Mathletics Florida Program of Studies Activities



Grades 3-6



June, 2023

Mathletics

Florida Program of Studies Classic Courses June 2023

Grade 3	3
Number Sense and Operations	3
Fractions	5
Algebraic Reasoning	6
Measurement	7
Geometric Reasoning	8
Data Analysis and Probability	9
Grade 4	10
Number Sense and Operations	10
Fractions	12
Algebraic Reasoning	13
Measurement	14
Geometric Reasoning	15
Data Analysis and Probability	16
Grade 5	
Number Sense and Operations	17
Fractions	
Algebraic Reasoning	19
Measurement	20
Geometric Reasoning	21
Data Analysis and Probability	22
Grade 6	23
Number Sense and Operations	23
Algebraic Reasoning	25
Geometric Reasoning	26
Data Analysis and Probability	27

Grade 3

Number Sense and Operations

MA.3.NSO.1 Understand the place value of four-digit numbers.	
Course Topic	Activities Title
NSO - Place Value	Place Value - Thousands
	Expanding Numbers
	Understanding Place Value 1
	Place Value Partitioning
	Understanding Place Value 2
	Place Value 3
	Partition and Rename 2
	Smallest and Largest Numbers
	Ascending Order
	Descending Order
	Compare Numbers to 100
	Nearest Ten?
	Nearest Hundred?

MA.3.NSO.2 Add and subtract multi-digit whole numbers. Build an understanding of multiplication and division operations.	
Course Topic	Activities Title
NSO - Addition & Subtraction	Add 3-Digit Numbers
	Add 3-Digit Numbers: Regroup
	Add Multi-Digit Numbers 1
	Column Subtraction
	3-Digit Differences
	3-Digit Differences: 1 Regrouping
	3-Digit Differences: 2 Regroupings
	Adding Colossal Columns
NSO - Multiplication & Division 1	Groups of Two
	Groups of Three
	Groups of Four
	Groups of Five
	Groups of Six
	Groups of Seven
	Groups of Eight
	Groups of Nine
	Groups of Ten
	Arrays 1
	Multiplication Arrays
	Frog Jump Multiplication

	Multiply Multiples of 10
	Multiply Multiples of 10
	Multiply More Multiples of 10
	Multiply: 1-Digit Number
	Multiply: 1-Digit Number, Regroup
	Multiply: 2-Digit by 1-Digit
NSO - Multiplication & Division 2	Dividing Threes
	Dividing Fours
	Dividing Fives
	Dividing Sixes
	Dividing Sevens
	Dividing Eights
	Dividing Nines
	Dividing Tens
	Problems: Times and Divide
	Multiply & Divide Problems 1

Fractions

MA.3. FR.1 Understand fractions as numbers and represent fractions.	
Course Topic	Activities Title
FR - Represent and	Fractions of a Collection
Interpret Fractions	What fraction Is Shaded 1
	Model Fractions
	Identifying Fractions Beyond 1
	Part-whole rods 2

MA.3.FR.2 Order and compare fractions and identify equivalent fractions.	
Course Topic	Activities Title
FR - Comparing Fractions	Comparing Fractions 1
	Compare Fractions 1a
	Compare Fractions 1b
	The Equivalent Fraction
	Equivalent Fraction Wall 1
	Equivalent Fraction Wall 2
	Shading Equivalent Fractions

Algebraic Reasoning

MA.3.AR.2 Develop an understanding of equality and multiplication and division.	
Course Topic	Activities Title
AR - Solving Problems	Problems: Multiply and Divide
	Fact Families: Multiply and Divide
	Multiplication Turn-Abouts
	Related Facts 2

MA.3.AR.3 Identify numerical patterns, including multiplicative patterns.	
Course Topic	Activities Title
AR - Patterns	Odd or Even
	Odd & Even Numbers 1
	Multiples of
	Increasing Patterns
	Decreasing Patterns
	Describing Patterns

Measurement

MA.3.M.1 Measure attributes of objects and solve problems involving measurement.	
Course Topic	Activities Title
M - Units of Measurement &	Which Measuring Tool?
Tools	Filling Fast!
	Using a Litre
	Millilitres & Litres
	Cups, Pints, Quarts, Gallons
	Measuring Length
	How Long Is That (Customary)?
	Which Unit of Measurement?
	Centimetres & Metres
	Metres & Kilometres
	Inches, Feet, Yards
	Everyday Mass
	Mass Word Problems
	What's the Temperature (Celsius)?

