

Grade 3 JUMP Math Correlation to the Ontario Curriculum

NOTES:

Underlined JUMP Math lessons are review from a previous grade.

Italicized JUMP Math lessons contain prerequisite material required to meet the learning standard.

An asterisk (*) indicates that a JUMP Math lesson covers a curriculum requirement primarily in the Teacher's Guide.

Expectation codes source: Ontario Curriculum Unit Planner

JUMP Math strands are represented by:

NS Number Sense

ME Measurement

G Geometry

PA Patterns and Algebra

PDM Probability and Data Management

Number Sense and Numeration				
Overall Expectations				
3m8	read, represent, compare, and order whole numbers to 1000, and use concrete materials to represent fractions and money amounts to \$10;			
3m9	demonstrate an understanding of magnitude by counting forward and backwards by various numbers and from various starting points;			
3m10	solve problems involving the addition and subtraction of single- and multi-digit whole numbers, using a variety of strategies, and demonstrate an understanding of multiplication and division.			
Specific Expectations				
Quantity Relationships		JUMP Math Lessons		
3m11	represent, compare, and order whole numbers to 1000, using a variety of tools (e.g., base ten materials or drawings of them, number lines with increments of 100 or other appropriate amounts);	Part	Unit	Lessons
		1	2	NS3-2, 3, 7 to 9
3m12	read and print in words whole numbers to one hundred, using meaningful contexts (e.g., books, speed limit signs);	Part	Unit	Lessons
		1	2	NS3-4

COPYRIGHT © 2016 JUMP MATH: NOT TO BE COPIED.

Number Sense and Numeration				
3m13	identify and represent the value of a digit in a number according to its position in the number (e.g., use base ten materials to show that the 3 in 324 represents 3 hundreds);	Part	Unit	Lessons
		1	2	NS3-1 to 3
3m14	compose and decompose three-digit numbers into hundreds, tens, and ones in a variety of ways, using concrete materials (e.g., use base ten materials to decompose 327 into 3 hundreds, 2 tens, and 7 ones, or into 2 hundreds, 12 tens, and 7 ones);	Part	Unit	Lessons
		1	2	NS3-2, 3, 11
3m15	round two-digit numbers to the nearest ten, in problems arising from real-life situations;	Part	Unit	Lessons
		2	15	NS3-71, 72
3m16	represent and explain, using concrete materials, the relationship among the numbers 1, 10, 100, and 1000, (e.g., use base ten materials to represent the relationship between a decade and a century, or a century and a millennium);	Part	Unit	Lessons
		1	2	NS3-11
3m17	divide whole objects and sets of objects into equal parts, and identify the parts using fractional names (e.g., one half; three thirds; two fourths or two quarters), without using numbers in standard fractional notation;	Part	Unit	Lessons
		2	12	NS3-62 to 68
3m18	represent and describe the relationships between coins and bills up to \$10 (e.g., “There are eight quarters in a toonie and ten dimes in a loonie.”);	Part	Unit	Lessons
		2	16	NS3-80, 83, 84
3m19	estimate, count, and represent (using the \$ symbol) the value of a collection of coins and bills with a maximum value of \$10;	Part	Unit	Lessons
		2	16	NS3-77 to 80, 82 to 84
3m20	solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to 1000 (Sample problem: Do you know anyone who has lived for close to 1000 days? Explain your reasoning.).	Part	Unit	Lessons
		1	2	NS3-17
		1	3	NS3-26
		1	4	ME3-5, 6
Counting		JUMP Math Lessons		
3m21	count forward by 1’s, 2’s, 5’s, 10’s, and 100’s to 1000 from various starting points, and by 25’s to 1000 starting from multiples of 25, using a variety of tools and strategies (e.g., skip count with and without the aid of a calculator; skip count by 10’s using dimes);	Part	Unit	Lessons
		1	2	NS3-10
		1	6	<u>NS3-28</u> NS3-27, 29, 30
		2	16	NS3-76

COPYRIGHT © 2016 JUMP MATH: NOT TO BE COPIED.

