Mathletics

Manitoba Curriculum

Activities (Courses) and Skill Quests

Grades 3-6

July, 2025

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Grade 3

1 Number

1.1 Develop number sense.

3.N.1 Say the number sequence between any two given numbers forward and backward: from 0 to 1000 by 10s or 100s, using any starting point, 5s, using starting points that are multiples of 5, 25s, using starting points that are multiples of 25. From 0 to 100 by 3s, using starting points that are multiples of 3, 4s, using starting points that are multiples of 4	
Course Topics	**Activities**
Number-Counting and Ordering	Who has the Money?
	Counting by Fives
	Counting by Tens
	Money
	Skip Counting
	Skip Counting with coins
Topics	**Skill Quests**
Count to 1000	Counting by 5s to 1000, forward & backward
	Counting by 10s to 1000, forward & backward
	Counting by 100s to 1000, forward & backward
	Counting by 1s to 1000, forward & backward
	Count by multiples of 3 to 100, forward/backward
	Count by multiples of 4 to 100, forward & backward
	Counting by 25s to 1000, forward & backward

3.N.2 Represent and describe numbers to 1000, concretely, pictorially, and symbolically.	
Course Topics	**Activities**
Number-Counting and Ordering	Model Numbers
Topics	**Skill Quests**
Represent & describe numbers to 1000	Reading & writing numbers up to 1000
	Connecting multiples of 10 & 100 to number words

3.N.3 Compare and order numbers to 1000.	
Course Topics	**Activities**
Number-Counting and Ordering	Compare Numbers to 100
	Ascending Order
	Descending Order
	Which is Bigger?
	Which is Smaller?
Topics	**Skill Quests**
Compare & order numbers to 1000	Identifying numbers before & after within 1000
	Comparing numbers to 1000
	Ordering numbers to 1000

3.N.4 Estimate quantities less than 1000 using referents.	
Course Topics	**Activities**
Number-Counting and Ordering	Nearest 10?
	Nearest 100?
Topics	**Skill Quests**
Estimate quantities less than 1000	Estimating quantities using referents

3.N.5 Illustrate, concretely and pictorially, the meaning of place value for numerals to 1000.	
Course Topics	**Activities**
Number-Counting and Ordering	Model Numbers
	Place value 2
	Understanding Place Value 1
Topics	**Skill Quests**
Place value of numbers up to 1000	Identifying place value of numbers to 1000
	Using place value to partition 3-digit numbers
	Non-standard partitioning, 3- digit numbers
	Solving place value number problems

3.N.6 Describe and apply mental mathematics strategies for adding two 2-digit numerals, such as: adding from left to right, taking one addend to the nearest multiple of ten and then compensating, using doubles	
Course Topics	**Activities**
Number-Addition	Magic Mental Addition
	Add Two 2-Digit Numbers
	Add Two 2-Digit Numbers: Regroup
	Add Numbers: Regroup a Ten
Topics	**Skill Quests**
Add 2-digit numbers, mental strategies	Adding 2-digit numbers, jump strategy
	Adding 2-digit numbers, split strategy
	Adding 2-digit numbers, bridging to ten
	Adding 2-digit numbers, using place value
	Adding tens to a 2-digit number, models

3.N.7 Describe and apply mental mathematics strategies for subtracting two 2-digit numerals, such as: taking the subtrahend to the nearest multiple of ten and then compensating, thinking of addition, using doubles	
Course Topics	**Activities**
Number-Subtraction	Magic Mental Subtraction
	2-Digit Differences: Regroup
	Columns that Subtract
	2-Digit Differences
	Subtract Numbers
	Subtract Numbers: Regroup
	Decompose Numbers to Subtract
Topics	**Skill Quests**
Subtract 2-digit numbers, mental methods	Subtracting 2-digit numbers, jump strategy
	Subtracting 2-digit numbers, split strategy
	Subtracting 2-digit numbers, bridging to ten
	Subtracting 2-digit numbers, round & compensate
	Subtracting tens from a 2-digit number, models

3.N.8 Apply estimation strategies to predict sums and differences of two 2-digit numerals in a problem-solving context.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Estimate - two 2-digit number problems	Estimating with two 2-digit number problems

3.N.9 Demonstrate an understanding of addition and subtraction of numbers with answers to 1000 (limited to 1-, 2-, and 3-digit numerals) by: using personal strategies for adding and subtracting with and without the support of manipulatives, creating and solving problems in contexts that involve addition and subtraction of numbers concretely, pictorially, and symbolically.	
Course Topics	**Activities**
Number-Addition	Columns that Add
	Column Addition
	Strategies for Column Addition
	Complements to 50 and 100
Number-Subtraction	Column Subtraction
	Columns that Subtract
	Estimate Differences
Pattern, Relations, Variables, Equations	Bar model problems 1
	Bar model problems 2
Topics	**Skill Quests**
Addition & subtraction to 1000	Adding up to 1000 using jump strategy
	Adding up to 1000 using split strategy
	Adding up to 1000 using bridging to ten
	Adding up to 1000 using rounding & compensating
	Adding up to 1000 using formal algorithm
	Subtracting up to 1000 using jump strategy
	Subtracting up to 1000 using split strategy
	Subtracting up to 1000 using bridging to ten
	Subtract up to 1000 using rounding & compensating
	Subtracting up to 1000 using formal algorithm
	Adding & subtracting to 1000 using jump strategy
	Adding & subtracting to 1000 using split strategy
	Representing add/subtract problems using bar model
	Solving addition & subtraction word problems

3.N.10 Apply mental math strategies to determine addition facts and related subtraction facts to 18 (9 + 9).	
Course Topics	**Activities**
Number-Addition	Fact Families: Add and Subtract
	Addition Properties
	Commutative Property of Addition
	Related Facts 1
	Addition Facts
Number-Subtraction	Subtraction Facts to 18
Topics	**Skill Quests**
Mental strategies - add/sub facts to 18	Using the commutative property of addition
	Adding 3 single-digit numbers
	Finding the difference between 2 numbers
	Using doubles & near doubles to add & subtract
	Mental strategies for addition & subtraction facts
	Adding & subtracting zero

3.N.11 desc Demonstrate an understanding of multiplication to 5 × 5 by: representing and explaining multiplication using equal grouping and arrays, creating and solving problems in context that involve multiplication, modelling multiplication using concrete and visual representations, and recording the process symbolically, relating multiplication to repeated addition, relating multiplication to division	
Course Topics	**Activities**
Number-Multiplication & Division	Groups of Two
	Groups of Three
	Groups of Four
	Groups of Five
	Multiplication Arrays
	Model Multiplication to 5 × 5
Topics	**Skill Quests**
Multiplication concepts to 5 x 5	Using repeated addition to multiply
	Exploring multiplication by 2
	Exploring multiplication by 3
	Exploring multiplication by 4
	Exploring multiplication by 5
	Multiplication facts to 5 x 5