MA.3.M.2 Tell and write time and solve problems involving time.	
Course Topic	Activities Title
M - Time	What Is the Time?
	Quarter To and Quarter Past
	Five Minute Times
	24 Hour Time
	Elapsed Time
	What Time Will it Be?
	Time Mentals

Geometric Reasoning

MA.3.GR.1	
Describe and identify relationships between lines and classify quadrilaterals.	
Course Topic	Activities Title
GR - Shapes	What Line Am I?
	Collect the Shapes 1
	Collect the Shapes 2
	Symmetry or Not?

MA.3.GR.2 Solve problems involving the perimeter and area of rectangles.	
Course Topic	Activities Title
GR - Perimeter & Area	Equal Areas
	Biggest Shape
	Area of Shapes
	Area of Shapes (inches, feet, yards)
	Area of Squares and Rectangles
	Perimeter
	Perimeter: Squares and Rectangles
	Perimeter of Shapes
	Perimeter Detectives 1

Data Analysis and Probability

MA.3.DP.1	
Collect, represent and interpret numerical and categorical data.	
Course Topic	Activities Title
DP - Statistical Data	Sorting Data/Analyzing Data (US)
	Picture Graphs: with scale & half symbols
	Bar Graphs 2

Grade 4

Number Sense and Operations

MA.4.NSO.1 Understand place value for multi-digit numbers.	
Course Topic	Activities Title
NSO - Place Value	Which is Greater?
	Which is Less?
	Ascending Order
	Descending Order
	Smallest & Largest Numbers
	Partition and Rename 3/Understanding Place Value 3 (CAN)
	Expanding Numbers
	Expanded Notation
	Numbers from Words to Digits 1
	Numbers from Words to Digits 2
	Place Value 1 (×10 and ÷10)
	Place Value 2 (×10 and ÷10)
	Nearest Hundred?
	Nearest Thousand?
	Rounding Numbers
	Decimals from Words to Digits 1
	Decimal Place Value
	Decimals on the Number Line
	Decimal Order 1
	Comparing Decimals 1
	Comparing Decimals 2

MA.4.NSO.2	
Build an understanding of operations with multi-digit numbers including decimals.	
Course Topic	Activities Title
NSO - Operations 1	Groups of Two
	Groups of Three
	Groups of Four
	Groups of Five
	Groups of Six
	Groups of Seven
	Groups of Eight
	Groups of Nine
	Groups of Ten
	Division Facts to 12
	Division Facts 1
	Dividing Twos
	Dividing Threes

-	Dividing Fours
	Dividing Fives
	Dividing Sixes
	Dividing Sevens
	Dividing Eights
	Dividing Tens
	Dividing Nines
NSO - Operations 2	Multiply: 1-Digit Number
	Multiply: 1-Digit Number, Regroup
	Multiply 2 Digits Area Model
	Long Multiplication
	Divide: 1-Digit Divisor 1
	Divide: 1-Digit Divisor 2
	Estimate Quotients
	Estimate Products
	Add Decimals 1
	Subtract Decimals 1

Fractions

MA.4.FR.1 Develop an understanding of the relationship between different fractions and the relationship between fractions and decimals.	
Course Topic	Activities Title
FR - Comparing Fractions	The Equivalent Fraction
	Equivalent Fraction Wall 1
	Shading Equivalent Fractions
	Comparing Fractions 1
	Compare Fractions 1a
	Compare Fractions 1b