Number Sense and Numeration

3m22	count backwards by 2's, 5's, and 10's from 100 using multiples of 2, 5, and 10 as starting points, and count backwards by 100's from 1000 and any number less than 1000, using a variety of tools (e.g., number lines, calculators, coins) and strategies.	Part	Unit	Lessons
		1	2	NS3-10
		1	6	NS3-27
		2	10	NS3-14
Operational Sense		JUMP Math Lessons		
3m23	solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies (e.g., to add $37 + 26$, add the tens, add the ones, then combine the tens and ones, like this: $30 + 20 = 50$, $7 + 6 = 13$, $50 + 13 = 63$);	Part	Unit	Lessons
		1	3	NS3-18, 24 NS3-25, 26
3m24	add and subtract three-digit numbers, using concrete materials, student-generated algorithms, and standard algorithms;	Part	Unit	Lessons
		1	2	NS3-12 NS3-13 to 17
3m25	use estimation when solving problems involving addition and subtraction, to help judge the reasonableness of a solution;	Part	Unit	Lessons
		2	15	NS3-72
3m26	add and subtract money amounts, using a variety of tools (e.g., currency manipulatives, drawings), to make simulated purchases and change for amounts up to \$10 (Sample problem: You spent 5 dollars and 75 cents on one item and 10 cents on another item. How much did you spend in total?);	Part	Unit	Lessons
		2	16	NS3-81, 86, 89
3m27	relate multiplication of one-digit numbers and division by one-digit divisors to real-life situations, using a variety of tools and strategies (e.g., place objects in equal groups, use arrays, write repeated addition or subtraction sentences) (Sample problem: Give a real-life example of when you might need to know that 3 groups of 2 is 3×2 .);	Part	Unit	Lessons
		1	6	NS3-32 to 38
		1	7	NS3-39 to 42, 47
		2	10	NS3-48 to 61
		2	11	PA3-16
		2	16	NS3-86
3m28	multiply to 7×7 and divide to $49 \div 7$, using a variety of mental strategies (e.g., doubles, doubles plus another set, skip counting).	Part	Unit	Lessons
		1	6	NS3-32 to 38
		1	7	NS3-39 to 42, 44 to 47
		2	10	NS3-53 to 61
		2	11	PA3-16

COPYRIGHT © 2016 JUMP MATH: NOT TO BE COPIED.

Measurement				
Overall Expectations				
3m29	estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using standard units;			
3m30	compare, describe, and order objects, using attributes measured in standard units.			
Specific Expectations				
Attributes, Units, and Measurement Sense		JUMP Math Lessons		
3m31	estimate, measure, and record length, height, and distance, using standard units (i.e., centimetre, metre, kilometre) (Sample problem: While walking with your class, stop when you think you have travelled one kilometre.);	Part	Unit	Lessons
		1	4	ME3-1, 3 to 5
3m32	draw items using a ruler, given specific lengths in centimetres (Sample problem: Draw a pencil that is 5 cm long);	Part	Unit	Lessons
		1	4	ME3-2
3m33	read time using analogue clocks, to the nearest five minutes, and using digital clocks (e.g., 1:23 means twenty-three minutes after one o'clock), and represent time in 12-hour notation;	Part	Unit	Lessons
		2	13	<u>ME3-15</u> ME3-14, 16 to 21
3m34	estimate, read (i.e., using a thermometer), and record positive temperatures to the nearest degree Celsius (i.e., using a number line; using appropriate notation) (Sample problem: Record the temperature outside each day using a thermometer, and compare your measurements with those reported in the daily news.);	Part	Unit	Lessons
		2	14	ME3-29
3m35	identify benchmarks for freezing, cold, cool, warm, hot, and boiling temperatures as they relate to water and for cold, cool, warm, and hot temperatures as they relate to air (e.g., water freezes at 0°C; the air temperature on a warm day is about 20°C, but water at 20°C feels cool);	Part	Unit	Lessons
		2	14	ME3-29
3m36	estimate, measure, and record the perimeter of two-dimensional shapes, through investigation using standard units (Sample problem: Estimate, measure, and record the perimeter of your notebook.);	Part	Unit	Lessons
		1	4	ME3-7, 8
3m37	estimate, measure (i.e., using centimetre grid paper, arrays), and record area (e.g., if a row of 10 connecting cubes is approximately the width of a book, skip counting down the cover of the book with the row of cubes [i.e., counting 10, 20, 30, ...] is one way to determine the area of the book cover);	Part	Unit	Lessons
		1	8	ME3-9 to 13
		2	12	NS3-70
3m38	choose benchmarks for a kilogram and a litre to help them perform measurement tasks;	Part	Unit	Lessons
		2	14	ME3-25, 26

COPYRIGHT © 2016 JUMP MATH: NOT TO BE COPIED.