3.N.12 Demonstrate an understanding of division by: representing and explaining division using equal sharing and equal grouping, creating and solving problems in context that involve equal sharing and equal grouping, modelling equal sharing and equal grouping using concrete and visual representations, and recording the process symbolically, relating division to repeated subtraction, relating division to multiplication (limited to division related to multiplication facts up to 5 × 5).	
Course Topics	**Activities**
Number-Multiplication & Division	Dividing Twos
	Dividing Threes
	Dividing Fours
	Dividing Fives
	Making Equal Groups
Topics	**Skill Quests**
Division concepts (up to 5 x 5 facts)	Using repeated subtraction to divide
	Dividing by 2
	Dividing by 3
	Dividing by 4
	Dividing by 5
Multiplication & division relationship	Modelling multiplication & division relationship
	Solving problems using arrays
	Solving multiplication & division word problems

3.N.13 Demonstrate an understanding of fractions by: explaining that a fraction represents a portion of a whole divided into equal parts, describing situations in which fractions are used, comparing fractions of the same whole with like denominators	
Course Topics	**Activities**
Number-Fractions	Halves and Quarters
	Shape Fractions
	Model Fractions
	Compare fractions 1a
	Is it half?
Topics	**Skill Quests**
Fraction concepts	Finding halves
	Finding fourths
	Working with halves & fourths
	Working with thirds
	Working with sixths
	Working with thirds & sixths
	Working with fifths
	Working with eighths
	Working with halves, fourths & eighths
	Working with halves, thirds, fourths
	Representing simple fractions
	Ordering & comparing fractions

2 Patterns and Relations (Patterns)

2.1 Use patterns to describe the world and solve problems.

3.PR.1 Demonstrate an understanding of increasing patterns by: describing, extending, comparing, creating patterns using manipulatives, diagrams, and numbers (to 1000).	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Increasing Patterns
	Describing Patterns
	Count Forward Patterns
Topics	**Skill Quests**
Increasing patterns	Working with increasing number patterns to 100
	Working with increasing number patterns to 1000
	Working with visual patterns

3.PR.2 Demonstrate an understanding of decreasing patterns by: describing, extending, comparing, creating patterns using manipulatives, diagrams, and numbers (starting from 1000 or less).	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Describing Patterns
	Count Backward Patterns
Topics	**Skill Quests**
Decreasing patterns	Working with decreasing number patterns within 100
	Working with decreasing number pattern within 1000

3 Patterns and Relations (Variables and Equations)

3.1 Represent algebraic expressions in multiple ways.

3.PR.3 Solve one-step addition and subtraction equations involving symbols representing an unknown number.	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Missing Values
	Problems: Add and Subtract
	Bar model problems 1
	Bar model problems 2
Topics	**Skill Quests**
One-step add/sub problems with unknowns	One-step number problems with unknowns up to 20
	One-step number problems with unknowns up to 100

4 Shape and Space (Measurement)

4.1 Use direct or indirect measurement to solve problems.

3.SS.1 Relate the passage of time to common activities using nonstandard and standard units (minutes, hours, days, weeks, months, years).	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Understand passage of time	Understanding passage of time concepts
	Introducing time in hours, minutes & seconds

3.SS.2 Relate the number of seconds to a minute, the number of minutes to an hour, and the number of days to a month in a problem-solving context.	
Course Topics	**Activities**
Shape and Measurement (Time)	Using a Calendar
Topics	**Skill Quests**
Understand measures of time	Using calendars
	Solving problems related to units of time

3.SS.3 Demonstrate an understanding of measuring length (cm, m) by: selecting and justifying referents for the units cm and m, modelling and describing the relationship between the units cm and m, estimating length using referents, measuring and recording length, width, and height	
Course Topics	**Activities**
Shape and Measurement (Measurement)	How Long is That?
	Comparing Length
	Everyday Length
	Measuring Length
	Compare Length
	Compare Length 1
Topics	**Skill Quests**
Understand & measure length (m, cm)	Measuring in standard units: cm & m
	Selecting units of measurement: m, cm
	Ordering & comparing lengths: m, cm
	Converting between m & cm
	Estimating & measuring in cm
	Measuring length of 3D objects

3.SS.4 Demonstrate an understanding of measuring mass (g, kg) by: selecting and justifying referents for the units g and kg, modelling and describing the relationship between the units g and kg, estimating mass using referents, measuring and recording mass	
Course Topics	**Activities**
Shape and Measurement (Measurement)	Everyday Mass
	How Heavy?
Topics	**Skill Quests**
Understand & measure mass (kg, g)	Measuring mass: kilograms
	Measuring mass: grams
	Selecting units of measurement: kg, g
	Understanding relationships between kg & g

3.SS.5 Demonstrate an understanding of perimeter of regular and irregular shapes by: estimating perimeter using referents for centimetre or metre, measuring and recording perimeter (cm, m), constructing different shapes for a given perimeter (cm, m) to demonstrate that many shapes are possible for a perimeter	
Course Topics	**Activities**
Shape and Measurement (Measurement)	Perimeter of Shapes
	Perimeter
Topics	**Skill Quests**
Understand & measure perimeter	Understanding & calculating perimeter

5 Shape and Space (3-D Objects and 2-D Shapes)

5.1 Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

3.SS.6 Describe 3-D objects according to the shape of the faces, and the number of edges and vertices.	
Course Topics	**Activities**
Shape & Space (3-D Objects, 2-D Shapes)	How many Faces?
	How many Edges?
	How many Corners?
	Faces, Edges and Vertices
Topics	**Skill Quests**
3-D objects	Introducing the attributes of 3D objects
	Introducing cubes
	Introducing cylinders
	Introducing spheres
	Introducing cones
	Introducing prisms & pyramids
	Describing the attributes of 3-D objects
	Comparing & sorting 3-D objects
	Making basic models of 3-D objects

3.SS.7 Sort regular and irregular polygons, including: triangles, quadrilaterals, pentagons, hexagons, octagons according to the number of sides.	
Course Topics	**Activities**
Shape & Space (3-D Objects, 2-D Shapes)	Collect the Shapes 2
	Collect the Polygons
Topics	**Skill Quests**
Sort & identify 2-D shapes	Comparing 2-D shapes
	Identifying & naming 2-D shapes
	Sorting 2-D shapes
Regular & irregular polygons	Understanding regular & irregular polygons