MA.4.FR.2 Build a foundation of addition, subtraction and multiplication operations with fractions.	
Course Topic	Activities Title
FR - Operations with	Add subtract fractions 1
Fractions	Add Like Mixed Numbers
	One Take Fraction
	Add Like Fractions
	Subtract Like Fractions
	Model Fractions to Multiply
	Multiply Fraction by Whole Number

Algebraic Reasoning

MA.4.AR.1 Represent and solve problems involving the four operations with whole numbers and fractions.	
Course Topic	Activities Title
AR - Solving Problems	Remainders by Arrays
	Remainders by Tables
	Problems: Times & Divide
	Multiply & Divide Problems 1
	Common Denominator
	Fraction Fruits Set 1
	Unit Fractions
	Mental Methods Multiplication 2
	Mental Methods Division 2
	Word Problems with Letters

MA.4.AR.3 Recognize numerical patterns, including patterns that follow a given rule.	
Course Topic	Activities Title
AR - Patterns	Prime or Composite?
	Increasing Patterns
	Decreasing Patterns
	Pick the Next Number
	Describing Patterns

Measurement

MA.4.M.1 Measure the length of objects and solve problems involving measurement.	
Course Topic	Activities Title
M - Units of Measurement	Which Unit of Measurement?
and Tools	Converting cm and mm
	Converting Units of Length
	Litre Conversions
	Kilogram Conversions
	Converting Units of Mass
	Grams and Kilograms 1
	Cups, Pints, Quarts, Gallons
	Inches, Feet, Yards

MA.4.M.2 Solve problems involving time and money.	
Course Topic	Activities Title
M - Time	What is the Time?
	Time Mentals
	Five Minute Times
	Elapsed Time
	Time Conversions: Whole Numbers 1
	Time Conversions: Whole Numbers 2
	Making Change (USD)
	How Much Money? (USD)
	Choosing the Fewest Coins (USD)
	Money - totalling (USD)
	Money Problems: Four Operations

Geometric Reasoning

MA.4.GR.1 MA.4.GR.1 Draw, classify and measure angles.	
Course Topic	Activities Title
GR - Angles	Labelling Angles
	Classifying Angles
	Comparing Angles
	What Type of Angle?
	Estimating Angles
	Angles of Revolution: Unknown Values
	Angles of Revolution: Value of x

MA.4.GR.2	
Solve problems involving the perimeter and area of rectangles.	
Course Topic	Activities Title
GR - Perimeter and Area	Perimeter of Squares and Rectangles
	Perimeter Detectives 1
	Area of Shapes
	Area: Squares and Rectangles

Data Analysis and Probability

MA.4.DP.1 Collect, represent and interpret data and find the mode, median and range of a data set.	
Course Topic	Activities Title
DP - Statistical Data	The Median
	Median From Frequency
	Mode
	Median & Cumulative Frequency
	Line Graphs: Interpretation
	Interpreting Tables

Grade 5

Number Sense and Operations

MA.5.NSO.1 Understand the place value of multi-digit numbers with decimals to the thousandths place.	
Course Topic	Activities Title
NSO: Decimal Understanding	Decimal Place Value
	Decimals from Words to Digits 1
	Decimals from Words to Digits 2
	Decimal Order
	Decimal Order 1
	Decimal Order 2
	Comparing Decimals 1
	Comparing Decimals 2
	Decimals on the Number Line
	Rounding Decimals
	Rounding Decimals 1
	Rounding Decimals 2

MA.5.NSO.2 Add, subtract, multiply and divide multi-digit numbers.	
Course Topic	Activities Title
NSO: Decimal Operations	Add Decimals 1
	Subtract Decimals 1
	Decimal by Whole Number
	Estimate Decimal Operations
	Decimal by Whole Number
	Divide Decimal by Whole Number
	Long Multiplication
	Divide: 2-Digit Divisor, Remainder
	Mental Methods Division
	Mental Methods Division 1
	Mental Methods Division 2
	Estimate Quotients

