

CURRICULUM MAP – GRADE 4

CHAPTER 1

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Recognize and name whole numbers to millions	Number Sense	Number Sets	D
Write whole numbers through millions	Number Sense	Number Sets	D
Determine place value 1,000,000's and beyond	Number Sense	Relationship	I/D
Writes numbers in expanded form / notation	Number Sense	Relationship	D/T

CHAPTER 2

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Recognize and name whole numbers to millions	Number Sense	Number Sets	D
Use estimation in problem solving	Number Sense	Estimation	D
Use benchmark numbers in problem solving	Number Sense	Estimation	D/T

CHAPTER 3 -- NONE

CHAPTER 4

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Recognize and use functions	Patterns and Function	Relationship	D
Use variables to represent missing values	Patterns and Function	Relationship	D

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CHAPTER 5

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Use various methods to collect data	Probability	Data Collection	D/T
Classify data to create meaning	Probability	Data Organization	D/T
Utilize tallies, tables, and charts to organize and display data, using technology as appropriate	Probability	Data Organization	D/T
Utilize graphs or diagrams to display data, utilizing technology as appropriate (single bar graphs, circle graphs, tables, charts)	Probability	Data Organization	D/T
Utilize graphs or diagrams to display data, utilizing technology as appropriate (line plots and Venn Diagrams)	Probability	Data Organization	I/D
Determine central tendency (mean, median, mode and range) in basic problems	Statistics	Data Interpretation	I/D

CHAPTER 6

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Classify data to create meaning	Probability	Data Organization	D/T
Utilize tallies, tables, and charts to organize and display data, using technology as appropriate	Probability	Data Organization	D/T
Utilize graphs or diagrams to display data, utilizing technology as appropriate (single bar graphs, circle graphs, tables, charts)	Probability	Data Organization	D/T
Utilize graphs or diagrams to display data, utilizing technology as appropriate (line plots and Venn Diagrams)	Probability	Data Organization	I/D
Describe and compare collected data	Statistics	Data Interpretation	D
Analyze data to derive meaning	Statistics	Data Interpretation	D
Make predictions based on analysis	Statistics	Data Interpretation	I

CHAPTER 7

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Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Tell time using a clock; nearest minute	Measurement	Time	D/T
Determine elapsed time using a calendar	Measurement	Time	D/T
Determine elapsed time using a clock	Measurement	Time	D

CHAPTER 8

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Divide whole numbers – basic facts	Number Sense	Computation without calculator	D/T

CHAPTER 9

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Divide whole numbers – basic facts	Number Sense	Computation without calculator	D/T
Multiply whole numbers 2 digit x 1 digit	Number Sense	Computation without calculator	D/T

CHAPTER 10

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Multiply whole numbers 2 digit x 1 digit	Number Sense	Computation without calculator	D/T
Multiply whole numbers 3 digit x 1 digit	Number Sense	Computation without calculator	D/T

CHAPTER 11

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Use estimation in problem solving	Number Sense	Estimation	D

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CHAPTER 12

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Multiply whole numbers 2 digit x 2 digit	Number Sense	Computation without calculator	I
Multiply whole numbers 3 digit x 2 digit & beyond	Number Sense	Computation without calculator	I

CHAPTER 13

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Divide whole numbers 2 digit x 1 digit	Number Sense	Computation without calculator	D/T

CHAPTER 14

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Divide whole numbers 3 digit x 1 digit	Number Sense	Computation without calculator	I/D

CHAPTER 15

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Divide whole numbers 2 digit x 2 digit	Number Sense	Computation without calculator	I/D

CHAPTER 16

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Identify greatest common factor (through 50)	Number Sense	Number Theory	I/D
Express a number in its prime factorization form	Number Sense	Number Theory	I
Identify multiples	Number Sense	Number Theory	I
Identify least common multiple (through 24)	Number Sense	Number Theory	I/D
Identify prime and composite	Number Sense	Number Theory	I
Test for divisibility (2, 3, 4, 5, 6, 9, 10)	Number Sense	Number Theory	I/D

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CHAPTER 17

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Identify and label points, lines, and line segments	Geometry	Geometry	D
Identify and label rays and angles	Geometry	Geometry	D
Identify parts of 2-D and 3-D shapes (vertices, edges, right angle, face, base, altitude & slant height)	Geometry	Geometry	D/T
Identify right angles	Geometry	Geometry	D/T
Develop spatial sense (flip, turn, slide)	Geometry	Geometry	D/T
Develop spatial sense: 2-D, 3-D (incl. draw / construct models)	Geometry	Geometry	D
Recognize angles (right angles)	Measurement	Angles	D/T
Classify angles	Measurement	Angles	D
Measure angles to nearest degree	Measurement	Angles	I
Identify parallel, intersecting and perpendicular lines	Geometry	Geometry	D/T
Identify and describe shapes from simple nets / flat patterns (cubes, rectangular and triangular prisms, rectangular and triangular pyramids)	Geometry	Geometry	D/T