6 Statistics and Probability (Data Analysis)

6.1 Collect, display, and analyze data to solve problems.

3.SP.1 Collect first-hand data and organize it using: tally marks, line plots, charts, lists to answer questions.	
Course Topics	**Activities**
Statistics & Probability (Data Analysis)	Tallies
	Interpreting Tables
Topics	**Skill Quests**
Organize first-hand data	Understanding & using line plots
	Understanding & using data in lists & tables
	Understanding the statistical process

3.SP.2 Construct, label, and interpret bar graphs to solve problems.	
Course Topics	**Activities**
Statistics & Probability (Data Analysis)	Sorting Data 1
	Bar Graphs 1
	Bar Graphs 2
Topics	**Skill Quests**
Bar graphs	Understanding & using bar graphs

Grade 4

1 Number

1.1 Develop number sense.

4.N.1 Represent and describe whole numbers to 10 000, pictorially and symbolically.	
Course Topics	**Activities**
Number-Place Value	Place Value to Thousands
	Expanding Numbers
	Place value 3
	Understanding Place Value 2
Topics	**Skill Quests**
Number concepts to 10 000	Reading & writing numbers to 10 000
	Understanding place value, 4-digit numbers
	Partitioning 4-digit numbers

4.N.2 Compare and order numbers to 10 000.	
Course Topics	**Activities**
Number-Place Value	Ascending Order
	Descending Order
	Which Is Greater?
	Which Is Less?
Topics	**Skill Quests**
Compare & order numbers to 10 000	Identifying numbers before & after to 10 000
	Identifying missing numbers to 10 000
	Comparing & ordering numbers to 10 000

4.N.3 Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3- and 4-digit numerals), concretely, pictorially, and symbolically, by: using personal strategies, using the standard algorithms, estimating sums and differences, solving problems	
Course Topics	**Activities**
Number-Addition & Subtraction	Adding Colossal Columns
	Subtracting Colossal Columns
	3-Digit Differences
	Estimate Sums
	Add 3-Digit Numbers
	Add 3-Digit Numbers: Regroup
	Estimate Differences
	3-Digit Differences: 1 Regrouping
	3-Digit Differences: 2 Regroupings
	Budgeting
	3-Digit Differences with Zeros
	Add Multi-Digit Numbers 1
	Add Three 3-Digit Numbers: Regroup
Topics	**Skill Quests**
Addition to 10 000	Adding up to 10 000 using a number line
	Adding up to 10 000 using place value
	Adding up to 10 000 using a split strategy
	Adding up to 10 000 using rounding & compensating
	Adding up to 10 000 using algorithms
	Choosing mixed addition strategies
Subtraction to 10 000 Add & subtract word problems to 10 000	Subtracting up to 10 000 using a number line
	Subtracting up to 10 000 using place value
	Subtracting up to 10 000 using a split strategy
	Subtracting up to 10 000 using round & compensate
	Subtracting up to 10 000 using algorithms
	Choosing mixed subtraction strategies
	Solving addition & subtraction word problems

4.N.4 Explain the properties of 0 and 1 for multiplication and the property of 1 for division.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Properties of 0 & 1	Multiplying by 1 or 0
	Dividing by 1

4.N.5 Describe and apply mental mathematics strategies, such as: skip-counting from a known fact, using halving/doubling, using doubling and adding one more group, using patterns in the 9s facts, using repeated doubling	
Course Topics	**Activities**
Number-Multiplication	Groups of Ten
	Groups of Six
	Groups of Seven
	Groups of Eight
	Groups of Nine
	Times Tables
Number-Division	Dividing Twos
	Dividing Threes
	Dividing Fours
	Dividing Fives
	Dividing Sixes
	Dividing Sevens
	Dividing Eights
	Dividing Nines
	Dividing Tens
	Division Facts
Number-Multiplication & Division	Fact Families: Multiply and Divide
	Multiplication Grids
	Missing Numbers: x and ÷ facts
	Arrays 1
Topics	**Skill Quests**
Multiplication facts to 9 x 9	Exploring multiplication by 2
	Exploring multiplication by 3
	Exploring multiplication by 4
	Exploring multiplication by 5
	Exploring multiplication by 6
	Exploring multiplication by 7
	Exploring multiplication by 8
	Exploring multiplication by 9
	Recalling multiplication facts to 7 x 7
Division facts to 81 ÷ 9	Dividing by 2 & 5
	Dividing by 3 & 6
	Dividing by 4 & 8
	Dividing by 9
Multiplication & division facts	Recalling multiplication/division facts to 7 x 7
	Understand relationship, multiplication & division

4.N.6 Demonstrate an understanding of multiplication (2- or 3-digit numerals by 1-digit numerals) to solve problems by: using personal strategies for multiplication with and without concrete materials, using arrays to represent multiplication, connecting concrete representations to symbolic representations, estimating products	
Course Topics	**Activities**
Number-Multiplication	Multiply Multiples of 10
	Multiplication Properties
Number-Multiplication & Division	Problems: Multiply and Divide
	Word Problems: Multiply and Divide
	Multiply and Divide Problems 1
	Multiply 3 single-digit numbers
	Equivalent Facts: Multiply
Topics	**Skill Quests**
Multiplication, 2- or 3-digit by 1-digit	Multiplying 2- or 3-digits by 1-digit, place value
	Multiplying 2- or 3-digits by 1-digit, doubling
	Multiplying 2- or 3-digits by 1-digit, area model
	Multiplying 2- or 3-digits by 1-digit, factoring
	Multiplying 2- or 3-digits by 1-digit, algorithm
	Multiply to 3-digits x 1-digit, expanded algorithm
	Multiply to 3-digits x 1-digit, round to estimate
	Multiplying by multiples of 10 & 100

4.N.7 Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by: using personal strategies for dividing with and without concrete materials, estimating quotients, relating division to multiplication	
Course Topics	**Activities**
Number-Division	Dividing Twos
	Dividing Threes
	Dividing Fours
	Dividing Fives
	Dividing Sixes
	Dividing Sevens
	Dividing Eights
	Dividing Nines
	Dividing Tens
	Division Facts
	Remainders by Arrays
Topics	**Skill Quests**
Division, 2-digit by 1-digit	Dividing 2-digits by 1-digit, models
	Dividing 2-digits by 1-digit, halving
	Dividing 2-digits by 1-digit, related facts
	Dividing 2-digits by 1-digit, inverse relationship
	Dividing 2-digit by 1-digit, extended algorithm
	Dividing 2-digit by 1-digit, algorithm
	Dividing 2-digit by 1-digit, round to estimate
	Dividing by 1 using bar models

