whole number percentages, integers, and ratio and rate.
- Understand addition and subtraction of fractions.
- Use accurate, efficient, and generalized methods of multiplying and dividing fractions and decimals.
 - Use exponential notation to represent whole numbers.

Geometry

- Demonstrate an understanding of shape, location, and movement within a coordinate system.
 - Understand similarity, complementary, and supplementary angles.
- Understand the relationship between line and rotational symmetry.

Algebra

- Demonstrate an understanding of writing, interpreting, and using mathematical expressions, equations, and inequalities.

Measurement

- Understand surface area.
- Identify perimeter and area of irregular shapes.
- Understand the relationship among circumference, diameter, and radius of a circle.
 - Use proportions to determine unit rates.
 - Use scale to determine distance.

Data Analysis and Probability

- Understand the relationships within one population or sample.



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Measurement and Geometry

- Understand and compute the volumes and areas of simple objects.

Statistics, Data Analysis, and Probability

- Display, analyze, compare, and interpret different data sets, including data sets of different sizes.

Algebra and Functions

- Use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results.

Mathematical Reasoning

- Use strategies, skills, and concepts in finding solutions.

Sixth Grade

Mathematical Processes

- Understand and utilize the mathematical processes of problem solving, reasoning, and proof, communication, connections, and representation.

Number and Operations

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Seventh Grade

Mathematical Processes

- Understand and utilize the mathematical processes of problem solving, reasoning, and proof, communication, connections, and representation.

Number and Operations

- Understand the representation of rational numbers, percentages, and square roots of perfect squares.
- Apply the knowledge of ratios, rate, and proportions to solve problems.
- Use accurate, efficient, and generalized methods for operations with integers.
 - Multiply and divide fractions and decimals.
 - Understand the inverse relationship between squaring and finding the square roots of perfect

Geometry

- Understand proportional reasoning, tessellations, the use of geometric properties to make deductive arguments.
- Identify the results of the intersection of geometric shapes in a plane.
- Identify the relationships among angles formed when a transversal intersects two parallel lines.

Algebra

- Understand proportional relationships.

Measurement

- Understand how to use ratios and proportions to solve problems involving scale factors and ratios.
- Use one-step unit analysis to convert between and within the U.S. Customary System and metric system.

Data Analysis and Probability

- Understand the relationships between two populations and samples.



Addlestone Hebrew Academy Math Standards

Sixth Grade

Mathematical Processes

- Understand and utilize the mathematical processes of problem solving, reasoning, and proof, communication, connections, and representation.

Number and Operations

- Understand the concepts of whole number percentages, integers, and ratio and rate.
- Understand addition and subtraction of fractions.
- Use accurate, efficient, and generalized methods of multiplying and dividing fractions and decimals.
 - Use exponential notation to represent whole numbers.

Geometry

- Demonstrate an understanding of shape, location, and movement within a coordinate system.
 - Understand similarity, complementary, and supplementary angles.
- Understand the relationship between line and rotational symmetry.

Algebra

- Demonstrate an understanding of writing, interpreting, and using mathematical expressions, equations, and inequalities.

Measurement

- Understand surface area.
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- Understand the relationship among circumference, diameter, and radius of a circle.
 - Use proportions to determine unit rates.
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Data Analysis and Probability

- Understand the relationships within one population or sample.

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- Understand proportional relationships.

Measurement

- Understand how to use ratios and proportions to solve problems involving scale factors and ratios.
- Use one-step unit analysis to convert between and within the U.S. Customary System and metric system.

Data Analysis and Probability

- Understand the relationships between two populations and samples.

Eighth Grade

Mathematical Processes

- Understand and utilize the mathematical processes of problem solving, reasoning, and proof, communication, connections, and representation.

Number and Operations

- Demonstrate an understanding of operations of integers, effects of multiplying and dividing with rational numbers.
- Understand comparative magnitude of rational and irrational numbers.
- Identify the approximation of cube and square roots.
 - Apply proportional reasoning.

Geometry

- Understanding and use of the Pythagorean theorem.
 - Use ordered pairs, equations, intercepts, and intersections to locate points and lines in a coordinate plane.
- Understand the effect of a dilation in a coordinate plane.

Algebra

- Understand equations, inequalities, and linear functions.

Measurement

- Understand the proportionality of similar figures.
- Identify the accuracy and precision in measurement.
- Use formulas to determine circumference, perimeter, area, and volume.
 - Use conversions within and between the U.S. Customary System and the metric system.

Data Analysis and Probability

- Understand the relationships between two variables within one population or sample.