

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal System: Number Concepts	Red and Blue Number Rods	Counts to 10 by units using the Red and Blue Number Rods.	●	●	●							1
Mathematics	Decimal System: Number Concepts	Sandpaper Numerals	Recognizes numerals from 0 - 9 using the Sandpaper Numerals.	●	●	●							2
Mathematics	Decimal System: Number Concepts	Red and Blue Number Rods and Sandpaper Numerals	Associates the numeral to the quantity using the Red and Blue Number Rods and Numeral Cards.	●	●	●							3
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Spindle Boxes	Counts to 9 units using separate units with the Spindle Boxes.	●	●	●							4
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Spindle Boxes	Demonstrates an understanding of Zero as an empty set using the Spindle Boxes.	●	●	●							5
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Spindle Boxes	Represents individual spindles as sets by binding each quantity together with green ribbon, tied in a bow, to form a set of 2, 3, 4, 5 . . . 9 spindles.		●	●							6
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Cards and Counters	Counts to 10 by units using the Cards and Counters.	●	●	●							7
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Sequencing Numeral Cards	Lays out loose numeral cards 1-9 in correct sequence without the use of a control.	●	●	●							8
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Cards and Counters	Lays out counters to indicate the concept of odd and even.	●	●	●							9
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Cards and Counters	Identifies and names odd and even quantities.	●	●	●							10
Mathematics	Fundamentals of the Decimal System: Introduction to Place: Value	Introduction to the Golden Beads Set	Identifies and names quantities 1, 10, 100 and 1,000 using the Golden Beads.	●	●	●							11
Mathematics	Decimal System: Introduction to Place Value: 1	Color-Coded Number Cards	Identifies and names numerals for 1, 10, 100, 1,000 using the Color-Coded Number Cards.		●	●							12

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Mathematics	Decimal System: Introduction to Place Value: 1	Golden Beads and Number Cards	Associates numeral to quantity 1, 10, 100, 1,000.		●	●							13
Mathematics	Decimal System: Introduction to Place Value: 1	Golden Beads	Identifies and names quantities from 1 to 9,999 using the Golden Beads.		●	●							14
Mathematics	Decimal System: Introduction to Place Value: 1	Color-Coded Number Cards	Identifies and names numerals from one to 9 999 using the Color-Coded Number Cards according to place value.		●	●							15
Mathematics	Decimal System: Introduction to Place Value: 1	Golden Beads and Number Cards	Associates numeral and quantity one to 9,999 using the Golden Beads and Color -Coded Number Cards.		●	●							16
Mathematics	Decimal System: Introduction to Place Value: 1	Golden Beads and Number Cards	Demonstrates awareness and understanding of Zero as a place holder.		●	●							17
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Colored Bead Stair	Associates quantities 1 - 9 with the bars of the Colored Bead Stair.	●	●	●							18
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Ten Bead Bars and Colored Bead Stair	Constructs, identifies, and names the quantities from 11 to 19 (using correct names eleven, twelve, etc.) by using the Golden Bead Ten Bars, and the Colored Bead Stair.		●	●	R						19
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Teen Board	Constructs, identifies and names the numerals from 11 to 19 by units using the Teen Board.		●	●	R						20
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Teen Board, Ten Bead Bars and Colored Bead Stair	Associates quantities and numerals 11 - 19 using the Teen Boards, Golden Bead Ten Bars, and Colored Bead Stair.		●	●	R						21
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Constructs, identifies, and names the quantities from 11 to 99 (using correct names eleven, twelve, etc.) by using the Golden Bead Ten Bars and the Golden Unit Beads.		●	●	R						22
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Ten Board and Golden Beads	Identifies that one more than nine takes the number to the next ten.		●	●	R						23
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Ten Board, Ten Bead Bars, and Unit Beads	Associates quantity with numerals, using correct names, 11 to 99 by using the Ten Boards, Golden Bead Ten Bars, and the Golden Unit Beads.		●	●	R						24

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Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		●	●	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		●	●	R						26
Mathematics	Decimal System: Introduction to Place Value: 2	Reading Quantities Constructed with the Golden Beads and Number Cards	Constructs, identifies, and names the numerals (naming correctly from left to right), up to 9,999, represented by the Colored Numeral Cards.		●	●	R						27
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Hundred Chain and Arrows	Counts from 1 to 100 by units, recognizing the printed numerals on the Number Straws, using the 100 Chain.		●	●	R						28
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Hundred Chain and Arrows	Recognizes that 100 is the square of 10.		●	●	R						29
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Hundred Board	Counts from 1 to 100 by units, recognizing the printed numerals, using the Hundred Board.		●	●	R						30
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Hundred Board	Recognizes patterns in numbers that are not in linear formation.		●	●	●						31
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Thousand Chain and Arrows	Counts from 1 to 1,000 by units, recognizing the printed numerals on the Number Arrows, using the 1,000 Chain.		●	●	R						32
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	Counting the Bead Chains by Units	Counts linearly by units, using the Bead Chains of the squares of the numbers 2, 3, 4, 5, 6, 7, 8, 9, and 10.		●	●	●						33
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	Skip Counting by 2's, 5's, and 10's using the Bead Chains and Number Rolls	Skip counts by 2's, 5's, and 10's using the Bead Chains.		●	●	R						34
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	Skip Counting by 3's, 4's, and 6's using the Bead Chains and Number Rolls	Skip counts by 3's, 4's, and 6's using the Bead Chains.		●	●	●	R					35

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Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	Skip Counting by 7's, 8's, and 9's using the Bead Chains and Number Rolls	Skip counts by 7's, 8's, and 9's using the Bead Chains.		●	●	●	R					36
Mathematics	Decimal System: Introduction to Place Value: 3	Numeral Cards	Recognizes and identify written numbers up to 999,999,999.					I	●				37
Mathematics	Decimal System: Introduction to Place Value: 3	Numeral Cards	Recognizes and identify written numbers up to 999,999,999,999.						●	●			38
Mathematics	Decimal System: Introduction to Place Value: 3	Numeral Cards	Recognizes and identify quantities up to 999,999,999,999,999.							I	●		39
Mathematics	Math Operations: Static Addition: 1	Red and Blue Number Rods	Adds two single-digit numbers, where the sum is less than 11, using the Red and Blue Number Rods.	●	●	●							40
Mathematics	Math Operations: Static Addition: 1	Golden Bead Materials	Adds quantities of up to four-digit addends, without exchanging, using the Golden Beads.		●	●							41
Mathematics	Math Operations: Static Addition: 1	Golden Bead Materials	Adds quantities of up to four-digit addends, with exchanging, using the Golden Beads.		●	●	●	R					42
Mathematics	Math Operations: Static Addition: 2	Stamp Game	Adds quantities of up to four-digit addends, without exchanging, using the Stamp Game.		●	●	●	R					43
Mathematics	Math Operations: Dynamic Addition: 2	Stamp Game	Adds quantities of up to four-digit addends, with exchanging, using the Stamp Game.				●	R					44
Mathematics	Math Operations: Static Addition: 3	Small Bead Frame	Adds quantities of up to four-digit addends, without exchanging, using the Small Bead Frame.		●	●	●	●					45
Mathematics	Math Operations: Static Addition: 3	Large Bead Frame	Adds quantities of up to four-digit addends, without exchanging, using the Large Bead Frame.		●	●	●	●					46
Mathematics	Math Operations: Dynamic Addition: 3	Dot Board	Adds quantities of up to four-digit addends, with exchanging, using the Dot Board, where the sum is less than 9,999.		●	●	●						47

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Mathematics	Math Operations: Static Addition of Seven-Digit Addends: 1	Large Bead Frame	Adds two seven-digit addends, without exchanging, using the Large Bead Frame.				●	●					48
Mathematics	Math Operations: Dynamic Addition of Seven-Digit Addends: 1	Large Bead Frame	Adds two seven-digit addends, with exchanging, using the Large Bead Frame.				●	●					49
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 1	Snake Game	Demonstrates knowledge of addition facts for two addends between 1-10, using the Snake Game.	●		●	●	R					50
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 2	Colored Bead Bars	Demonstrates knowledge of addition facts for two addends between 1-10, using the Colored Bead Bars.	●		●	●	R					51
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 3	Addition Strip Board	Demonstrates knowledge of addition facts for two addends, the sum of which is no larger than 10, using the Addition Strip Board.	●		●	●						52
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 4	Addition Charts	Demonstrates knowledge of addition facts for two addends between 1-10, using the Addition Charts.	●		●	●						53
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 5	Abstraction - could be demonstrated by using Stamp Game, Golden Beads and the like, or pencil and paper	Demonstrates knowledge of addition facts for two addends between 1-10, without manipulatives.				●	●	R				54
Mathematics	Associative and Commutative Properties of Addition	Bead Bars	Using the Bead Bars, demonstrates that, when adding any two numbers, the order of the addends can be changed and the total remains the same ($2 + 4 = 6$ or $4 + 2 = 6$).	●		●	●	●	R	R	R		55
Mathematics	Missing Addends: 1	Bead Bars	Solves missing addends in addition problems involving two addends between 1 and 10, using the Bead Bars.				●	●	R				56
Mathematics	Missing Addends: 2	Abstraction: Flash Cards or similar	Demonstrates ability to solve missing addends in addition problems involving two addends between 1 and 10, without manipulatives, using only Flash Cards.				●	●	R				57