4.N.8 Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to: name and record fractions for the parts of a whole or a set, compare and order fractions, model and explain that for different wholes, two identical fractions may not represent the same quantity, provide examples of where fractions are used	
Course Topics	**Activities**
Number-Fractions	What Fraction is Shaded?
	Partition into Equal Parts
	Identifying Fractions on a Number Line
	Fraction Fruit Sets 1
Topics	**Skill Quests**
Represent fractions less than/equal to 1	Introducing the terms numerator & denominator
	Understanding fractions
	Representing halves, fourths & eighths
	Representing thirds & sixths
	Representing fifths
	Representing tenths
	Representing eighths
Compare & order fractions	Comparing & ordering unit fractions with models
	Comparing & ordering common fractions with models
	Comparing fractions with the same numerator
	Comparing fractions with the same denominator

4.N.9 Describe and represent decimals (tenths and hundredths), concretely, pictorially, and symbolically.	
Course Topics	**Activities**
Number-Decimals	Decimals on the Number Line
	Decimals from Words to Digits 1
	Decimal Place Value
Topics	**Skill Quests**
Decimals to hundredths	Introducing decimal notation
	Introducing decimal tenths
	Introducing decimal hundredths

4.N.10 Relate decimals to fractions (to hundredths).	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Connect decimals & fractions	Connecting decimals & fractions, tenths
	Connecting decimals & fractions, hundredths
	Connecting decimals & fractions, up to hundredths

4.N.11 Demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by: using compatible numbers, estimating sums and differences, using mental math strategies to solve problems.	
Course Topics	**Activities**
Number-Decimals	Nearest Whole Number
	Rounding Decimals 1
	Add Decimals 1
	Subtract Decimals 1
	Decimal Complements
Topics	**Skill Quests**
Add & subtract decimals to hundredths	Adding decimals to tenths
	Subtracting decimals to tenths
	Adding decimals to hundredths
	Subtracting decimals to hundredths
	Estimating decimal sums & differences
	Adding & subtracting decimal word problems
Use decimals in the context of money	Using decimals in money
	Estimating & calculating change
	Solving word problems involving money

2 Patterns and Relations (Patterns)

2.1 Use patterns to describe the world and solve problems.

4.PR.1 Identify and describe patterns found in tables and charts, including a multiplication chart.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Patterns in tables & charts	Exploring increasing number patterns
	Identifying number patterns up to 1000
	Investigating number sequences

4.PR.2 Reproduce a pattern shown in a table or chart using concrete materials.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Different representations in patterns	Relating patterns to tables or charts
	Identifying & describing additive number patterns
	Creating addition patterns from a given rule
	Creating multiplication patterns from a given rule

4.PR.3 Represent and describe patterns and relationships using charts and tables to solve problems.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Use patterns to solve problems	Using patterns to solve problems

4.PR.4 Identify and explain mathematical relationships using charts and diagrams to solve problems.	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Venn Diagram1
Topics	**Skill Quests**
Use Venn & Carroll diagrams	Introducing Venn diagrams
	Introducing Carroll diagrams
	Relating Carroll & Venn diagrams
	Describing pattern rules

3 Patterns and Relations (Variables and Equations)

3.1 Represent algebraic expressions in multiple ways.

4.PR.5 Express a problem as an equation in which a symbol is used to represent an unknown number.	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Problems: Multiply and Divide 1
	Problems: Add and Subtract 2
	I am Thinking of a Number!
Topics	**Skill Quests**
Express a problem as an equation	Matching equations to word problems
	Using symbols to represent unknown numbers

4.PR.6 Solve one-step equations involving a symbol to represent an unknown number.	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Problems: Multiply and Divide 1
	Missing Values
	Problems: Add and Subtract 2
	Find the Missing Number 1
	Missing Values: Decimals
	Missing Numbers: Variables
Topics	**Skill Quests**
One-step equations using all operations	Finding missing numbers: add & subtract equations
	One-step equations: addition and subtraction
	One-step equations: multiplication and division
	One-step equations: balancing number sentences

4 Shape and Space (Measurement)

4.1 Use direct or indirect measurement to solve problems.

4.SS.1 Read and record time using digital and analog clocks, including 24-hour clocks.	
Course Topics	**Activities**
Shape and Space-Measurement	What is the Time?
	Time Mentals
	Elapsed Time
	24 Hour Time
	What Time Will it Be?
	Hours and Minutes
	Five Minute Times
Topics	**Skill Quests**
Read & record time	Telling time to the hour & half hour
	Telling time to the quarter hour
	Telling time to 5 minutes
	Telling time to the minute
	Using am & pm notation
	Using 24-hour time

4.SS.2 Read and record calendar dates in a variety of formats.	
Course Topics	**Activities**
Shape and Space-Measurement	Using a Calendar
Topics	**Skill Quests**
Read & record calendar dates	Reading & writing calendar dates

4.SS.3 Demonstrate an understanding of area of regular and irregular 2-D shapes by: recognizing that area is measured in square units, selecting and justifying referents for the units cm2 or m2, estimating area by using referents for cm2 or m2, determining and recording area (cm2 or m2), constructing different rectangles for a given area (cm2 or m2) in order to demonstrate that many different rectangles may have the same area	
Course Topics	**Activities**
Shape and Space-Measurement	Area of Shapes
	Equal Areas
	Area: Squares and Rectangles
Topics	**Skill Quests**
Understand area	Measuring area using nonstandard units
	Introducing formal units for area: cm^2
	Introducing formal units for area: m^2
Measure the area of rectangles	Estimating & measuring areas of rectangles
	Comparing & ordering rectangular areas
	Finding the area of a rectangle, arrays
	Finding the area of a rectangle, area model
	Finding the area of rectangles, formula
Approximate area, non-rectilinear shapes	Approximating areas, nonrectilinear shapes

5 Shape and Space (3-D Objects and 2-D Shapes)

5.1 Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

4.SS.4 Solve problems involving 2-D shapes and 3-D objects.	
Course Topics	**Activities**
Shape & Space (3-D Objects, 2-D Shapes)	How many Faces?
	How many Edges?
	How many Corners?
	Faces, Edges and Vertices
Topics	**Skill Quests**
Teacher directed	

4.SS.5 Describe and construct rectangular and triangular prisms.	
Course Topics	**Activities**
Shape & Space (3-D Objects, 2-D Shapes)	Faces, Edges, and Vertices 1
Topics	**Skill Quests**
Understand prisms	Identifying prisms in the environment
	Introducing rectangular & triangular prisms
	Comparing & describing prisms
	Connecting nets to rectangular & triangular prisms