Measurement				
3m39	estimate, measure, and record the mass of objects (e.g., can of apple juice, bag of oranges, bag of sand), using the standard unit of the kilogram or parts of a kilogram (e.g., half, quarter);	Part	Unit	Lessons
		2	14	ME3-24 to 26, 28
3m40	estimate, measure, and record the capacity of containers (e.g., juice can, milk bag), using the standard unit of the litre or parts of a litre (e.g., half, quarter).	Part	Unit	Lessons
		2	14	ME3-23
Measurement Relationships		JUMP Math Lessons		
3m41	compare standard units of length (i.e., centimetre, metre, kilometre) (e.g., centimetres are smaller than metres), and select and justify the most appropriate standard unit to measure length;	Part	Unit	Lessons
		1	4	ME3-6
3m42	compare and order objects on the basis of linear measurements in centimetres and/or metres (e.g., compare a 3 cm object with a 5 cm object; compare a 50 cm object with a 1 m object) in problem-solving contexts;	Part	Unit	Lessons
		1	4	ME3-6
3m43	compare and order various shapes by area, using congruent shapes (e.g., from a set of pattern blocks or Power Polygons) and grid paper for measuring (Sample problem: Does the order of the shapes change when you change the size of the pattern blocks you measure with?);	Part	Unit	Lessons
		1	8	ME3-10
3m44	describe, through investigation using grid paper, the relationship between the size of a unit of area and the number of units needed to cover a surface (Sample problem: What is the difference between the numbers of squares needed to cover the front of a book, using centimetre grid paper and using two-centimetre grid paper?);	Part	Unit	Lessons
		1	8	ME3-10
3m45	compare and order a collection of objects, using standard units of mass (i.e., kilogram) and/or capacity (i.e., litre);	Part	Unit	Lessons
		2	14	ME3-24, 27
3m46	solve problems involving the relationships between minutes and hours, hours and days, days and weeks, and weeks and years, using a variety of tools (e.g., clocks, calendars, calculators).	Part	Unit	Lessons
		2	13	ME3-19

Geometry and Spatial Sense				
Overall Expectations				
3m47	compare two-dimensional shapes and three-dimensional figures and sort them by their geometric properties;			
3m48	describe relationships between two-dimensional shapes, and between two-dimensional shapes and three-dimensional figures;			
3m49	identify and describe the locations and movements of shapes and objects.			
Specific Expectations				
Geometric Properties		JUMP Math Lessons		
3m50	use a reference tool (e.g., paper corner, pattern block, carpenter’s square) to identify right angles and to describe angles as greater than, equal to, or less than a right angle (Sample problem: Which pattern blocks have angles bigger than a right angle?);	Part	Unit	Lessons
		1	5	G3-5
3m51	identify and compare various polygons (i.e., triangles, quadrilaterals, pentagons, hexagons, heptagons, octagons) and sort them by their geometric properties (i.e., number of sides; side lengths; number of interior angles; number of right angles);	Part	Unit	Lessons
		1	5	G3-3, 5, 11, 12
3m52	compare various angles, using concrete materials and pictorial representations, and describe angles as <i>bigger than</i> , <i>smaller than</i> , or <i>about the same as</i> other angles (e.g., “Two of the angles on the red pattern block are bigger than all the angles on the green pattern block.”);	Part	Unit	Lessons
		1	5	G3-12
3m53	compare and sort prisms and pyramids by geometric properties (i.e., number and shape of faces, number of edges, number of vertices), using concrete materials;	Part	Unit	Lessons
		2	17	G3-19, 21, 22
3m54	construct rectangular prisms (e.g., using given paper nets; using Polydrons), and describe geometric properties (i.e., number and shape of faces, number of edges, number of vertices) of the prisms.	Part	Unit	Lessons
		2	17	G3-20 to 22
Geometric Relationships		JUMP Math Lessons		
3m55	solve problems requiring the greatest or least number of two-dimensional shapes (e.g., pattern blocks) needed to compose a larger shape in a variety of ways (e.g., to cover an outline puzzle) (Sample problem: Compose a hexagon using different numbers of smaller shapes.);	Part	Unit	Lessons
		1	5	G3-12*
		1	8	ME3-10*
3m56	explain the relationships between different types of quadrilaterals (e.g., a square is a rectangle because a square has four sides and four right angles; a rhombus is a parallelogram because opposite sides of a rhombus are parallel);	Part	Unit	Lessons
		1	5	G3-6 to 10

COPYRIGHT © 2016 JUMP MATH: NOT TO BE COPIED.