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Mathematics	The Passage to Abstraction: Addition: 1	Golden Beads, Stamp Game, Bead Frames	Demonstrates ability to solve addition problems with two addends totaling up to 9,999, without the use of concrete manipulative materials.					●	●				58
Mathematics	The Passage to Abstraction: Addition: 2	Abstraction: Pencil and paper	Demonstrates ability to solve addition problems with multiple addends up to 9,999,999, without the use of concrete manipulative materials.					●	●				59
Mathematics	Math Operations: Static Subtraction: 1	Golden Bead Materials	Subtracts two four-digit numbers, without exchanging, using the Golden Beads .		●	●							60
Mathematics	Math Operations: Static Subtraction: 2	Stamp Game	Subtracts two four-digit numbers, without exchanging, using the Stamp Game.		●	●	●						61
Mathematics	Math Operations: Static Subtraction: 3	Small Bead Frame	Subtracts two four-digit numbers, without exchanging, using the Small Bead Frame.				●	●					62
Mathematics	Math Operations: Dynamic Subtraction: 1	Golden Bead Materials	Subtracts two four-digit numbers, with exchanging, using the Golden Beads.		●	●	●	R					63
Mathematics	Math Operations: Dynamic Subtraction: 2	Stamp Game	Subtracts two four-digit numbers, with exchanging, using the Stamp Game.				●	●					64
Mathematics	Math Operations: Dynamic Subtraction: 3	Small Bead Frame	Subtracts two four-digit numbers, with exchanging, using the Small Bead Frame.				●	●					65
Mathematics	Math Operations: Static Subtraction of One Seven-Digit Quantity from Another: 1	Golden Bead Materials	Subtracts one seven-digit number from another, without exchanging, using the Golden Beads.				●	●					66
Mathematics	Math Operations: Static Subtraction of One Seven-Digit Quantity from Another: 2	Large Bead Frame	Subtracts one seven-digit number from another, without exchanging, using the Large Bead Frame.				●	●					67

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Mathematics	Math Operations: Dynamic Subtraction of One Seven-Digit Quantity from Another: 1	Large Bead Frame	Subtracts one seven-digit number from another, with exchanging, using the Large Bead Frame.				●	●					68
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 1	Subtraction Strip Board	Demonstrates knowledge of subtraction facts for two quantities between 1-18, using the Subtraction Strip Board.	●		●	●	R					69
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 2	Subtraction Charts	Demonstrates knowledge of subtraction facts for two quantities between 1-18, using the Subtraction Charts.	●		●	●	R					70
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 3	Negative Snake Game	Demonstrates knowledge of subtraction facts for two quantities between 1-18, using the Negative Snake Game.				●	●					71
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 4	Bead Bars	Determines the missing factor in a simple subtraction equation that is written, using the Bead Bars: $15 - \underline{\quad} = 8$.				●	●					72
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 5	Abstraction - could be demonstrated by using Stamp Game, Golden Beads and the like, or pencil and paper	Identifies the missing factor in a simple subtraction equation abstractly.				●	●					73
Mathematics	The Passage To Abstraction: Subtraction: 1	Abstraction - could be demonstrated by using Stamp Game, Golden Beads and the like, or pencil and paper	Solves a written subtraction problem without the use of any concrete manipulative learning materials - numbers up to four digits.					●	●				74
Mathematics	The Passage To Abstraction: Subtraction: 2	Abstraction: Pencil and Paper	Solves a written subtraction problem without the use of any concrete manipulative learning materials - numbers up to seven digits.					●	●				75
Mathematics	Math Operations: Multiplication: 1	Golden Bead Materials	Multiplies a quantity using a single-digit multiplier, using the Golden Beads.	●		●	R						76
Mathematics	Math Operations: Multiplication: 2	Stamp Game	Multiplies a quantity using a single-digit multiplier, using the Stamp Game.	●		●	●	●					77

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Mathematics	Math Operations: Multiplication: 3	Small Bead Frame	Multiplies a quantity using a single-digit multiplier, using the Small Bead Frame.				●	●					78
Mathematics	Math Operations: Multiplication: 4	Large Bead Frame	Multiplies a quantity using a single-digit multiplier using the Large Bead Frame.				●	●					79
Mathematics	Math Operations: Multiplication: 5	Golden Bead Materials	Multiplies a seven-digit number by a single-digit multiplier, using the Golden Beads.				●	R					80
Mathematics	Math Operations: Multiplication: 6	Peg Board	Multiplies a seven-digit number by a single-digit multiplier, using the Peg Board.					●	●				81
Mathematics	Math Operations: Multiplication: 7	Multiplication Checkerboard	Multiplies a seven-digit number by a single-digit multiplier, using the Multiplication Checkerboard.					●	●	R			82
Mathematics	Math Operations: Multiplication: 8	Flat Bead Frame	Multiplies a seven-digit number by a single-digit multiplier using the Flat Bead Frame.					●	●	R			83
Mathematics	Math Operations: Multiplication: 9	Golden Bead Materials	Multiplies a seven-digit number by a two-digit multiplier, using the Golden Beads.					●	R				84
Mathematics	Math Operations: Multiplication: 10	Stamp Game	Multiplies a seven-digit number by a two-digit multiplier, using the Stamp Game.						●	R			85
Mathematics	Math Operations: Multiplication: 11	Peg Board	Multiplies a seven-digit number by a two-digit multiplier, using the Peg Board.						●	R			86
Mathematics	Math Operations: Multiplication: 12	Large Bead Frame	Multiplies a seven-digit number by a two-digit multiplier, using the Large Bead Frame.						●	R			87
Mathematics	Math Operations: Multiplication: 13	Multiplication Checkerboard	Multiplies a seven-digit number by a two-digit multiplier, using the Multiplication Checkerboard.						●	R			88
Mathematics	Math Operations: Multiplication: 14	Flat Bead Frame	Multiplies a seven-digit number by a two-digit multiplier, using the Flat Bead Frame.						●	R			89
Mathematics	Math Operations: Multiplication: 15	Junior Bank Game	Demonstrates a knowledge of multiplication using the Junior Bank Game.						●	●	R		90

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Mathematics	Math Operations: Multiplication: 16	Abstraction - could be demonstrated by using Stamp Game, Bead Frames, Peg Board, Checkerboard, and the like	Solves a written multiplication problem using multi-digit multipliers, with the use of concrete materials.						●	R			91
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 1	Bead Chains	Demonstrates a knowledge of multiplication facts using the Bead Chains.				●	●	●	R			92
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 2	Bead Bars	Demonstrates a knowledge of multiplication facts using the Bead Bars.				●	●	●	R			93
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 3	Multiplication Charts	Demonstrates a knowledge of multiplication facts using the Multiplication Charts.					●	●	R			94
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 4	Decanomial	Demonstrates a knowledge of multiplication facts by working with the Decanomial.					●	●	R			95
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 1	Bead Bars	Identifies the missing factor in a simple equation using the Bead Bars.						●	R			96
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 2	Card Sets	Identifies the missing factor in a simple equation using Card Sets.						●	R			97
Mathematics	The Passage to Abstraction: Multiplication: 1	Abstraction: Pencil and Paper	Solves a written multiplication problem by multiplying numbers up to four digits by a single-digit multiplier.						●	●			98
Mathematics	The Passage to Abstraction: Multiplication: 2	Abstraction: Pencil and Paper	Solves a written multiplication problem by multiplying numbers up to seven digits by a single-digit multiplier.						●	●			99
Mathematics	The Passage to Abstraction: Multiplication: 3	Abstraction: Pencil and Paper	Solves a written multiplication problem by multiplying numbers up to seven digits by a two-digit multiplier.						●	●	●		100
Mathematics	The Passage to Abstraction: Multiplication: 4	Abstraction: Pencil and Paper	Solves a written multiplication problem by multiplying large quantities by multi-digit multipliers.						●	●	●	R	101