6 Shape and Space (Transformations)

6.1 Describe and analyze position and motion of objects and shapes.

4.SS.6 Demonstrate an understanding of line symmetry by: identifying symmetrical 2-D shapes, creating symmetrical 2-D shapes, drawing one or more lines of symmetry in a 2-D shape	
Course Topics	**Activities**
Shape and Space-Measurement	Symmetry or Not?
	Symmetry
Topics	**Skill Quests**
Recognize & draw line symmetry	Recognizing line symmetry
	Identifying & drawing lines of symmetry

7 Statistics and Probability (Data Analysis)

7.1 Collect, display, and analyze data to solve problems.

4.SP.1 Demonstrate an understanding of many-to-one correspondence.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Understand many-to-one correspondence	Comparing pictographs - different correspondence

4.SP.2 construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions.	
Course Topics	**Activities**
Statistics & Probability (Data Analysis)	Pictographs
	Bar Graphs 1
	Bar Graphs 2
	Reading from a Bar Chart
	Divided Bar Graphs
Topics	**Skill Quests**
Graphs using many-to-one correspondence	Using pictographs with many-to- one correspondence
	Compare pictographs with different correspondence
	Using bar graphs with many-to-one correspondence

Grade 5

1 Number

1.1 Develop number sense.

5.N.1 Represent and describe whole numbers to 1 000 000.	
Course Topics	**Activities**
Number-Place Value	Numbers in Words
	Numbers from Words to Digits 1
	Expanding Numbers
	Expanded Notation
	Place value 3
	Partition and rename 3
	Place Value 1 (×10 and ÷10)
	Place Value 2 (×10 and ÷10)
Topics	**Skill Quests**
Number concepts to 1 000 000	eading & writing numbers up to 6 digits
	Comparing & ordering numbers up to 6 digits
	Identifying place value of 6- digit numbers
	Using place value to partition 6-digit numbers

5.N.2 Apply estimation strategies, including: front-end rounding, compensation, compatible numbers in problem-solving contexts.	
Course Topics	**Activities**
Number-Estimation	Estimation: Add and Subtract
	Estimation: Multiply and Divide
	Estimate Sums
	Estimate Differences
	Estimate Quotients
	Nearest 100?
	Nearest 1000?
Topics	**Skill Quests**
Strategies for estimation & computation	Rounding numbers up to 6-digits
	Round numbers to estimate - addition & subtraction
	Checking calculations when adding & subtracting
	Using compensation to add & subtract
	Round numbers to estimate - multiply & divide
	Checking calculations when multiplying & dividing

5.N.3 Apply mental math strategies to determine multiplication and related division facts to 81 (9 x 9).	
Course Topics	**Activities**
Number-Multiplication	Multiplication Arrays
	Multiplication Properties
	Related Facts 2
Number-Division	Division Facts
Topics	**Skill Quests**
Multiplication facts to 9 x 9	Multiplication facts for 2
	Multiplication facts for 3
	Multiplication facts for 4
	Multiplication facts for 5
	Multiplication facts for 6
	Multiplication facts for 7
	Multiplication facts for 8
	Multiplication facts for 9
	Multiplying by 1 or 0
	Recalling multiplication facts to 9 x 9
	Relationship between multiplication & division
Division facts to 81 ÷ 9	Dividing by 2 & 5
	Dividing by 3 & 6
	Dividing by 4 & 8
	Dividing by 9
	Recall multiplication & division facts to 9 x 9

5.N.4 Apply mental mathematics strategies for multiplication, such as: annexing then adding zeros, halving and doubling, using the distributive property	
Course Topics	**Activities**
Number-Multiplication	Multiplying by 10, 100, 1000
	Multiplication Properties
	Double and Halve to Multiply
	Mental Methods Multiplication
	Mental Methods Multiplication 2
Topics	**Skill Quests**
Mental strategies to multiply	Multiplying by multiples of 10, 100 & 1000
	Multiplying using doubling
	Multiplying using doubling & halving
	Multiplying using distributive property

5.N.5 Demonstrate an understanding of multiplication (1- and 2-digit multipliers and up to 4-digit multiplicands), concretely, pictorially, and symbolically, by: using personal strategies, using the standard algorithm, estimating products to solve problems.	
Course Topics	**Activities**
Number-Multiplication	Multiply: 1-Digit Number
	Multiply: 1-Digit Number, Regroup
	Multiply: 2-Digit by 1-Digit
	Multiply 2 Digits Area Model
	Mental Methods Multiplication
	Mental Methods Multiplication 2
Topics	**Skill Quests**
Multiply up to 2-digit by up to 4-digits	Multiplying 2-digits by 2-digits, area model
	Multiplying 2-digits by 2-digits, factorising
	Multiplying 2-digits by 2-digits, use known facts
	Multiplying 2-digits by 2-digits, formal algorithm
	Multiplying 3-digits by 1-digit, split method
	Multiplying 3-digits by 1-digit, area model
	Multiplying up to 3-digits, area model
	Multiplying up to 3-digits, commutative property
	Multiplying up to 4-digits by 1-digit, algorithm
	Solving multiplication word problems

5.N.6 Demonstrate an understanding of division (1- and 2-digit divisors and up to 4-digit dividends), concretely, pictorially, and symbolically, and interpret remainders by: using personal strategies, using the standard algorithm, estimating quotients to solve problems.	
Course Topics	**Activities**
Number-Division	Division Facts
	Mental Methods Division
	Mental Methods Division 1
	Mental Methods Division 2
	Divide: 1-Digit Divisor 1
	Divide: 1-Digit Divisor 2
	Divide: 1-Digit Divisor, Remainder
	Compatible Numbers
	Remainders by Arrays
	Short Division
Topics	**Skill Quests**
Divide up to 4-digits by up to 2-digits	Dividing up to 3-digit by 1-digit, no remainders
	Dividing by partitioning, no remainders
	Dividing 3-digits by 1-digit, factoring
	Finding the remainder, 2-digits by 1-digit
	Dividing by partitioning with remainders
	Dividing 3-digits by 1-digit, algorithm
	Dividing up to 4-digits by 1-digit