CHAPTER 18

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Identify and calculate radius and diameter	Measurement	Types	D
Classify triangles according to sides and/or angles	Geometry	Geometry	D
Classify quadrilaterals according to sides and/or angles	Geometry	Geometry	D

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CHAPTER 19

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Simplify and order fractions (to sixteenths) including mixed fractions	Number Sense	Relationship	D
Uses benchmark fractions in problem solving	Number Sense	Estimation	I/D
Identify equivalent fractions (to sixteenths) including mixed fractions	Number Sense	Relationship	D
Reduce fractions to lowest/simplest term	Number Sense	Relationship	D
Read and write mixed numbers	Number Sense	Relationship	D/T
Use proper and improper fractions in problem solving	Number Sense	Relationship	I/D
Express probability as a ratio, percent, fraction and words	Probability	Numerical Representation	I/D

CHAPTER 20

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Add / subtract fractions with like denominators	Number Sense	Computation without calculator	D/T
Add / subtract fractions with unlike denominators	Number Sense	Computation without calculator	I/D
Add / subtract mixed numbers	Number Sense	Computation without calculator	I

CHAPTER 21

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Read and write decimals to thousandths & beyond	Number Sense	Relationship	I
Compare and order decimals to nearest hundredth	Number Sense	Relationship	D
Identify equivalent decimals	Number Sense	Relationship	I
Relate and convert fractions to decimals	Number Sense	Relationship	D

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CHAPTER 22

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Round decimals to the nearest tenth and hundredth	Number Sense	Estimation	I
Uses benchmark decimals in problem solving	Number Sense	Estimation	I/D
Read and write decimals to hundredths	Number Sense	Relationship	D

CHAPTER 23

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Recognize customary units of measurement (length, capacity, weight)	Measurement	Systems	D
Use customary units to measure/determine capacity (cups, pints, quarts, gallons)	Measurement	Types	D/T
Convert customary / metric measurement	Measurement	Types	D
Converts within a system (quarts to cups, mm to cm, etc.)	Measurement	Systems	D

CHAPTER 24

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Recognize metric units of measurement	Measurement	Systems	D
Make reasonable estimates of measurement	Measurement	Systems	D
Use metric units to make linear measurements (mm, cm, m)	Measurement	Types	D/T
Use metric units to measure weight (g & kg)	Measurement	Types	D/T
Measure / determine volume of rectangular prisms	Measurement	Types	I
Convert customary / metric measurement	Measurement	Types	D
Use customary measurements to make linear measurements to 1/8 inch	Measurement	Types	D/T

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CHAPTER 25

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Recognize and name: special quadrilaterals and other polygons	Geometry	Geometry	D
Identify and name regular polygons with 3, 4, 5, 6 or 8 sides	Geometry	Geometry	D
Make reasonable estimates of measurement	Measurement	Systems	D
Use formula to find perimeter of common & complex figures	Measurement	Types	I
Determine area (square, rectangle and right triangle) – metric & customary	Measurement	Types	D

CHAPTER 26

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Classify three-dimensional shapes (pyramids, prisms)	Geometry	Geometry	D/T
Develop spatial sense: 2-D, 3-D (incl. draw / construct models)	Geometry	Geometry	D
Identify similar shapes	Geometry	Geometry	D

CHAPTER 27

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Use tree diagrams, tables, and systematic listing to count outcomes, choices, and possibilities	Probability	Chance	I
Relate/compare experimental probability	Probability	Chance	I

CHAPTER 28

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Classify quadrilaterals according to sides and/or angles	Geometry	Geometry	D

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CHAPTER 29

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Recognize, name and compare integers	Number Sense	Number Sets	I
Create generalizations	Patterns and Functions	Logic	D

CHAPTER 30

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Locate and plot objects using the rectangular coordinate system (one quadrant grids using numbers only)	Geometry	Geometry	I/D

SUPPLEMENT

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Write whole numbers through billions	Number Sense	Number Sets	I
Use estimation in problem solving	Number Sense	Estimation	D
Classify triangles according to sides and/or angles	Geometry	Geometry	D
Identify locations using coordinates	Geometry	Geometry	D/T
Estimate distances from a map (using a scale)	Measurement	Estimation	D
Make change using coins	Measurement	Money	D
Understand basic concept of ratio and proportion (scale map and proportional context)	Number Sense	Relationship	I/D
Determine distance between two points using a scale	Number Sense	Relationship	I/D

ALL CHAPTERS

Mathematical skill	Conceptual Framework	Subset	Curriculum Level
Utilize problem solving strategies	Problem Solving	Problem Solving	D
Utilizes mental math	Problem Solving	Problem Solving	D