

KINDERGARTEN MATH SCOPE AND SEQUENCE

EARLY FIRST QUARTER

Number, Number Sense and Operations

- A. Use place value concepts to represent whole numbers using numerals, words and physical models.
- B. Recognize, classify, compare and order whole numbers.

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.
- C. Create and extend patterns, and describe the rule in words.
- D. Model problem situations, using objects, pictures, numbers and other symbols.
- G. Describe and compare qualitative and quantitative changes.

Data Analysis and Probability

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

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

- A. Use place value concepts to represent whole numbers using numerals, words and physical models.
- B. Recognize, classify, compare and order whole numbers.
- F. Count, using numerals and ordinal numbers.

Patterns, Functions and Algebra

- C. Create and extend patterns, and describe the rule in words.
- D. Model problem situations, using objects, pictures, numbers and other symbols.
- G. Describe and compare qualitative and quantitative changes.

Data Analysis and Probability

- A. Pose questions and gathers data about everyday situations and familiar objects.
- C. Represent data using objects, picture graphs and bar graphs.

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.
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- 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.

EARLY SECOND QUARTER

Number, Number Sense and Operations

- A. Use place value concepts to represent whole numbers using numerals, words and physical models.
- B. Recognize, classify, compare and order whole numbers.
- F. Count, using numerals and ordinal numbers.

Geometry and Spatial Sense

- A. Describe and create plane figures: circle, rectangle, square, triangle, hexagon, trapezoid, parallelogram and rhombus, and identify them in the environment.

Patterns, Functions and Algebra

- A. Sort, classify and order objects by size, number and other properties, and describe the attributes used.
- D. Model problem situations, using objects, pictures, numbers and other symbols.
- G. Describe and compare qualitative and quantitative changes.

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.
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- I. Communicate mathematical thinking by using everyday language and appropriate mathematical language.

LATE SECOND QUARTER

Number, Number Sense and Operations

- A. Use place value concepts to represent whole numbers using numerals, words and physical models.
- 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.
- C. Sort and compare two-dimensional figures and three-dimensional objects according to their characteristics and properties.
- E. Recognize two- and three-dimensional objects from different positions.
- G. Identify and draw figures with line symmetry.

Patterns, Functions and Algebra

- D. Model problem situations, using objects, pictures, numbers and other symbols.
- G. Describe and compare qualitative and quantitative changes.

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.
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KINDERGARTEN MATH SCOPE AND SEQUENCE

EARLY THIRD QUARTER

Number, Number Sense and Operations

- A. Use place value concepts to represent whole numbers using numerals, words and physical models.
- B. Recognize, classify, compare and order whole numbers.
- D. Determine the value of a collection of coins and dollar bills.

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.
- D. Apply measurement techniques to measure length, weight and volume (capacity).

Patterns, Functions and Algebra

- A. Sort, classify and order objects by size, number and other properties, and describe the attributes used.
- D. Model problem situations, using objects, pictures, numbers and other symbols.
- G. Describe and compare qualitative and quantitative changes.

Data Analysis and Probability

- D. Describe the probability of chance events as more, less or equally likely to occur.

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.
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LATE THIRD QUARTER

Number, Number Sense and Operations

- A. Use place value concepts to represent whole numbers using numerals, words and physical models.
- B. Recognize, classify, compare and order whole numbers.

Measurement

- A. Explain the need for standard units of measure.
- C. Develop common referents for units of measure for length, weight, volume (capacity) and time to make comparisons and estimates.
- E. Recognize that using different units of measurement will yield different numbers for the same measurement.

Patterns, Functions and Algebra

- D. Model problem situations, using objects, pictures, numbers and other symbols.
- G. Describe and compare qualitative and quantitative changes.

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.
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EARLY FOURTH QUARTER

Number, Number Sense and Operations

- A. Use place value concepts to represent whole numbers using numerals, words and physical models.
- B. Recognize, classify, compare and order whole numbers.
- G. Model, represent and explain addition as combining sets and counting on.
- H. Model, represent and explain subtraction as comparison, take-away and part-to-whole.

Patterns, Functions and Algebra

- D. Model problem situations, using objects, pictures, numbers and other symbols.
- G. Describe and compare qualitative and quantitative changes.

Mathematical Processes

- H. Recognize the mathematical meaning of common words and phrases, and relate everyday language to mathematical language and symbols.

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.
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LATE FOURTH QUARTER

Number, Number Sense and Operations

- A. Use place value concepts to represent whole numbers using numerals, words and physical models.
- B. Recognize, classify, compare and order whole numbers.
- I. Model, represent and explain multiplication as repeated addition, rectangular arrays and skip counting.
- K. Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions.
- L. Demonstrate fluency in adding and subtracting multiples of 10, and recognize combinations that make 10.

Patterns, Functions and Algebra

- D. Model problem situations, using objects, pictures, numbers and other symbols.
- G. Describe and compare qualitative and quantitative changes.

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.
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