5.N.7 Demonstrate an understanding of fractions by using concrete and pictorial representations to: create sets of equivalent fractions, compare fractions with like and unlike denominators	
Course Topics	**Activities**
Number-Fractions	Shading Equivalent Fractions
	Ordering Fractions
	Simplifying Fractions
	Comparing Fractions 1
	Comparing Fractions 2
	Equivalent Fractions on a Number Line 2
	Equivalent Fraction Wall 2
Topics	**Skill Quests**
Equivalent fractions	Finding equivalent fractions with models
	Finding equivalent fractions using multiplication
	Finding equivalent fractions using a number line
Compare & order fractions	Comparing unit fractions, different denominators
	Comparing & ordering proper fractions

5.N.8 Describe and represent decimals (tenths, hundredths, thousandths) concretely, pictorially, and symbolically.	
Course Topics	**Activities**
Number-Decimals-Place Value	Decimals on a Number Line
	Decimals on the Number Line
	Decimals from Words to Digits 2
	Decimal Place Value
Topics	**Skill Quests**
Decimals to thousandths	Understanding decimals to thousandths
	Partitioning decimal numbers to thousandths

5.N.9 Relate decimals to fractions (tenths, hundredths, thousandths).	
Course Topics	**Activities**
Number-Fractions	Fractions to Decimals
	Fractions to Decimals 2
	Fraction to Terminating Decimal
Number-Decimals-Place Value	Decimals to Fractions 1
	Decimals to Fractions 2
Topics	**Skill Quests**
Relate decimals & fractions	Relating decimals & fractions up to thousandths

5.N.10 Compare and order decimals (tenths, hundredths, thousandths) by using: benchmarks, place value, equivalent decimals	
Course Topics	**Activities**
Number-Decimals-Place Value	Comparing Decimals
	Comparing Decimals 1
	Decimal Order
	Comparing Decimals 2
Topics	**Skill Quests**
Compare & order decimals to thousandths	Comparing & ordering decimals to thousandths

5.N.11 Demonstrate an understanding of addition and subtraction of decimals (to thousandths), concretely, pictorially, and symbolically, by: using personal strategies, using the standard algorithms, using estimation, solving problems	
Course Topics	**Activities**
Number-Estimation	Nearest Whole Number
	Estimate Decimal Differences 1
	Estimate Decimal Differences 2
	Estimate Decimal Sums 1
	Estimate Decimal Sums 2
Number-Decimals-Place Value	Rounding Decimals
	Rounding Decimals 1
	Rounding Decimals 2
	Decimal Complements
Number-Adding & Subtracting Decimals	Adding Decimals
	Subtracting Decimals
	Add Decimals 1
	Add Decimals 2
	Subtract Decimals 1
	Subtract Decimals 2
	Adding and Subtracting Decimals
Topics	**Skill Quests**
Add & subtract decimals to thousandths	Adding decimals to thousandths
	Subtracting decimals to thousandths
	Adding & subtracting decimal word problems
	Estimating sums & differences to thousandths

2 Patterns and Relations (Patterns)

2.1 Use patterns to describe the world and solve problems.

5.PR.1 Determine the pattern rule to make predictions about subsequent elements.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Represent, analyze & apply patterns	Additive & subtractive number patterns
	Generating add/subtract patterns from a given rule
	Working with repeating number & shape patterns
	Multiplication & division number patterns
	Modelling number patterns from a table of values
	Writing pattern rules as algebraic expressions
	Working with shape patterns & rules

3 Patterns and Relations (Variables and Equations)

3.1 Represent algebraic expressions in multiple ways.

5.PR.2 Solve problems involving single-variable (expressed as symbols or letters), one-step equations with whole-number coefficients, and whole-number solutions.	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Missing Values
	Missing Numbers
	Find the Missing Number 1
	I am Thinking of a Number!
Topics	**Skill Quests**
One-step equations with variables	Solving one-step equations using bar model
	Writing one-step equations using variables
	Solving one-step equations & word problems

4 Shape and Space (Measurement)

4.1 Use direct or indirect measurement to solve problems.

5.SS.1 Design and construct different rectangles given either perimeter or area or both (whole numbers), and draw conclusions.	
Course Topics	**Activities**
Shape and Space (Measurement)	Perimeter of Shapes
	Perimeter: Squares and Rectangles
	Perimeter Detectives 1
Topics	**Skill Quests**
Perimeter of rectangles	Introducing perimeter
Area of rectangles, formula	Finding the area of rectangles, formula
Relationships between area & perimeter	Solving perimeter & area problems

5.SS.2 Demonstrate an understanding of measuring length (mm) by: selecting and justifying referents for the unit mm, modelling and describing the relationship between mm and cm units, and between mm and m units	
Course Topics	**Activities**
Shape and Space (Measurement)	Converting cm and mm
	Converting Units of Length
	Measuring Length
	Centimetres and Metres
Topics	**Skill Quests**
Measure length in millimetres	Introducing millimetres
	Recording length in decimal notation
Relationship between mm, cm & m	Comparing & ordering lengths in mm & cm
	Converting between mm & cm
	Converting between m & cm
	Selecting appropriate units of length: mm, cm & m

5.SS.3 Demonstrate an understanding of volume by: selecting and justifying referents for cm3 or m3 units, estimating volume by using referents for cm3 or m3, measuring and recording volume (cm3 or m3), constructing rectangular prisms for a given volume	
Course Topics	**Activities**
Shape and Space (Measurement)	Volume: Cuboid 1
	Volume: Rectangular Prisms 1
Topics	**Skill Quests**
Measure volume in cubic units	Using unit cubes to measure volume
	Using cubic cm & m to measure volume
	Estimating volume using cubic cm & m

5.SS.4 Demonstrate an understanding of capacity by: describing the relationship between mL and L, selecting and justifying referents for mL or L units, estimating capacity by using referents for mL or L, measuring and recording capacity (mL or L)	
Course Topics	**Activities**
Shape and Space (Measurement)	Millilitres and Litres
	Capacity Word Problems
Topics	**Skill Quests**
Measure capacity in L & mL	Introducing litres & millilitres
	Using millilitres & litres as references
	Measuring capacity in mL
	Estimating capacity using mL & L
	Selecting units to measure capacity (mL, L)

5 Shape and Space (3-D Objects and 2-D Shapes)

5.1 Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

5.SS.5 Describe and provide examples of edges and faces of 3-D objects, and sides of 2-D shapes, that are: parallel, intersecting, perpendicular, vertical, horizontal	
Course Topics	**Activities**
Shape & Space (3-D Objects & 2-D Shapes)	Faces, Edges, and Vertices
	Faces, Edges, and Vertices 1
Topics	**Skill Quests**
Features of 2-D shapes & 3-D objects	Identifying features on 3-D objects
	Identifying features on 2-D shapes