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Mathematics	Math Operations: Division	Golden Bead Materials	Divides a four-digit number by a single-digit divisor, with no remainder, using the Golden Beads.				●	R					102
Mathematics	Math Operations: Division	Stamp Game	Divides a four-digit number by a single-digit divisor, with no remainder, using the Stamp Game.				●	●					103
Mathematics	Math Operations: Division	Golden Bead Materials	Divides a four-digit number by a single-digit divisor, with a remainder, using the Golden Beads.				●	●					104
Mathematics	Math Operations: Division	Stamp Game	Divides a four-digit number by a single-digit divisor, with a remainder, using the Stamp Game.				●	●	R				105
Mathematics	Math Operations: Division	Peg Board	Divides a four-digit number by a single-digit divisor, with a remainder, using the Peg Board.					●	●	R			106
Mathematics	Math Operations: Division	Test Tubes/ Rack & Tubes	Divides a four-digit number by a single-digit divisor, with a remainder, using the Long Division Test Tube material.					●	●	R			107
Mathematics	Math Operations: Division	Stamp Game	Divides a seven-digit number by a single-digit divisor, with or without a remainder, using the Stamp Game.					●	●	R			108
Mathematics	Math Operations: Division	Peg Board	Divides a seven-digit number by a single-digit divisor, with a remainder, using the Peg Board.					●	●	R			109
Mathematics	Math Operations: Division	Test Tubes/ Rack & Tubes	Divides a seven-digit number by a single-digit divisor, with a remainder, using the Long Division Test Tube material.					●	●	R			110
Mathematics	Math Operations: Division	Stamp Game	Divides a seven-digit number by a two-digit divisor, with or without a remainder, using the Stamp Game.					●	●	R			111
Mathematics	Math Operations: Division	Peg Board	Divides a seven-digit number by a two-digit divisor, with or without a remainder, using the Peg Board.					●	●	R			112
Mathematics	Math Operations: Division	Test Tubes/ Rack & Tubes	Divides a seven-digit number by a two-digit divisor, with a remainder, using the Long Division Test Tube material.						●	●	R		113
Mathematics	Math Operations: Division	Stamp Game	Divides a seven-digit number by a three- or four-digit divisor, with or without a remainder, using the Stamp Game.						●	●	R		114

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Mathematics	Math Operations: Division	Peg Board	Divides a seven-digit number by a three- or four-digit divisor, with or without a remainder, using the Peg Board.						●	●	R		115
Mathematics	Math Operations: Division	Test Tubes/ Rack & Tubes	Divides a seven-digit number by a three- or four-digit divisor, with a remainder, using the Long Division Test Tube materials.						●	●	●	R	116
Mathematics	Exercises Leading to the Memorization of Math Facts: Division: 1	Bead Bars	Demonstrates a knowledge of division facts with divisors of 1 -10 using the Bead Bars.					●	●	●	R	R	117
Mathematics	Exercises Leading to the Memorization of Math Facts: Division: 2	Division Board Charts	Demonstrates a knowledge of division facts with divisors of 1-9 using the Division Board Charts.						●	●	R	R	118
Mathematics	Exercises Leading to the Memorization of Math Facts: Division: 3	Unit Division Board	Demonstrates a knowledge of division facts with divisors of 1-9 using the Unit Division Board.						●	●	R	R	119
Mathematics	Exercises Leading to the Memorization of Math Facts: Division: 4	Card Sets	Identifies the missing factor in a simple equation using Card Sets.						●	●	●	R	120
Mathematics	The Passage to Abstraction: Division: 1	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to four digits, divided by a single-digit divisor, with no remainder.						●	●	R		121
Mathematics	The Passage to Abstraction: Division: 2	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to four digits divided by a single-digit divisor, with a remainder.						●	●	R		122
Mathematics	The Passage to Abstraction: Division: 3	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to seven digits, divided by a single-digit divisor, with or without a remainder.						●	●	R		123
Mathematics	The Passage to Abstraction: Division: 4	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to seven digits divided by a two-digit divisor, with or without a remainder.						●	●	●	R	124
Mathematics	The Passage to Abstraction: Division: 5	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to seven digits divided by a three- or four-digit divisor, with or without a remainder.						●	●	●	R	125
Mathematics	Exercises Leading to the Understanding of Multiples: 1	Bead Chains	Recognizes common numerals between two different bead chains and is able to develop a definition for multiples.						●	●	R		126

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Exercises Leading to the Understanding of Multiples: 2	Peg Board	Recognizes common numerals after constructing multiples on the Peg Board.						●	●	R		127
Mathematics	Exercises Leading to the Understanding of Multiples: 3	Peg Board	Constructs multiples on the Peg Board and identifies at which number they meet.						●	●	R		128
Mathematics	Exercises Leading to the Understanding of Multiples: 4	Multiples Chart Bead Stair	Identifies common multiples on the Multiples Chart, using the colored pencils, which coordinate with the colors of the Bead Stair.						●	●	R		129
Mathematics	Exercises Leading to the Understanding of Multiples: 5	Peg Board, Multiples Chart	Identifies and describes what a multiple is and what the LCM (lowest common multiple) is when comparing numerals.						●	●	R		130
Mathematics	Exercises Leading to the Understanding of Factors: 1	Peg Board	Explores all the ways to make two different numerals.						●	●	R		131
Mathematics	Exercises Leading to the Understanding of Factors: 1	Peg Board	Explores all the ways to make two different numerals and can identify the GCF (greatest common factor) of both numerals.						●	●	R		132
Mathematics	Exercises Leading to the Understanding of Prime Numbers: 1	Sieve of Eratosthenes	Recognizes and identifies the Prime Numbers below 100 using the Sieve of Eratosthenes.						●	●	●	●	133
Mathematics	Exercises Leading to the Understanding of Prime Numbers: 2	Abstraction: Pencil and Paper	Creates a factor tree and identifies the prime factors within the factor tree.						●	●	●	●	134
Mathematics	Exercises Leading to the Understanding of Prime Numbers: 3	Abstraction: Pencil and Paper	Creates a factor tree, identifies the prime factors within the factor tree, and writes these factors in exponential notation.						●	●	●	●	135
Mathematics	Exercises Leading to the Understanding of Prime Numbers: 4	Abstraction: Pencil and Paper	Creates a factor tree, identifies the prime factors within the factor tree, and uses these to identify the LCM of two numerals.						●	●	●	R	136
Mathematics	Divisibility	Abstraction: Pencil and Paper	Works with and understands the rules of divisibility for 2's, 5's, and 10's.						●	●	●	R	137
Mathematics	Divisibility	Abstraction: Pencil and Paper	Works with and understands the rules of divisibility for 4's, 3's, 6's, and 9's.						●	●	●	R	138

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Exercises Leading to the Understanding of Fractions: 1	Fraction Circles and Symbols	Recognizes fractions using Fraction Circles and Symbols.										139
Mathematics	Exercises Leading to the Understanding of Fractions: 2	Concrete materials such as pizzas, chocolate bars, and the like	Recognizes fractions using concrete materials other than the Fraction Circles and Symbols.										140
Mathematics	Exercises Leading to the Understanding of Fractions: 3	Fraction Circles	Recognizes equivalent fractions equaling one whole, using the Fraction Circles.										141
Mathematics	Exercises Leading to the Understanding of Fractions: 4	Fraction Circle Box	Recognizes equivalent fractions equaling one whole, using the labeled fraction pieces in the Fraction Circle Box.										142
Mathematics	Exercises Leading to the Understanding of Fractions: 5	Fraction Circle Box	Recognizes equivalent fractions equaling different amounts, using the labeled fraction pieces in the Fraction Circle Box.										143
Mathematics	Exercises Leading to the Understanding of Fractions: 6	Fraction Circle Box and Task Cards	Recognizes, matches, and labels equivalent fractions using concrete material, while following commands from Task Cards.										144
Mathematics	Exercises Leading to the Understanding of Fractions: 7	Fraction Circle Box/Pencil and Paper	Identifies different ways to write the numeral 1 in fraction format, using the fraction pieces in the Fraction Circle Box.										145
Mathematics	Exercises Leading to the Understanding of Fractions: 8	Fraction Circle Box/Pencil and Paper	Identifies the numerator and denominator of a fraction.										146
Mathematics	Exercises Leading to the Understanding of Fractions: 9	Abstraction: Pencil and paper & Mortenson Fraction Materials™, if available	Identifies that the numeral 1, written in fraction format (the Multiplicative Identity), is used to form equivalent fractions abstractly.										147
Mathematics	Exercises Leading to the Understanding of Fractions: 10	Abstraction: Pencil and Paper	Formulates the rule for finding equivalencies abstractly and is able to find equivalent fractions abstractly.										148
Mathematics	Exercises Leading to the Understanding of Fractions: 11	Abstraction: Pencil and Paper & Mortenson Fraction Materials™, if available	Identifies that equivalent fractions can be reduced using the Multiplicative Identity.										149
Mathematics	Exercises Leading to the Understanding of Fractions: 12	Abstraction: Pencil and Paper	Formulates the rule for reducing fractions abstractly and is able to reduce fractions abstractly.										150