Fractions

MA.5.FR.2 Perform operations with fractions.	
Course Topic	Activities Title
FR: Fraction Operations	Partition into Equal Parts
	Add Unlike Fractions
	Add Unlike Mixed Numbers
	Add: No Common Denominator
	Subtract Unlike Fractions
	Subtract Unlike Mixed Numbers
	Multiply Fraction by Whole Number
	Multiply: Whole Number and Fraction
	Multiply Fraction by Fraction
	Multiply Two Fractions 1
	Fraction Wall Labelling 2
	Multiply Mixed Numbers
	Divide Fractions Visual Model

Algebraic Reasoning

MA.5.AR.1 Solve problems involving the four operations with whole numbers and fractions.	
Course Topic	Activities Title
AR: Word Problems	Problems: Multiply and Divide
	Multiply and Divide Problems 1
	Word Problems: Add and Subtract
	Fraction Word Problems
	More Fraction Problems
	Divide by a Unit Fraction
	Money Problems: Four Operations

MA.5.AR.2 Demonstrate an understanding of equality, the order of operations and equivalent numerical expressions.	
Course Topic	Activities Title
AR: Expressions and Equations	Writing Algebraic Expressions
	Order of Operations 1 (PEDMAS)
	Writing Equations
	Write an Equation: Word Problems

MA.5.AR.3	
Analyze patterns and relationships between inputs and outputs.	
Course Topic	Activities Title
AR: Expressions and	Table of Values
Equations	Pattern Rules and Tables

Measurement

MA.5.M.1 Convert measurement units to solve multi-step problems.	
Course Topic	Activities Title
MA. Converting Units	Converting Units of Length
	Customary Units of Length
	Operations with Length
	Meters and Kilometers
	Customary Units of Weight 1
	Customary Units of Weight 2
	Milliliters and Liters
	Customary Units of Capacity
	Converting Units of Mass
	Mass Word Problems

Geometric Reasoning

MA.5.GR.4	
Plot points and represent problems on the coordinate plane.	
Course Topic	Activities Title
AR: Expressions and	Coordinate Graphs: 1st Quadrant
Equations	

MA.5.GR.2	
Find the perimeter and area of rectangles with fractional or decimal side lengths.	
Course Topic	Activities Title
GR. Perimeter and Area	Perimeter: Squares and Rectangles
	Area: Squares and Rectangles
	Area of Shapes
	Area of Shapes (inches, feet, yards)

MA.5.GR.3	
Solve problems involving the volume of right rectangular prisms.	
Course Topic	Activities Title
GR. Volume	Volume of Solids and Prisms - 1cm ³ blocks
	How many Blocks?
	Volume: Rectangular Prisms 1
	Volume: Rectangular Prisms 2

Data Analysis and Probability

MA.5.DP.1 Collect, represent and interpret data and find the mean, mode, median or range of a data set.	
Course Topic	Activities Title
DP. Statistics	Mean
	Mean from Frequency Table
	Median
	Median from Frequency
	Mode from Frequency Table
	Line Plots

Grade 6

Number Sense and Operations

MA.6.NSO.1 Extend knowledge of numbers to negative numbers and develop an understanding of absolute value.	
Course Topic	Activities Title
NSO: Absolute Value and	Absolute Value
Integers	Integers on a Number Line
	Ordering Integers
	Comparing Integers
	Directed Numbers
	Negative or Positive?