5.SS.6 Identify and sort quadrilaterals, including: rectangles, squares, trapezoids, parallelograms, rhombuses according to their attributes.	
Course Topics	**Activities**
Shape & Space (3-D Objects & 2-D Shapes)	Collect the Polygons
Topics	**Skill Quests**
Identify & sort quadrilaterals	Sorting & naming quadrilaterals
	Classifying quadrilaterals

6 Shape and Space (Transformations)

6.1 Describe and analyze position and motion of objects and shapes.

5.SS.7 Perform a single transformation (translation, rotation, or reflection) of a 2-D shape, and draw and describe the image.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

5.SS.8 Identify a single transformation (translation, rotation, or reflection) of 2-D shapes.	
Course Topics	**Activities**
Shape & Space (3-D Objects & 2-D Shapes)	Transformations
	Flip, Slide, Turn
Topics	**Skill Quests**
Single transformations of 2-D shapes	Introducing slides/translations
	Introducing flips/reflections
	Introducing turns/rotations
	One-step translations, reflections & rotations

7 Statistics and Probability (Data Analysis)

7.1 Collect, display, and analyze data to solve problems.

5.SP.1 Differentiate between first-hand and second-hand data.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

5.SP.2 Construct and interpret double bar graphs to draw conclusions.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Double bar graphs	Interpreting data, double bar graphs
	Representing data, double bar graphs

8 Statistics and Probability (Chance and Uncertainty)

8.1 Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

5.SP.3 Describe the likelihood of a single outcome occurring, using words such as: impossible, possible, certain	
Course Topics	**Activities**
Statistics & Probability	What are the Chances?
	Most Likely and Least Likely
Topics	**Skill Quests**
Likelihood of single outcomes	Exploring the language of probability

5.SP.4 Compare the likelihood of two possible outcomes occurring, using words such as: less likely, equally likely, more likely	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Likelihood of two possible outcomes	Describing chances of everyday events
	Understanding chance experiments, equal outcomes
	Understanding chance experiments, unequal outcomes
	Understand chance experiments, independent events

Grade 6

1 Number

1.1 Develop number sense.

6.N.1 Demonstrate an understanding of place value for numbers: greater than one million, less than one-thousandth	
Course Topics	**Activities**
Number-Place Value	Numbers from Words to Digits 2
	Numbers from Words to Digits 3
	Place Value to Billions
	Comparing Numbers
Number-Decimals	Rounding Decimals 1
	Rounding Decimals 2
Topics	**Skill Quests**
Place value to billions	Reading & writing numbers up to billions
	Place value up to billions
Place value smaller than thousandths	Place value smaller than thousandths
	Solving problems, smaller than one thousandth

6.N.2 Solve problems involving large numbers, using technology.	
Course Topics	**Activities**
Number-Operations with Numbers	Multiplying by 10, 100, and 1000
	Dividing by 10, 100, 1000
	Adding Colossal Columns
	Subtracting Colossal Columns
	Long Multiplication
	Estimate Sums
	Estimate Differences
	Estimate Products
	Estimate Quotients
	Rounding Numbers
Topics	**Skill Quests**
Solve problems involving large numbers	Solving problems, larger than one million

6.N.3 Demonstrate an understanding of factors and multiples by: determining multiples and factors of numbers less than 100, identifying prime and composite numbers, solving problems involving factors or multiples	
Course Topics	**Activities**
Number-Multiples & Factors	Multiples
	Factors
	Find the Factor
	Product of Prime Factors
	Prime Factoring
	Prime or Composite?
	Greatest Common Factor
	Least Common Multiple
Topics	**Skill Quests**
Introduce prime & composite numbers	Introducing prime & composite numbers
Prime factors	Using prime factors
Find factors & multiples	Finding multiples up to 100, including LCM
	Finding factors up to 100, including GCF
	Solving problems, factors & multiples

6.N.4 Relate improper fractions to mixed numbers.	
Course Topics	**Activities**
Number-Fractions	What Mixed Number Is Shaded?
	Converting Mixed and Improper
	Mixed to Improper
	Improper to Mixed
	Identifying fractions beyond 1
	Mixed and Improper Numbers on a Number Line
Topics	**Skill Quests**
Improper fractions & mixed numbers	Comparing & ordering mixed numbers
	Comparing & ordering improper fractions
	Comparing & ordering fractions & mixed numbers
	Converting improper fractions to mixed numbers
	Converting mixed numbers to improper fractions

6.N.5 Demonstrate an understanding of ratio, concretely, pictorially, and symbolically.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Introduction to ratios	Introducing ratios
	Simplifying ratios
	Dividing a quantity into a given ratio
	Identifying equivalent ratios

6.N.6 Demonstrate an understanding of percent (limited to whole numbers), concretely, pictorially, and symbolically.	
Course Topics	**Activities**
Number-Percents	Percents to Fractions
	Modelling Percentages
	Match Decimals and Percentages
	Percents and Decimals
Topics	**Skill Quests**
Whole-number percents	Introducing percents
Percent equivalents	Representing percent & fraction equivalents
	Representing percent & decimal equivalents
	Fraction, decimal & percent equivalents
Calculate percentage discounts	Calculating percentage discounts
Calculate percentages of whole numbers	Calculating simple percentages

6.N.7 Demonstrate an understanding of integers, concretely, pictorially, and symbolically.	
Course Topics	**Activities**
Number-Integers	Integers on a Number Line
	Comparing Integers
	Ordering Integers
Topics	**Skill Quests**
Read & represent integers	Investigating integers
	Understanding integers in real-life contexts
	Comparing & ordering integers

6.N.8 Demonstrate an understanding of multiplication and division of decimals (involving 1-digit whole-number multipliers, 1-digit natural number divisors, and multipliers and divisors that are multiples of 10), concretely, pictorially, and symbolically, by: using personal strategies, using the standard algorithms, using estimation, solving problems	
Course Topics	**Activities**
Number-Operations with Numbers	Estimate Decimal Operations
	Estimate Decimal Differences 2
	Estimate Decimal Sums 2
Topics	**Skill Quests**
Multiply decimals to thousandths	Multiplying decimals & whole numbers
	Multiplying decimals & whole numbers, base 10
Divide decimals to thousandths	Dividing decimals & whole numbers, base 10
	Dividing decimals & whole numbers

6.N.9 Explain and apply the order of operations, excluding exponents (limited to whole numbers).	
Course Topics	**Activities**
Number-Operations with Numbers	Order of Operations 1 (BEDMAS)
Topics	**Skill Quests**
Order of operations with whole numbers	Order of operations, addition & subtraction
	Order of operations, multiplication & division
	Order of operations, 4 operations
	Order of operations, grouping symbols
	Solving problems, order of operations