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Exercises Leading to the Understanding of Fractions: 13	Abstraction: Pencil and Paper	Identifies that the Multiplicative Identity needed to reduce a fraction is a common factor of the numerator and denominator of a fraction.						●	●	R	R	151
Mathematics	Exercises Leading to the Understanding of Fractions: 14	Abstraction: Pencil and Paper	Identifies that the Multiplicative Identity needed to reduce a fraction should be the GCF of the numerator and denominator of a fraction, in order to reduce the fraction completely.						●	●	R	R	152
Mathematics	Exercises Leading to the Understanding of Fractions: 15	Abstraction: Pencil and Paper & Fraction Circle Box	Identifies that when the numerator is larger than the denominator in a fraction, the denominator can divide into the numerator to simplify the number: $12/6=2$ (understanding that the fraction bar means to divide).						●	●	●	R	153
Mathematics	Exercises Leading to the Understanding of Fractions: 16	Abstraction: Pencil and Paper	Identifies that the remainder in a division problem can be expressed as a fraction, with the remainder serving as the numerator and the divisor as the denominator (understanding that the fraction bar means to divide).						●	●	●	R	154
Mathematics	Exercises Leading to the Understanding of Fractions: 17	Fraction Number Lines	Identifies and correctly places fraction labels onto a Number Line.						●	●	●	R	155
Mathematics	Fraction Operations: Common Denominator: 1	Fraction Circles	Adds fractions that share a common denominator, using the Fraction Circles.	●	●	●	●	●					156
Mathematics	Fraction Operations: Common Denominator: 2	Fraction Circle Box	Adds fractions that share a common denominator, using the fraction pieces from the Fraction Circle Box.			●	●	R					157
Mathematics	Fraction Operations: Common Denominator: 3	Abstraction: Pencil and Paper	Adds fractions that share a common denominator abstractly.						●	R			158
Mathematics	Fraction Operations: Common Denominator: 4	Fraction Circles	Subtracts fractions that share a common denominator, using the Fraction Circles.			●	●	R					159
Mathematics	Fraction Operations: Common Denominator: 5	Fraction Circle Box	Subtracts fractions that share a common denominator, using the fraction pieces from the Fraction Circle Box.					●	R				160

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fraction Operations: Common Denominator: 6	Abstraction: Pencil and Paper	Subtracts fractions that share a common denominator abstractly.						●	R			161
Mathematics	Fraction Operations: Unlike Denominator: 1	Fraction Circle Box	Adds fractions that have unlike denominators, using the fraction pieces from the Fraction Circle Box.						●	●	R		162
Mathematics	Fraction Operations: Unlike Denominator: 2	Abstraction: Pencil and Paper	Adds fractions that have unlike denominators, finding the LCM of the denominators and working abstractly.						●	●	R		163
Mathematics	Fraction Operations: Unlike Denominator: 3	Abstraction: Pencil and Paper	Adds fractions that have unlike denominators, finding the LCM of the denominators AND reducing the answer into the simplest terms.						●	●	R		164
Mathematics	Fraction Operations: Unlike Denominator: 4	Fraction Circle Box	Subtracts fractions that have unlike denominators, using the fraction pieces from the Fraction Circle Box.						●	●	R		165
Mathematics	Fraction Operations: Unlike Denominator: 5	Abstraction: Pencil and Paper	Subtracts fractions that have unlike denominators, finding the LCM of the denominators and working abstractly.						●	●	R		166
Mathematics	Fraction Operations: Unlike Denominator: 6	Abstraction: Pencil and Paper	Subtracts fractions that have unlike denominators, finding the LCM of the denominators and reducing the answer into the simplest terms.						●	●	R		167
Mathematics	Fraction Operations: Multiplication: 1	Fraction Circle Box	Multiplies simple fractions by a whole number, using the fraction pieces in the Fraction Circle Box.						●	●	●	R	168
Mathematics	Fraction Operations: Multiplication: 2	Abstraction: Pencil and Paper	Multiplies simple fractions by a whole number by converting the whole number to a fraction and working abstractly.						●	●	●	R	169
Mathematics	Fraction Operations: Multiplication: 3	Abstraction: Pencil and Paper & Mortenson Fraction Materials™, if available	Multiplies two simple fractions understanding that “of” means multiplication.						●	●	●	R	170
Mathematics	Fraction Operations: Multiplication: 4	Abstraction: Pencil and Paper	Multiplies two simple fractions abstractly and reduces the answer into simplest terms.								●	●	171
Mathematics	Fraction Operations: Multiplication: 5	Abstraction: Pencil and Paper	Multiplies two simple fractions abstractly and cross-factors to simplify the process.								●	●	172

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fraction Operations: Division: 1	Fraction Circle Box & Skittles	Divides simple fractions by a whole number, using the fraction pieces in the Fraction Circle Box and Skittles.								●	●	173
Mathematics	Fraction Operations: Division: 2	Abstraction: Pencil and Paper	Divides simple fractions by a whole number, converting the whole number to a fraction and working abstractly.								●	●	174
Mathematics	Fraction Operations: Division: 3	Fraction Circle Box & Fraction Skittles	Divides two simple fractions, using the Fraction Pieces and Fraction Skittles, understanding that the answer will be what one whole person gets.								●	●	175
Mathematics	Fraction Operations: Division: 4	Abstraction: Pencil and Paper	Divides two simple fractions and recognizes that there is a pattern that involves multiplying by the inverse.								●	●	176
Mathematics	Fraction Operations: Division: 5	Abstraction: Pencil and Paper	Divides two simple fractions abstractly by multiplying by the inverse and cross- factoring as needed.								●	●	177
Mathematics	Fraction Operations: Mixed Number: 1	Fraction Circle Box	Adds two mixed-number fractions (with like or unlike denominators), using the fractions from the Fraction Circle Box.								●	●	178
Mathematics	Fraction Operations: Mixed Number: 2	Abstraction: Pencil and Paper & Fraction Circle Box	Adds two mixed-number fractions (with like or unlike denominators), using the fractions from the Fraction Circle Box, and changes the resulting sum from an improper fraction to a mixed number if necessary.								●	●	179
Mathematics	Fraction Operations: Mixed Number: 3	Abstraction: Pencil and Paper	Adds two mixed-number fractions (with like or unlike denominators) abstractly and changes the resulting sum from an improper fraction to a mixed number if necessary.								●	●	180
Mathematics	Fraction Operations: Mixed Number: 4	Abstraction: Pencil and Paper & Fraction Circle Box	Renames the whole-number minuend and then subtracts two simple fractions abstractly.								●	●	181
Mathematics	Fraction Operations: Mixed Number: 5	Abstraction: Pencil and Paper	Subtracts a simple fraction from a mixed-number fraction (with like or unlike denominators) abstractly.								●	●	182
Mathematics	Fraction Operations: Mixed Number: 6	Abstraction: Pencil and Paper	Subtracts two mixed-number fractions (with like or unlike denominators).								●	●	183

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fraction Operations: Mixed Number: 7	Abstraction: Pencil and Paper	Multiplies a mixed-number fraction by a fraction abstractly.								●	●	184
Mathematics	Fraction Operations: Mixed Number: 8	Abstraction: Pencil and Paper	Multiplies two mixed-number fractions abstractly.								●	●	185
Mathematics	Fraction Operations: Mixed Number: 9	Abstraction: Pencil and Paper	Divides a mixed-number fraction by a fraction abstractly.								●	●	186
Mathematics	Fraction Operations: Mixed Number: 10	Abstraction: Pencil and Paper	Divides two mixed-number fractions abstractly.								●	●	187
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Decimal Fraction Box, Decimal Fraction Board, 1/10th Fraction pieces, Montessori Centesimal Circle, Whole # Cards from Bank Game	Is able to recognize Numeral Cards and place specific quantities on Decimal Fraction Hierarchy Board when teacher guide or fellow student forms numerals up to 999,999.						●	●	●	R	188
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Abstraction: Pencil and Paper & Numerals and Hierarchy Board	Is able to write a quantity as both a fraction and decimal fraction when read a quantity, such as: one-hundredth and so on.						●	●	●	R	189
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Abstraction: Pencil and Paper & Numerals and Hierarchy Board	Is able to write numerals containing both whole number and decimal fractions in expanded notation, both in words and using numerals.						●	●	●	R	190
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Abstraction: Pencil and Paper	Is able to record correct numeral when given number in exponential format, such as: 1/10 to second power and so on.						●	●	●	R	191
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Hierarchy Board, Numeral Cards, and Didactic Quantities	Is able to associate from observing quantity on Hierarchy Board the correct numeral and places correct Numeral Cards with Beads/Cubes quantity.						●	●	●	R	192
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Hierarchy Board, Numeral Cards, and Didactic Quantities	Is able to form own decimal fraction numerals, lays out quantity on Hierarchy Board, and reads numeral correctly.						●	●	●	R	193