Geometry and Spatial Sense				
3m57	identify and describe the two-dimensional shapes that can be found in a three-dimensional figure (Sample problem: Build a structure from blocks, toothpicks, or other concrete materials, and describe it using geometric terms, so that your partner will be able to build your structure without seeing it.);	Part	Unit	Lessons
		2	17	G3-20, 21
3m58	describe and name prisms and pyramids by the shape of their base (e.g., rectangular prism, square-based pyramid);	Part	Unit	Lessons
		2	17	G3-20
3m59	identify congruent two-dimensional shapes by manipulating and matching concrete materials (e.g., by translating, reflecting, or rotating pattern blocks).	Part	Unit	Lessons
		1	5	G3-13
Location and Movement		JUMP Math Lessons		
3m60	describe movement from one location to another using a grid map (e.g., to get from the swings to the sandbox, move three squares to the right and two squares down);	Part	Unit	Lessons
		2	17	G3-15, 16
3m61	identify flips, slides, and turns, through investigation using concrete materials and physical motion, and name flips, slides, and turns as reflections, translations, and rotations (e.g., a slide to the right is a translation; a turn is a rotation);	Part	Unit	Lessons
		2	17	G3-17, 18
3m62	complete and describe designs and pictures of images that have a vertical, horizontal, or diagonal line of symmetry (Sample problem: Draw the missing portion of the given butterfly on grid paper.).	Part	Unit	Lessons
		1	5	G3-14

Patterning and Algebra				
Overall Expectations				
3m63	describe, extend, and create a variety of numeric patterns and geometric patterns;			
3m64	demonstrate an understanding of equality between pairs of expressions, using addition and subtraction of one- and two-digit numbers.			
Specific Expectations				
Patterns and Relationships		JUMP Math Lessons		
3m65	identify, extend, and create a repeating pattern involving two attributes (e.g., size, colour, orientation, number), using a variety of tools (e.g., pattern blocks, attribute blocks, drawings) (Sample problem: Create a repeating pattern using three colours and two shapes.);	Part	Unit	Lessons
		1	1	PA3-10 to 12
3m66	identify and describe, through investigation, number patterns involving addition, subtraction, and multiplication, represented on a number line, on a calendar, and on a hundreds chart (e.g., the multiples of 9 appear diagonally in a hundreds chart);	Part	Unit	Lessons
		1	1	<u>PA3-7, 8</u>
		2	11	PA3-14, 15
3m67	extend repeating, growing, and shrinking number patterns (Sample problem: Write the next three terms in the pattern 4, 8, 12, 16,);	Part	Unit	Lessons
		1	1	<u>PA3-1</u> PA3-2, 4, 5, 9, 11, 12
3m68	create a number pattern involving addition or subtraction, given a pattern represented on a number line or a pattern rule expressed in words (Sample problem: Make a number pattern that starts at 0 and grows by adding 7 each time.);	Part	Unit	Lessons
		1	1	PA3-6
		1	6	NS3-29, 30, 31*
		2	11	PA3-14, 15
3m69	represent simple geometric patterns using a number sequence, a number line, or a bar graph (e.g., the given growing pattern of toothpick squares can be represented numerically by the sequence 4, 7, 10, ..., which represents the number of toothpicks used to make each figure);	Part	Unit	Lessons
		2	11	PA3-13, 14
3m70	demonstrate, through investigation, an understanding that a pattern results from repeating an action (e.g., clapping, taking a step forward every second), repeating an operation (e.g., addition, subtraction), using a transformation (e.g., slide, flip, turn), or making some other repeated change to an attribute (e.g., colour, orientation).	Part	Unit	Lessons
		1	1	PA3-5*, 6, 12
		2	17	G3-17, 18

COPYRIGHT © 2016 JUMP MATH: NOT TO BE COPIED.

Patterning and Algebra				
Expressions and Equality		JUMP Math Lessons		
3m71	determine, through investigation, the inverse relationship between addition and subtraction (e.g., since $4 + 5 = 9$, then $9 - 5 = 4$; since $16 - 9 = 7$, then $7 + 9 = 16$);	Part	Unit	Lessons
		1	1	PA3-3*
3m72	determine, the missing number in equations involving addition and subtraction of one- and two-digit numbers, using a variety of tools and strategies (e.g., modelling with concrete materials, using guess and check with and without the aid of a calculator) (Sample problem: What is the missing number in the equation $25 - 4 = 15 + \square$?);	Part	Unit	Lessons
		2	11	PA3-17 to 19
3m73	identify, through investigation, the properties of zero and one in multiplication (i.e., any number multiplied by zero equals zero; any number multiplied by 1 equals the original number) (Sample problem: Use tiles to create arrays that represent 3×3 , 3×2 , 3×1 , and 3×0 . Explain what you think will happen when you multiply any number by 1, and when you multiply any number by 0.);	Part	Unit	Lessons
		1	7	NS3-43
3m74	identify, through investigation, and use the associative property of addition to facilitate computation with whole numbers (e.g., “I know that $17 + 16$ equals $17 + 3 + 13$. This is easier to add in my head because I get $20 + 13 = 33$.”).	Part	Unit	Lessons
		1	3	NS3-19