2 Patterns and Relations (Patterns)

2.1 Use patterns to describe the world and solve problems.

6.PR.1 Demonstrate an understanding of the relationships within tables of values to solve problems.	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Table of Values
	Function Rules and Tables
	Find the Function Rule
Topics	**Skill Quests**
Relationships within tables	Determining missing values in a table of values
	Making predictions about linear growing patterns

6.PR.2 Represent and describe patterns and relationships using graphs and tables.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Patterns in tables of values & graphs	Creating a table of values, visual pattern
	Representing linear patterns, tables & graphs

3 Patterns and Relations (Variables and Equations)

3.1 Represent algebraic expressions in multiple ways.

6.PR.3 Represent generalizations arising from number relationships using equations with letter variables.	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Write an Equation: Word Problems
	Writing Equations
	Writing Algebraic Expressions
	Magic Symbols 2
	Pyramid Puzzles 2
Topics	**Skill Quests**
Patterns, expressions & equations	Writing an equation to represent a table of values
	Writing expressions, rule for a pattern
Understand variables	Matching equations & word problems
	Writing & solving equations given a problem

6.PR.4 Demonstrate and explain the meaning of preservation of equality, concretely, pictorially, and symbolically	
Course Topics	**Activities**
Pattern, Relations, Variables, Equations	Missing Values: Decimals
	Write an Equation: Word Problems
	Writing Equations
	Writing Algebraic Expressions
	Missing Numbers: Variables
Topics	**Skill Quests**
Preservation of equality	Solving 1-step equations
	Solving 1-step equations using a balance
	Solving 1-step equations using algebra tiles
	Understanding the preservation of equality
	Creating equivalent forms of an equation

4 Shape and Space (Measurement)

4.1 Use direct or indirect measurement to solve problems.

6.SS.1 Demonstrate an understanding of angles by: identifying examples of angles in the environment, classifying angles according to their measure, estimating the measure of angles using 45°, 90°, and 180° as reference angles, determining angle measures in degrees, drawing and labelling angles when the measure is specified	
Course Topics	**Activities**
Shape & Space-Angles & Triangles	Classifying Angles
	Estimating Angles
	Equal Angles
	Comparing Angles
	Labelling Angles
	Measuring Angles
	Angles of Revolution: Unknown Values
Topics	**Skill Quests**
Angle measurement & classification	Classifying angles
Angles up to 360°	Measuring angles with a circular protractor

6.SS.2 Demonstrate that the sum of interior angles is: 180° in a triangle, 360° in a quadrilateral	
Course Topics	**Activities**
Shape & Space-Angles & Triangles	Angle Sum of a Triangle
	Angle Measures in a Triangle
	Angle Sum of a Quadrilateral
Topics	**Skill Quests**
Sum of interior angles	Finding the missing angle of a triangle
	Finding the missing angle of a quadrilateral

6.SS.3 Develop and apply a formula for determining the: perimeter of polygons, area of rectangles, volume of right rectangular prisms	
Course Topics	**Activities**
Shape & Space-Shapes	Perimeter: Squares and Rectangles
	Perimeter: Composite Shapes
	Perimeter Detectives 1
	Perimeter Detectives 2
	Perimeter: Triangles
	Perimeter: Triangles 2
	Area: Squares and Rectangles
	Area: Squares and Rectangles 2
	Volume: Rectangular Prisms 2
	Volume: Rectangular Prisms 1
Topics	**Skill Quests**
Relationships between area & perimeter	Solving perimeter & area problems
Volume of rectangular prisms	Finding the volume of rectangular prisms
	Finding the missing dimension, rectangular prisms
Area of rectangles	Finding the area of rectangles
Perimeter of polygons	Determining the perimeter of polygons

5 Shape and Space (3-D Objects and 2-D Shapes)

5.1 Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

6.SS.4 Construct and compare triangles, including: scalene, isosceles, equilateral, right, obtuse, acute in different orientations.	
Course Topics	**Activities**
Shape & Space-Angles & Triangles	Triangles: Acute, Right, Obtuse
	Triangle - Tasters
Topics	**Skill Quests**
Classification of triangles	Classifying triangles by their sides & angles

6.SS.5 Describe and compare the sides and angles of regular and irregular polygons.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Regular & irregular polygons	Understanding regular & irregular polygons

6 Shape and Space (Transformations)

6.1 Describe and analyze position and motion of objects and shapes.

6.SS.6 Perform a combination of transformations (translations, rotations, or reflections) on a single 2-D shape, and draw and describe the image.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Combinations of transformations	Identifying combinations of transformations

6.SS.7 Perform a combination of successive transformations of 2-D shapes to create a design, and identify and describe the transformations.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Recognize tessellations	Recognizing tessellations

6.SS.8 Identify and plot points in the first quadrant of a Cartesian plane using whole-number ordered pairs.	
Course Topics	**Activities**
Shape & Space-Angles & Triangles	Coordinate Graphs: 1st Quadrant
Topics	**Skill Quests**
The Cartesian plane, first quadrant	Plotting points in the first quadrant
	Plotting points that create a shape

6.SS.9 Perform and describe single transformations of a 2-D shape in the first quadrant of a Cartesian plane (limited to whole-number vertices).	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Transformations in the first quadrant	Investigating translations in the first quadrant
	Identifying reflections in the first quadrant
	Identifying rotations in the first quadrant

7 Statistics and Probability (Data Analysis)

7.1 Collect, display, and analyze data to solve problems.

6.SP.1 Create, label, and interpret line graphs to draw conclusions.	
Course Topics	**Activities**
Statistics & Probability	Line Graphs: Interpretation
Topics	**Skill Quests**
Construct line graphs	Constructing a line graph
	Interpreting data in a line graph
	Choosing graphs, continuous vs discrete data

6.SP.2 Select, justify, and use appropriate methods of collecting data, including: questionnaires, experiments, databases, electronic media	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Data collection	Data collection: questionnaires

6.SP.3 Graph collected data and analyze the graph to solve problems.	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Select data displays	Selecting data displays

8 Statistics and Probability (Chance and Uncertainty)

8.1 Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

6.SP.4 Demonstrate an understanding of probability by: identifying all possible outcomes of a probability experiment, differentiating between experimental and theoretical probability, determining the theoretical probability of outcomes in a probability experiment, determining the experimental probability of outcomes in a probability experiment, comparing experimental results with the theoretical probability for an experiment	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Theoretical & experimental probability	Comparing observed & expected frequencies
	Probability of 0 & 1
	Predicting the probability of a specific outcome
	Listing the sample space for an event

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