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Hierarchy Board, Numeral Cards, and Didactic Quantities	Is able to identify decimal fraction numeral given by another person, lays out quantity on Hierarchy Board, and reads numeral correctly.						●	●	●	R	194
Mathematics	Decimal Fractions Concepts: Decimal Fraction to Vulgar Fraction	Abstract: Task Cards with Written Decimal Fractions, Progressing from Tenths through Millionths	Is able to look at a written decimal fraction numeral and change into a vulgar fraction.						●	●	●	R	195
Mathematics	Decimal Fractions Concepts: Vulgar Fraction to Decimal Fraction	Abstract: Task Cards with Written Vulgar Fractions, Progressing from Tenths through Millionths	Is able to look at a written vulgar fraction quantity and convert into a decimal fraction numeral.						●	●	●	R	196
Mathematics	Decimal Fraction Concepts: Rounding	Hierarchy Board, Task Cards, Abstract Pencil and Paper	Is able to round decimal fractions to the nearer one (whole number) using the Hierarchy Board.						●	●	●	●	197
Mathematics	Decimal Fraction Concepts: Rounding	Abstraction: Pencil and Paper	Is able to round decimal fractions to the nearer one without using the Hierarchy Board.								●	●	198
Mathematics	Decimal Fraction Concepts: Rounding	Abstraction: Pencil and Paper	Is able to round numbers, including decimal fraction place values to the nearer tenth and hundredth.								●	●	199
Mathematics	Decimal Fraction Concepts: Rounding	Abstraction: Pencil and Paper	Is able to round numbers, including decimal fraction place values to the nearer thousandth, ten thousandth, and hundred thousandth.								●	●	200
Mathematics	Decimal Fraction Concepts: Rounding	Abstraction: Pencil and Paper	Is able to round numbers, including decimal fraction place values, to the nearer millionth.								●	●	201
Mathematics	Decimal Fraction Operations: Addition: 1	Hierarchy Board, Numeral Cards and Didactic Quantities	Is able to place quantities on Hierarchy Board, add, and record sum.						●	●	●		202
Mathematics	Decimal Fraction Operations: Addition: 2	Abstraction: Pencil and Paper	Is able to add numbers containing decimal fractions abstractly (both static and dynamic addition).						●	●	●		203
Mathematics	Decimal Fraction Operations: Subtraction: 1	Hierarchy Board, Numeral Cards and Didactic Quantities	Is able to place quantities on Hierarchy Board, subtract, and record the difference.						●	●	●		204

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal Fraction Operations: Subtraction: 2	Abstraction: Pencil and Paper	Is able to subtract numbers containing decimal fractions abstractly (both static and dynamic subtraction).						●	●	●		205
Mathematics	Decimal Fraction Operations: Multiplication: 1	Hierarchy Board, Numeral Cards and Didactic Quantities	Is able to recognize the commutative property of multiplication when multiplying quantities on the Hierarchy Board, such as: 10×0.2 and 0.2×10 .						●	●	●	R	206
Mathematics	Decimal Fraction Operations: Multiplication: 1	Hierarchy Board, Numeral Cards and Didactic Quantities	Is able to multiply decimal fraction quantities by whole numbers.						●	●	R		207
Mathematics	Decimal Fraction Operations: Multiplication: 2	Abstraction: Pencil and Paper	Is able to multiply numbers with a decimal fraction multiplicand and whole number multiplier abstractly.						●	●	●	R	208
Mathematics	Decimal Fraction Operations: Multiplication: 3	Decimal Fraction Checkerboard	Is able to use the Decimal Fraction Checkerboard to multiply by a multiplier that has a value in tenths.								●	●	209
Mathematics	Decimal Fraction Operations: Multiplication: 3	Decimal Fraction Checkerboard	Is able to use the Decimal Fraction Checkerboard to multiply by a multiplier that has a value in hundredths.								●	●	210
Mathematics	Decimal Fraction Operations: Multiplication: 3	Decimal Fraction Checkerboard	Is able to use the Decimal Fraction Checkerboard to multiply by a multiplier that has a value that includes a whole number and decimal fraction.								●	●	211
Mathematics	Decimal Fraction Operations: Multiplication	Abstraction: Pencil and Paper	Is able to multiply any number by a decimal fraction or mixed-number decimal-fraction multiplier abstractly.								●	●	212
Mathematics	Decimal Fraction Operations: Division: 1	Hierarchy Board, Numeral Cards, Didactic Quantities, and Skittles	Is able to use the Hierarchy Board and materials to divide a decimal fraction dividend by a single-digit whole-number divisor.									●	213
Mathematics	Decimal Fraction Operations: Division: 2	Hierarchy Board, Numeral Cards, Didactic Quantities, and Skittles	Is able to use the Hierarchy Board and materials to divide a decimal fraction dividend by a double-digit whole-number divisor.									●	214
Mathematics	Decimal Fraction Operations: Division: 3	Abstraction: Pencil and Paper	Is able to divide a decimal-fraction number by a whole-number divisor abstractly.									●	215
Mathematics	Decimal Fraction Operations: Division: 4	Hierarchy Board, Numeral Cards, Didactic Quantities, and Skittles	Is able to use the Hierarchy Board and materials to divide a decimal fraction dividend by a decimal-fraction divisor.									●	216

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

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Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal Fraction Operations: Division: 5	Abstraction: Pencil and Paper	Is able to divide a decimal-fraction number by a decimal-fraction divisor abstractly.									●	217
Mathematics	Ratio Concepts: 1	Abstraction: Pencil and Paper	Is able to understand that a ratio may show a rate and can be written in two ways: either as a fraction or as two numbers separated by a colon and is read with the word 'to.'									●	218
Mathematics	Ratio Concepts: 1	Abstraction: Pencil and Paper	Is able to read a rate and write it in both ratio formats and is able to read the ratio correctly.									●	219
Mathematics	Ratio Concepts: 2	Abstraction: Pencil and Paper	Is able to understand that a ratio may compare to quantities and is able to create this scenario, write the comparison in both ratio formats, and is able to read the ratio.									●	220
Mathematics	Ratio Concepts: 3	Abstraction: Pencil and Paper	Is able to identify equal ratios and find equivalent ratios, multiplying by the Multiplicative Identity.									●	221
Mathematics	Ratio Concepts: 3	Abstraction: Pencil and Paper	Is able to find equal ratios by dividing by the Multiplicative Identity.									●	222
Mathematics	Cross Products	Abstraction: Pencil and Paper	Is able to ascertain whether or not cardinal number ratios are equivalent by using cross products: $a/b=c/d$; then $ad=bc$.									●	223
Mathematics	Cross Products	Abstraction: Pencil and Paper	Is able to ascertain whether ratios containing fractions and/or decimal fractions are equivalent.									●	224
Mathematics	Cross Products	Abstraction: Pencil and Paper	Is able to find either the missing numerator or denominator in a sequence of equivalent ratios.									●	225
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to understand that a proportion is a statement of equality between ratios.									●	226
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to identify proportions, reads appropriately, and identifies the means and extremes terms.									●	227
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to determine if a proportion is true by using the means extremes property (cross products).									●	228

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to determine if a proportion, written in fraction terms, is true.									●	229
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to determine if a proportion, written in decimal-fraction format, is true.									●	230
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to determine whether a true proportion can be set up, working from a word problem.									●	231
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to find the unknown terms in a proportion, using the means extremes property.									●	232
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to complete a scale drawing, using knowledge of proportion and the means extremes property.									●	233
Mathematics	Percentages: 1	Abstraction: Pencil and Paper	Understands that a ratio that has a second term of 100 is called a 'percent.'									●	234
Mathematics	Percentages: 1	Abstraction: Pencil and Paper	Expresses ratios in percent terms.									●	235
Mathematics	Percentages: 1	Abstraction: Pencil and Paper	Is able to express commonly used ratios, such as: 1/3; 1/4; 4/5; 1/6; 3/8; 3/4; 7/8; 1/10; 1/20; and 1/5 in percent terms.									●	236
Mathematics	Percentages: 2	Abstraction: Pencil and Paper	Is able to express a decimal fraction in percent terms.									●	237
Mathematics	Percentages: 2	Abstraction: Pencil and Paper	Is able to express a fraction in both decimal fraction and percent terms.									●	238
Mathematics	Percentages: 2	Abstraction: Pencil and Paper	Is able to express a decimal fraction in both ratio and percent terms.									●	239
Mathematics	Percentages: 2	Abstraction: Pencil and Paper	Is able to express a percent as a decimal fraction.									●	240
Mathematics	Working with Money: 1	Coins and Bills Reflecting Specific Currency	Identifies and names units of currency.	●	●	●	●	R					241

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Working with Money: 1	Coins and Bills Reflecting Specific Currency	Is able to count units of currency.		●	●	●	●	R				242
Mathematics	Working with Money: 1	Coins and Bills Reflecting Specific Currency	Is able to make change with money.		●	●	●	●	R				243
Mathematics	Working with Money: 2	Abstraction: Pencil and Paper	Calculates simple interest on a loan or savings account.									●	244
Mathematics	Working with Money: 2	Abstraction: Pencil and Paper	Converts US currency into a given foreign currency and vice versa.									●	245
Mathematics	Measurement: Length: 1	Straight Edge with Demarcations in Imperial or Metric Measurements	Is able to recognize units of measure on a straight edge.		●	●	●	●	●	●	R		246
Mathematics	Measurement: Length: 1	Straight Edge with Demarcations in Imperial or Metric Measurements	Is able to use a straight edge to determine the length of various objects.					●	●	●	●	R	247
Mathematics	Measurement: Length: 1	Straight Edge with Demarcations in Imperial or Metric Measurements	Is able to round to the nearer unit when using a straight edge to measure various objects.						●	●	●	●	248
Mathematics	Measurement: Length: 2	Abstraction: Pencil and Paper and Straight Edge As Needed	Solves word problems relating to measurement of length.						●	●	●	●	249
Mathematics	Measurement: Length: 2	Abstraction: Pencil and Paper	Is able to convert between imperial and metric measurement using a conversion table.									●	250
Mathematics	Measurement: Weight: 1	Instruments of Measure Used to Determine Weight in Imperial or Metric Units of Measure	Is able to recognize units of measure on Balance Scale or the like.				●	●	●	●	●	R	251
Mathematics	Measurement: Weight: 1	Instruments of Measure Used to Determine Weight in Imperial or Metric Units of Measure	Is able to use a variety of instruments of measure to determine the weight of various objects.					●	●	●	●	R	252
Mathematics	Measurement: Weight: 2	Abstraction: Pencil and Paper and Instrument of Measure as Needed	Solves word problems relating to weight measurement.						●	●	●	●	253