Data Management and Probability				
Overall Expectations				
3m75	collect and organize categorical or discrete primary data and display the data using charts and graphs, including vertical and horizontal bar graphs, with labels ordered appropriately along horizontal axes, as needed;			
3m76	read, describe, and interpret primary data presented in charts and graphs, including vertical and horizontal bar graphs;			
3m77	predict and investigate the frequency of a specific outcome in a simple probability experiment.			
Specific Expectations				
Collection and Organization of Data		JUMP Math Lessons		
3m78	demonstrate an ability to organize objects into categories, by sorting and classifying objects using two or more attributes simultaneously (Sample problem: Sort a collection of buttons by size, colour, and number of holes.);	Part	Unit	Lessons
		1	1	PA3-10
		1	5	G3-1 to 3
3m79	collect data by conducting a simple survey about themselves, their environment, issues in their school or community, or content from another subject;	Part	Unit	Lessons
		2	18	PDM3-11
3m80	collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence (e.g., in a pictograph, one car sticker represents 3 cars; on a bar graph, one square represents 2 students) (Sample problem: Graph data related to the eye colour of students in the class, using a vertical bar graph. Why does the scale on the vertical axis include values that are not in the set of data?).	Part	Unit	Lessons
		1	9	PDM3-1*, 2*, 3*
		2	18	PDM3-4 to 9
Data Relationships		JUMP Math Lessons		
3m81	read primary data presented in charts, tables, and graphs (including vertical and horizontal bar graphs), then describe the data using comparative language, and describe the shape of the data (e.g., “Most of the data are at the high end.”; “All of the data values are different.”);	Part	Unit	Lessons
		1	9	PDM3-2*, 3*
3m82	interpret and draw conclusions from data presented in charts, tables, and graphs;	Part	Unit	Lessons
		1	9	PDM3-3
		2	18	PDM3-4 to 9

COPYRIGHT © 2016 JUMP MATH: NOT TO BE COPIED.

Data Management and Probability				
3m83	demonstrate an understanding of mode (e.g., “The mode is the value that shows up most often on a graph.”), and identify the mode in a set of data.	Part	Unit	Lessons
		1	9	PDM3-3
		2	18	PDM3-6, 9
Probability		JUMP Math Lessons		
3m84	predict the frequency of an outcome in a simple probability experiment or game (e.g., “I predict that an even number will come up 5 times and an odd number will come up 5 times when I roll a number cube 10 times.”), then perform the experiment, and compare the results with the predictions, using mathematical language;	Part	Unit	Lessons
		2	18	PDM3-12, 14 to 16
3m85	demonstrate, through investigation, an understanding of fairness in a game and relate this to the occurrence of equally likely outcomes.	Part	Unit	Lessons
		2	18	PDM3-13

Grade 3 Essential Lessons for EQAO Test Preparation

EQAO test questions cover the majority of Ontario math curriculum topics. However, if you find that your class has been progressing too slowly and you are unable to cover the complete curriculum before the EQAO test, make sure to cover the most crucial topics.

The list below includes lessons that are essential for preparing for the EQAO test. Teach as many of these lessons as possible prior to the test. After the test, cover the remaining curriculum in the normal order.

Topic	Unit	Lessons
Division	10	NS3-48 to 56
Patterns	11	PA3-13, 15
Fractions	12	NS3-63, 65, 66, 68, 70
Time	13	ME3-14 to 17, 21
Estimation	15	NS3-71, 72
Money	16	NS3-76 to 80, NS3-82 to 84
Probability	18	PDM3-12, 13, 15, 16
Transformations	17	G3-15 to 18
3-D Shapes	17	G3-19 to 21
Graphs	18	PDM3-4 to 8

If you have not yet started Unit 16 on Money by the middle of April, teach that unit next and then teach the part of Unit 18 on Probability. If you have not yet started the Unit 18 lessons on Graphs and Probability by the end of April, teach the lessons on Probability first.