

PRE-KINDERGARTEN MATH SCOPE AND SEQUENCE

EARLY FIRST QUARTER

Patterns, Functions and Algebra

- A. Sort, classify and order objects by size, number and other properties, and describe the attributes used.

Data Analysis and Probability

- A. Pose questions and gathers data about everyday situations and familiar objects.

Mathematical Processes

- A. Use a variety of strategies to understand problem situations; e.g., discussing with peers, stating problems in own words, modeling problems with diagrams or physical materials, identifying a pattern.
- B. Identify and restate in own words the question or problem and the information needed to solve the problem.
- C. Generate alternative strategies to solve problems.
- D. Evaluate the reasonableness of predictions, estimations and solutions.
- E. Explain to others how a problem was solved.
- F. Draw pictures and use physical models to represent problem situations and solutions.
- G. Use invented and conventional symbols and common language to describe a problem situation and solution.
- H. Recognize the mathematical meaning of common words and phrases, and relate everyday language to mathematical language and symbols.
- I. Communicate mathematical thinking by using everyday language and appropriate mathematical language.

LATE FIRST QUARTER

Number, Number Sense and Operations

- B. Recognize, classify, compare and order whole numbers.

Measurement

- A. Explain the need for standard units of measure.

Geometry and Spatial Sense

- C. Sort and compare two-dimensional figures and three-dimensional objects according to their characteristics and properties.

Mathematical Processes

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EARLY SECOND QUARTER

Number, Number Sense and Operations

- B. Recognize, classify, compare and order whole numbers.

Geometry and Spatial Sense

- B. Describe solid objects: cube, rectangular prism, sphere, cylinder, cone and pyramid, and identify them in the environment.

Measurement

- B. Select appropriate units for length, weight, volume (capacity) and time, using:
 - objects; i.e., non-standard units;
 - U.S. customary units: inch, foot, yard, ounce, pound, cup, quart, gallon, minute, hour, day, week and year;
 - metric units: centimeter, meter, gram and liter.

Data Analysis and Probability

- B. Sort and classify objects by attributes, and organize data into categories in a simple table or chart.

Mathematical Processes

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- B. Identify and restate in own words the question or problem and the information needed to solve the problem.
- C. Generate alternative strategies to solve problems.
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LATE SECOND QUARTER

Geometry and Spatial Sense

- F. Describe location, using comparative (before, after), directional (above, below), and positional (first, last) words.

Patterns, Functions and Algebra

- B. Extend sequences of sounds and shapes or simple number patterns, and create and record similar patterns.

Data Analysis and Probability

- C. Represent data using objects, picture graphs and bar graphs.

Mathematical Processes

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PRE-KINDERGARTEN MATH SCOPE AND SEQUENCE

EARLY THIRD QUARTER

Number, Number Sense and Operations

- D. Determine the value of a collection of coins and dollar bills.
- G. Model, represent and explain addition as combining sets and counting on.

Patterns, Functions and Algebra

- C. Create and extend patterns, and describe the rule in words.

Mathematical Processes

- A. Use a variety of strategies to understand problem situations; e.g., discussing with peers, stating problems in own words, modeling problems with diagrams or physical materials, identifying a pattern.
- B. Identify and restate in own words the question or problem and the information needed to solve the problem.
- C. Generate alternative strategies to solve problems.
- D. Evaluate the reasonableness of predictions, estimations and solutions.
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LATE THIRD QUARTER

Number, Number Sense and Operations

- H. Model, represent and explain subtraction as comparison, take-away and part-to-whole.

Measurement

- C. Develop common referents for units of measure for length, weight, volume (capacity) and time to make comparisons and estimates.

Mathematical Processes

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EARLY FOURTH QUARTER

Number, Number Sense and Operations

- I. Model, represent and explain multiplication as repeated addition, rectangular arrays and skip counting.

Patterns, Functions and Algebra

- D. Model problem situations, using objects, pictures, numbers and other symbols.

Mathematical Processes

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- B. Identify and restate in own words the question or problem and the information needed to solve the problem.
- C. Generate alternative strategies to solve problems.
- D. Evaluate the reasonableness of predictions, estimations and solutions.
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LATE FOURTH QUARTER

Number, Number Sense and Operations

- J. Model, represent and explain division as sharing equally, repeated subtraction and rectangular arrays.

Mathematical Processes

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