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Measurement: Weight: 2	Abstraction: Pencil and Paper	Is able to convert between imperial and metric measurement using a conversion table.										● 254
Mathematics	Measurement: Volume: 1	Instruments of Measure used to Determine Volume in Imperial or Metric Units of Measure	Is able to recognize units of measure on containers used to determine volume.						●	●	●	●	● 255
Mathematics	Measurement: Volume: 1	Instruments of Measure used to Determine Volume in Imperial or Metric Units of Measure	Is able to use beakers and containers, used for measuring volume, to determine volume.						●	●	●	●	256
Mathematics	Measurement: Volume: 2	Instruments of Measure used to Determine Volume in Imperial or Metric Units of Measure	Is able to apply knowledge of volume in practical applications, such as cooking, science, and the like.						●	●	●	●	257
Mathematics	Measurement: Volume: 2	Instruments of Measure used to Determine Volume in Imperial or Metric Units of Measure and Abstraction: Pencil and Paper	Solves word problems relating to volumic measurement.									●	● 258
Mathematics	Measurement: Volume: 2	Abstraction: Pencil and Paper	Is able to convert between imperial and metric measurement using a conversion table.										● 259
Mathematics	Measurement: Thermic: 1	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure	Is able to recognize units of measure on a thermometer.									●	● 260
Mathematics	Measurement: Thermic: 1	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure	Is able to use a thermometer to measure temperature.									●	● 261
Mathematics	Measurement: Thermic: 1	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure and Abstraction: Paper and Pencil	Is able to apply knowledge of thermic measurement in practical applications, such as science, cooking, and the like.									●	● 262

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Measurement: Thermic: 2	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure and Abstraction: Paper and Pencil	Solves word problems relating to thermic measurement.								●	●	263
Mathematics	Measurement: Thermic: 2	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure and Abstraction: Paper and Pencil	Is able to convert between imperial and metric measurement using a conversion table.									●	264
Mathematics	Graphs: 1	Various types of Graphs, Such As: Picture Gaphs, Circle Graphs (Pie Charts), Bar graphs, Line Graphs and Scatter Distributions	Reads graphs and draws conclusions and inferences from the graphically displayed information.				●	●	●	●	●	●	265
Mathematics	Graphs: 2	Various types of Graphs, Such As: Picture Gaphs, Circle Graphs (Pie Charts), Bar graphs, Line Graphs and Scatter Distributions	Prepares various graphs from written data.								●	●	266
Mathematics	Graphs: 3	Pie Charts	Understands and can prepare pie charts (circle graphs) using percents.									●	267
Mathematics	Graphs: 4	Various types of Graphs, Such As: Picture Gaphs, Circle Graphs (Pie Charts), Bar graphs, Line Graphs and Scatter Distributions	Redraws graphs using a different scale.									●	268
Mathematics	Graphs: 5	Data Information, Abstraction: Paper and Pencil, Tables	Is able to use information to tabulate data.									●	269
Mathematics	Graphs: 6	Coordinate Graphs	Understands the values within the quadrants in coordinate graphs.						●	●	●	●	270

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Graphs: 6	Coordinate Graphs	Is able to follow coordinate directions to complete a picture made by coordinates.						●	●	●	●	271
Mathematics	Graphs: 6	Coordinate Graphs	Identifies the location of a given ordered pair on a grid.								●	●	272
Mathematics	Graphs: 6	Coordinate Graphs	Is able to identify an ordered pair when given a location on a grid.								●	●	273
Mathematics	Graphs: 6	Coordinate Graphs	Locates points for given coordinates and names the coordinates of a given point in any of the four quadrants.									●	274
Mathematics	Probability	Various Teacher-Made Materials and Preferably a Kit with Dice, Pinners and Didactic Materials	Understands that in mathematics many predications can be made and are determined by data collected in a variety of ways; the lesson difficulties will progress each year.				●	●	●	●	●	●	275
Mathematics	Statistics: 1	Materials that Can Be Used to Show Averages	Is able to find the average between a set of numbers concretely.				●	●	●	R			276
Mathematics	Statistics: 1	Abstraction: Paper and Pencil	Is able to find the average of a set of numbers abstractly.						●	●	●	●	277
Mathematics	Statistics: 2	Data Information, Abstraction: Paper and Pencil	Understands the terms: <i>mean, mode, median</i> .								●	●	278
Mathematics	Statistics: 2	Abstraction: Paper and Pencil	Determines the mean for given data.								●	●	279
Mathematics	Statistics: 2	Abstraction: Paper and Pencil	Identifies the mean on a graph.								●	●	280
Mathematics	Statistics: 3	Abstraction: Paper and Pencil	Determines the mode for given data.								●	●	281
Mathematics	Statistics: 3	Abstraction: Paper and Pencil	Identifies the mode on a graph.								●	●	282
Mathematics	Statistics: 4	Abstraction: Pencil and Paper	Determines the median for given data.								●	●	283

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Statistics: 4	Abstraction: Paper and Pencil	Identifies the median on a distribution table.								●	●	284
Mathematics	Statistics: 5	Abstraction: Paper and Pencil	Constructs a frequency table.									●	285
Mathematics	Inequalities: 1	Abstraction: Paper and Pencil	Is familiar with the relationships between simple quantities of equal value: Equal To (=).					●	●	●	●	R	286
Mathematics	Inequalities: 1	Abstraction: Paper and Pencil	Is familiar with the relationships between simple quantities where one is greater than the other: Greater Than (>).					●	●	●	●	R	287
Mathematics	Inequalities: 1	Abstraction: Paper and Pencil	Is familiar with the relationships between simple quantities where one is less than the other: Less Than (<).			●	●	●	●	●	●	R	288
Mathematics	Inequalities: 2	Abstraction: Paper and Pencil	Is familiar and works with equal relationships between quantities involving multiple operations: $3 \times 2 = 3 + 3$.						●	●	●	R	289
Mathematics	Inequalities: 2	Abstraction: Paper and Pencil	Is familiar and works with relationships between quantities involving multiple operations, where one is greater than the other: $3 \times 4 > 3 + 4$.						●	●	●	R	290
Mathematics	Inequalities: 2	Abstraction: Paper and Pencil	Is familiar and works with relationships between quantities involving multiple operations, where one is less than the other: $2 \times 5 < 9 - 5$.						●	●	●	R	291
Mathematics	Negative Numbers: 1	Negative Snake Game	Is able to work concretely with the Negative Snake Game in working with negative numbers.						●	●	●		292
Mathematics	Negative Numbers: 2	Number Line with Positive and Negative Numbers in Numerical Order	Is able to recognize unsigned numbers represent positive numbers and that negative numbers are to the left of zero on the number line.								●	●	293
Mathematics	Negative Numbers: 2	Number Line with Positive and Negative Numbers in Numerical Order	Is able to determine that the same count is used when determining the distance for opposite pairs of numbers to zero: both numbers are equidistant to zero (absolute value).								●	●	294

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Negative Numbers: 3	Number Line with Positive and Negative Numbers in Numerical Order and Abstraction: Paper and Pencil	Is able to name additive inverses for positive and negative numbers.								●	●	295
Mathematics	Negative Numbers: 4	Abstraction: Paper and Pencil	Is able to add and subtract positive and negative numbers.								●	●	296
Mathematics	Negative Numbers: 4	Abstraction: Paper and Pencil	Is able to multiply positive and negative numbers.									●	297
Mathematics	Negative Numbers: 5	Abstraction: Paper and Pencil	Is able to name reciprocals for positive and negative numbers.									●	298
Mathematics	Negative Numbers: 5	Abstraction: Paper and Pencil	Is able to divide positive and negative numbers.									●	299
Mathematics	Negative Numbers: 6	Abstraction: Paper and Pencil	Simplifies expressions using two or more operations and positive and negative numbers.									●	300
Mathematics	Negative Numbers: 7	Abstraction: Pencil and Paper	Recognizes how a negative exponent effects the value of a number.									●	301
Mathematics	Negative Numbers: 7	Abstraction: Pencil and Paper	Is able to solve equations that use exponents with positive and negative values.									●	302
Mathematics	Squaring of Numbers: 1	Bead Chains/Cabinet	Is able to recognize that any number to the second power makes a square using the Bead Chains.						●	●	R		303
Mathematics	Squaring of Numbers: 1	Bead Bars	Is able to create squares using the Bead Bars.						●	●	R		304
Mathematics	Squaring of Numbers: 2	Peg Board	Is able to create squares of numbers on the Peg Board that have a value greater than 10.						●	●	●	R	305
Mathematics	Squaring of Numbers: 3	Montessori Square Guides and Abstraction: Paper and Pencil	Is able to calculate the square of a binomial using the Montessori Square Guides.						●	●	●	●	306
Mathematics	Squaring of Numbers: 4	Abstraction: Paper and Pencil	Is able to calculate the square of a binomial using algebraic nomenclature.								●	●	307