MA.6.NSO.2 Add, subtract, multiply and divide positive rational numbers.	
Course Topic	Activities Title
NSO: Multiplying and	Decimal by Decimal 1
Dividing Decimals	Multiply Decimals 1
	Divide Decimal by Decimal
	Divide Decimal by Whole Number
NSO: Multiplying and	Divide by a unit fraction
Dividing Fractions	Divide fractions visual model
	Divide Whole Number by Fraction
	Dividing Fractions by Fractions 1
NSO: Fraction and Decimal Word Problems	Money Problems: Four Operations
	Fraction Word Problems
	More Fraction Problems

MA.6.NSO.3	
Apply properties of operations to rewrite numbers in equivalent forms.	
Course Topic	Activities Title
NSO-Fractions, Decimals, and	Greatest Common Factor
Percents	Least Common Multiple
	Exponents
	Index Notation and Algebra/Exponent Notation and Algebra
	Prime Factorising of Whole Numbers/ Prime Factoring
	Prime Factorisation with Exponents
NSO-Fractions, Decimals, and	Common Fractions as Percentages
Percents	Decimals to Fractions 1
	Percents to Fractions
	Fraction to Decimals
	Fraction to Decimals 2

Fractions to Percentages (Calculator)
Fractions to Percentages (Non-Calculator)
Convert Decimals to Fractions 2
Decimals to Fractions 2
Fractional to Terminating Decimal
Percentage of an Amount Using Fractions (<100%)
Percentages to Fractions (with and without simplification)

MA.6.NSO.4	
Extend understanding of operations with integers.	
Course Topic	Activities Title
NSO: Operations with Integers	Integers: Add and Subtract
	More with Integers
	Add Integers
	Subtract Integers
	Adding Integers: Positive, Negative or Zero
	Integers: Multiplication and Division
	Multiplying and Dividing Integers

Algebraic Reasoning

MA.6.AR.1 Apply previous understanding of arithmetic expressions to algebraic expressions.	
Course Topic	Activities Title
AR: Expressions & Equations 1	Writing Algebraic Expressions
	Simple Substitution 1
	Simple Substitution 2
	Substitution in Formulae
	Integers: Operations Order
	Order of Operations 2 (PEDMAS)
	Recognising Like Terms
	Like Terms: Add, Subtract

MA.6.AR.2 Develop an understanding for solving equations and inequalities. Write and solve one- step equations in one variable.	
Course Topic	Activities Title
AR: Expressions & Equations 2	Checking Solutions
	Write an Equation: Word Problems
	Writing Equations
	Solve Equations: Add, Subtract 1
	Solve Equations: Add, Subtract 2
	Solve Equations: Multiply, Divide 1
	Solve Equations: Multiply, Divide 2

MA.6.AR.3		
Understand ratio a	Understand ratio and unit rate concepts and use them to solve problems.	
Course Topic	Activities Title	
AR: Ratios & Proportional	Word Problems: Ratio	
Relationships	Solve Proportions	
	Dividing a Quantity in a Ratio	
	Equivalent Ratios	
	Unitary Method	
	Percentage Word Problems	
	Solve Percent Equations	
	Rates	
	Table of Values	
	Reading Values from a Line	
	Graphing from a Table of Values	
	Rate Word Problems	
	Average Speed	
	Best Buy	

Geometric Reasoning

MA.6.GR.1		
Apply previous understanding of the coordinate plane to solve problems.		
Course Topic	Activities Title	
GR: Coordinates, Area and	Number Plane	
Volume	Coordinate Graphs	

MA.6.GR.2 Model and solve problems involving two-dimensional figures and three-dimensional figures.	
Course Topic	Activities Title
GR: Coordinates, Area and	Area of Triangles
Volume	Area of Squares and Rectangles
	Area of Quadrilaterals
	Area: Compound Figures
	Surface Area: Rectangular Prisms 1
	Surface Area: Rectangular Pyramids
	Volume of Rectangular Prisms 1
	Volume of Triangular Prisms
	Volume: Prisms

Data Analysis and Probability

MA.6.DP.1	
Develop an understanding of statistics and determine measures of center and measures	
of variability. Summarize statistical distributions graphically and numerically.	
Course Topic	Activities Title
DP: Statistics	Box-and-Whisker Plots 1
	Histograms
	Histograms for Grouped Data
	Which Measure of Central Tendency



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