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Squaring of Numbers: 4	Abstraction: Paper and Pencil	Is able to calculate the square of a trinomial using algebraic nomenclature.								●	●	308
Mathematics	Cubing of Numbers: 1	Bead Chains/Cabinet	Is able to recognize that any number to the third power makes a cube.						●	●	R		309
Mathematics	Cubing of Numbers: 1	Cubing Material	Is able to recognize that any number to the third power makes a cube using the Cubing Material.						●	●	●	R	310
Mathematics	Cubing of Numbers: 2	Binomial Square Guide, Beads from Bead Cabinet and Abstraction: Paper and Pencil	Is able to calculate the cube of the binomial by using the Binomial Square Guide and Beads from the Bead Cabinet and then analyzing abstractly.								●	●	311
Mathematics	Cubing of Numbers: 2	Cubing Material and Abstraction: Paper and Pencil	Is able to build a new cube from an existing cube; for example, 4 cubed to 5 cubed, analyze the work and record the procedure.								●	●	312
Mathematics	Cubing of Numbers: 2	Binomial Cube Guide, Binomial Cube and Algebraic Formula	Is able to move from 4 cubed to 7 cubed; for example, analyzing the work using the algebraic formula.									●	313
Mathematics	Cubing of Numbers: 3	Abstraction: Paper and Pencil	Is able to calculate the Cube of the Binomial abstractly.									●	314
Mathematics	Cubing of Numbers: 3	Abstraction: Paper and Pencil	Is able to calculate the Cube of a Trinomial abstractly.									●	315
Mathematics	Square Roots: 1	Golden Beads	Is able to calculate the square root of a binomial by using the Golden Beads and reading the side of the square.								●	●	316
Mathematics	Square Roots: 1	Peg Board	Is able to read the side of a square to determine the square root when working with the Peg Board.								●	●	317
Mathematics	Square Roots: 2	Abstraction: Paper and Pencil	Is able to calculate the square roots of binomials.									●	318
Mathematics	Square Roots: 2	Abstraction: Paper and Pencil	Is able to calculate the square root of trinomials.									●	319
Mathematics	Cube Roots: 1	Cubing Material	Is able to recognize and calculate cube roots from working with the Cubing Material.									●	320

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Cube Roots: 2	Abstraction: Paper and Pencil	Is able to calculate the cube root of a binomial.										● 321
Mathematics	Cube Roots: 2	Abstraction: Paper and Pencil	Is able to calculate the cube root of a trinomial.										● 322
Mathematics	Exponents: 1	Power of Two Cube	Is able to recognize that the cube is made from 2 to the 9th power.						●	●	R	R	323
Mathematics	Exponents: 1	Bead Chains/Cabinet	Is able to recognize that the chains are powers of the specified number.						●	●	R	R	324
Mathematics	Exponents: 1	Bead Bars	Is able to recognize that the bars can form powers of the specified number.						●	●	R	R	325
Mathematics	Exponents: 2	Abstraction: Paper and Pencil	Is able to evaluate base numbers with positive and negative exponents.								●	●	326
Mathematics	Scientific Notation	Abstraction: Paper and Pencil	Converts large whole numbers to scientific notation.										● 327
Mathematics	Scientific Notation	Abstraction: Paper and Pencil	Converts very small decimal fractions to scientific notation.										● 328
Mathematics	Bases: 1	Teacher-Made Materials and Bead Bars	Is able to recognize that numbers can be worked in different bases.								●	●	329
Mathematics	Bases: 1	Teacher-Made Materials and Bead Bars	Is able to count accurately in different bases.								●	●	330
Mathematics	Bases: 2	Teacher-Made Materials and Bead Bars	Is able to add using different bases.										● 331
Mathematics	Bases: 3	Teacher-Made Materials and Bead Bars	Is able to convert from a base to base 10.										● 332
Mathematics	Irrational Numbers	Abstraction: Paper and Pencil	Recognizes and finds the value of irrational numbers such as: $\sqrt{2}$ and π .										● 333

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Order of Operations	Abstraction: Paper and Pencil	Solves equations and inequalities containing positive and negative numbers using the order of operations.								●	●	334
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to addition patterns.					●	●	●	●	●	335
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to multiplication patterns.						●	●	●	●	336
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to factors, multiples, and primes.						●	●	●	●	337
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to divisibility.						●	●	●	●	338
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to fractions.						●	●	●	●	339
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to decimal fractions.								●	●	340
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to geometry concepts.						●	●	●	●	341
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to measurement.						●	●	●	●	342
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to solve word problems relating to distance and time.						●	●	●	●	343
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of drawing a picture or diagram to solve a problem.						●	●	●	●	344
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of making an organized list to solve a problem.						●	●	●	●	345
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of making a table to solve a problem.								●	●	346

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of solving a simpler, related problem to solve a more complex problem.								●	●	347
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to find a pattern to solve a problem.						●	●	●	●	348
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the 'guess-and-check' method in order to solve a problem.						●	●	●	●	349
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of experimentation in order to solve a problem.						●	●	●	●	350
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to act out a scenario in order to solve a problem.						●	●	●	●	351
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to work backwards in order to solve a problem.								●	●	352
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to figure out and write an equation in order to solve a problem.									●	353
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to alter one's point of view or perspective in order to solve a problem.									●	354
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Introduction to recognition and nomenclature of geometric figures using the first presentation tray of geometric shapes.	●	●	R	R	R	R	R			355
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies basic geometric shapes using the shapes in the Geometric Cabinet.	●	●	R	R	R	R	R			356
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies types of triangles by their sides using the shapes in the Geometric Cabinet.	●	●	●	R	R	R	R			357
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies types of triangles by their angles (right, scalene, obtuse), using the shapes in the Geometric Cabinet.					●	●	●	R		358
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies all of the quadrilaterals using the shapes in the Geometric Cabinet.	●	●	●	R	R	R	R			359

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies irregular polygons through the decagon using the shapes in the Geometric Cabinet.		●	●	●	R	R	R	R		360
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies circles using the shapes in the Geometric Cabinet.		●	●	●	R	R	R	R		361
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies the curved-edged shapes using the shapes in the Geometric Cabinet.		●	●	●	R	R	R	R		362
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Differentiates between a circle, ellipse, and oval using the shapes in the Geometric Cabinet.		●	●	●	R	R	R	R		363
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet & Matching Card Set	Matches shapes from the Geometric Cabinet to geometric cards with completely colored interior.		●	●	●	R	R	R	R		364
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet & Matching Card Set	Matches shapes from the Geometric Cabinet to geometric cards with thick colored outline.		●	●	R						365
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet & Matching Card Set	Matches shapes from the Geometric Cabinet to geometric cards with thin colored outline.		●	●	R						366
Mathematics	Geometry: Geometric Solids	Geometric Solids	Identifies a cube, sphere, cylinder, pyramid, and cone.		●	●	●	R	R	R	R		367
Mathematics	Geometry: Geometric Solids	Geometric Solids	Identifies a rectangular prism, triangular prism, ovoid, and ellipsoid.		●	●	●	R	R	R	R		368
Mathematics	Geometry: Geometric Solids	Geometric Solids	Identifies the faces, edges, and surfaces of solid geometric objects.			I	I	●	●	●	R		369
Mathematics	Geometry: Constructive Triangle Boxes	Constructive Triangle Box	Identifies congruent, similar shapes by matching sensorially.		●	●	●	●	●	●	R		370
Mathematics	Geometry: Three Concepts: First Presentation	Fractional Equivalency Insets	Identifies fractional equivalencies in relation to plane shapes.						●	●	R		371
Mathematics	Geometry: Three Concepts: Second Presentation	Fractional Equivalency Insets	Identifies the symbols for congruency, similarity, and equivalency and the meaning of each in relation to plane shapes.						●	●	R		372

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Three Concepts: Third Presentation	Fractional Equivalency Insets, Ornamental Geometry Material, Box of Sticks	Extrapolates the concept of similarity across squares and equilateral triangles.						●	●	R		373
Mathematics	Geometry: Equivalence Games	Tangrams	Explores the concepts of congruency, similarity, and equivalence.						●	●	R		374
Mathematics	Geometry: Triangle As a Constructor	Triangle Box	Explores the reflexive, symmetric, and transitive properties.						●	●	R		375
Mathematics	Geometry: Triangle As a Constructor	Large Hexagon Box	Explores the reflexive, symmetric, and transitive properties.						●	●	R		376
Mathematics	Geometry: Triangle As a Constructor	Small Hexagon Box	Explores the reflexive, symmetric, and transitive properties.						●	●	R		377
Mathematics	Geometry: Triangle As a Constructor	Combination of All Boxes	Explores the reflexive, symmetric, and transitive properties.						●	●	●	R	378
Mathematics	Geometry: Lines	Any Material that Demonstrates Straight, Curved and Broken Lines	Identifies types of lines.	●	●	●	●	●	●	R	R	R	379
Mathematics	Geometry: Lines	Any Material that Demonstrates Point of Origin, Endpoints, Rays, Line Segments	Identifies parts of a line.				●	●	●	●	R	R	380
Mathematics	Geometry: Lines	Any Material that Demonstrates Lines Drawn at Different Angles in Space	Identifies positions of lines in space.				●	●	●	●	R	R	381
Mathematics	Geometry: Lines	Any Material that Demonstrates Lines Drawn in Relationship to Each Other	Identifies positions of lines in relation to each other.						●	●	●	R	382
Mathematics	Geometry: Nomenclature of Circles	Fraction Insets or Plastic Fractions from the Elementary Fraction Box	Identifies the parts of a circle.						●	●	●	R	383
Mathematics	Geometry: Nomenclature of Triangles	Geometric Cabinet, Rectangular Box, Triangle Box, Large Hexagon Box, Small Hexagon Box	Identifies the parts of a triangle.					●	●	●	R	R	384

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Nomenclature of Squares	Geometric Cabinet, Fractional Equivalency Insets	Identifies the parts of a square.				●	●	●	●	R	R	385
Mathematics	Geometry: Types of Angles	Fraction Pieces Used in Conjunction with the Montessori Protractor	Identifies the main types of angles.						●	●	R	R	386
Mathematics	Geometry: Types of Angles	Fraction Pieces Used in Conjunction with the Montessori Protractor and Geometric Cabinet	Identifies different angles, similarities, and congruence.						●	●	●	R	387
Mathematics	Geometry: Angles	Protractor: Use of a Montessori Protractor First, then Use of a Traditional Protractor to Measure Any Angles	Measures angles with a protractor.						●	●	●	●	388
Mathematics	Geometry: Angles	Material that demonstrates adjacent and vertical angles	Names the relationships between two angles.						●	●	R	R	389
Mathematics	Geometry: Angles	Angles measuring to 90 and 180 degrees	Identifies combinations of angles.								●	●	390
Mathematics	Geometry: Angles	Protractor: Use of a Montessori Protractor First, then Use of a Traditional Protractor to Measure Any Angles for Addition Purposes	Adds angles.								●	●	391
Mathematics	Geometry: Lines and Angles	Any Material that Demonstrates Two Parallel Lines Cut by a Transversal and the Accompanying Types of Angles and Angle Relationships	Names angles formed by two straight lines cut by a transversal.								●	●	392
Mathematics	Geometry: Angles and Plane Shapes	Materials from the Geometric Cabinet; Construction Paper, Scissors, Colored Pencils, Glue	Identifies the sum of the interior angles of a triangle or regular polygon.								●	●	393

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Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Advanced Geometry Theory	Book or Story about the History of Pythagorus - 'Rope Stretchers'	Introduction to the Pythagorean Theorem.										● 394
Mathematics	Advanced Geometry Theory	Inset 18 of the 2nd Montessori Geometry Cabinet Materials	Recognizes the isosceles right triangle case of the Pythagorean Theorem - sensorial presentation.										● 395
Mathematics	Advanced Geometry Theory	Inset 19 of the 2nd Montessori Geometry Cabinet Materials	Recognizes the arithmetical (3-4 -5) case of the Pythagorean Theorem.										● 396
Mathematics	Advanced Geometry Theory	Inset 20 of the 2nd Montessori Geometry Cabinet Materials	Understands Euclid's Solution of the Pythagorean Theorem.										● 397
Mathematics	Geometry: Construction of Various Figures	Materials that Demonstrate the Concept of Symmetry	Demonstrates line symmetry in a given shape by folding along its center line.	●	●	●	●	●	●	●	R		398
Mathematics	Geometry: Construction of Various Figures	Straight Edge, Compass	Constructs a line segment of equal lengths, using a straight edge and a compass.					●	●	●	●	R	399
Mathematics	Geometry: Construction of Various Figures	Straight Edge, Compass	Constructs an angle of a given measure with a protractor and straightedge.						●	●	●	●	400
Mathematics	Geometry: Construction of Various Figures	Compass, Fraction Pieces	Bisects an angle with a compass and straightedge.						●	●	●	●	401
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Constructs a perpendicular to a line from a point off the line.						●	●	●	●	402
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Constructs an equilateral triangle using a compass.						●	●	●	●	403
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Constructs a triangle given two sides and an angle lying between.						●	●	●	●	404
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Constructs a triangle given two angles and the side lying between.						●	●	●	●	405
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Bisects a line segment with a compass and straightedge.						●	●	●	●	406

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge, Protractor	Draws a line perpendicular to another line with a straightedge, compass, and protractor.						●	●	●	●	407
Mathematics	Geometry: Construction of Various Figures	Protractor, Straight Edge	Constructs a square with a protractor and straightedge.						●	●	●	●	408
Mathematics	Geometry: Construction of Various Figures	Compass	Constructs a circle with a compass.						●	●	●	●	409
Mathematics	Geometry: Construction of Various Figures	Straight Edge, Set Square and Compass	Constructs a scale model or drawing of an object given a scale to follow.								●	●	410
Mathematics	Geometry: Construction of Various Figures	Worksheets with Directions and Shapes for Construction	Constructs a variety of polyhedrons.						●	●	●	●	411
Mathematics	Geometry: Measurement of Perimeter	Materials from the Geometric Cabinet and Later on Polygons Found on Task Cards or in Books	Measures the perimeter of triangles, quadrilaterals, and polygons.			●	●	●	●	●	R	R	412
Mathematics	Geometry: Measurement of Parts of the Circle	Straight Edge and Possibly a Compass	Measures the radius and diameter of a circle.						●	●	●	●	413
Mathematics	Geometry: Measurement of Parts of the Circle	Montessori Protractor and Montessori Fraction Pieces	Computes arcs.								●	●	414
Mathematics	Geometry: Measurement of Parts of the Circle	Montessori Circles Found in the Geometric Cabinet and Any Other Materials that Are in the Shape of a Circle	Measures the circumference of a circle.								●	●	415
Mathematics	Geometry: Area	Montessori Rectangles Found in the Yellow Area Material and in the Geometric Cabinet	Calculates the area of a rectangle.								●	●	416
Mathematics	Geometry: Area	Montessori Yellow Area Material and Parallelograms Found in the Geometric Cabinet	Calculates the area of a parallelogram.								●	●	417

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Area	Montessori Squares Found in the Geometric Cabinet	Calculates the area of a square.								●	●	418
Mathematics	Geometry: Area	Montessori Triangles Found in the Yellow Area Material and Triangles Found in the Geometric Cabinet	Calculates the area of a triangle.								●	●	419
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of a rhombus.								●	●	420
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of a kite.								●	●	421
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of a trapezoid.								●	●	422
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of an irregular quadrilateral.								●	●	423
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of regular polygons.								●	●	424
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of any irregular polygon.								●	●	425
Mathematics	Geometry: Area	2nd Geometric Cabinet (Fraction Cabinet) Equivalent Figure material - Two Presentations To Show Two Different Ways To Obtain the Area of a Circle Formula	Calculates the area of a circle.									●	426

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Volume	Cubing Material Preferably Both the Volume Box with 250 Cubes and the Volume Box with 1000 Cubes; Other Material May Be Used To Associate with the Volume of the Pink Tower; the Five Yellow Prisms May Also Be Used; Blue Metal Volume Containers; Elementary Geometric Solids	Calculates the volume of a cube.										● 427
Mathematics	Geometry: Volume	Cubing Material Preferably Both the Volume Box with 250 Cubes and the Volume Box with 1000 Cubes; Other Material May Be Used To Associate with the Volume of the Pink Tower; the Five Yellow Prisms May Also Be Used; Blue Metal Volume Containers; Elementary Geometric Solids	Calculates the volume of a rectangular prism.										● 428
Mathematics	Geometry: Volume	Guide Prism, Regular Square Prism, Sand, Hollow Volume Material	Calculates the volume of a pyramid.										● 429
Mathematics	Geometry: Volume	Guide Prism, Hexagonal Prism, Cylinder, Square, Hexagon and Circle from the Geometric Cabinet	Can calculate the volume of a cylinder.										● 430
Mathematics	Geometry: Volume	Right Circular Cone, Cylinder, Rectangular Prism, Square- Based Pyramid, Triangular-Based Pyramid	Calculates the volume of a cone.										● 431
Mathematics	Geometry: Volume	Volume Material, Construction Paper	Calculates the volume of a sphere.										● 432

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Surface Area	Volume Material, Cubing Material, Pictures of Polyhedra	Calculates the surface area of regular polyhedra.										● 433
Mathematics	Geometry: Surface Area	Volume Material, Construction Paper	Calculates the surface area of a cylinder.										● 434
Mathematics	Geometry: Surface Area	Volume Material and Teacher -Made Materials	Calculates the surface area of a cone.										● 435
Mathematics	Geometry: Surface Area	Volume Material, Teacher -Made Materials, and Cut-Out Inset of the Largest Circle in the Geometric Cabinet	Calculates the surface area of a sphere.										● 436