

Grade 7 JUMP Math Correlation to the New BC Curriculum

NOTES:

An asterisk (*) indicates that a JUMP Math lesson covers a curriculum requirement primarily in the lesson plan.

JUMP Math strands are represented by:

- N Number
- SP Statistics and Probability
- SS Shape and Space
- PR Patterns and Relations

Big Ideas

Decimals, fractions, and percents are used to represent and describe parts and wholes of numbers.

Computational fluency and flexibility with numbers extend to operations with integers and decimals.

Linear relations can be represented in many connected ways to identify regularities and make generalizations.

The constant ratio between the circumference and diameter of circles can be used to describe, measure, and compare spatial relationships.

Data from circle graphs can be used to illustrate proportion and to compare and interpret.

Content

JUMP Math Lessons

multiplication and division facts to 100 (extending computational fluency)

Part	Unit	Lessons
1	1	N7-2 to 6
2	13	SS7-32

- When multiplying 214 by 5, we can multiply by 10, then divide by 2 to get 1070.

Part	Unit	Lessons
2	13	SS7-32

operations with integers (addition, subtraction, multiplication, division, and order of operations)

Part	Unit	Lessons
1	1	N7-7 to 14
1	2	N7-15 to 18
1	3	PR7-1
1	6	N7-28 to 37

COPYRIGHT © 2022 JUMP MATH: NOT TO BE COPIED.

Content	JUMP Math Lessons		
• addition, subtraction, multiplication, division, and order of operations	Part	Unit	Lessons
	1	1	N7-7 to 12, 14
	1	2	N7-15 to 18
	1	3	PR7-1
• concretely, pictorially, symbolically	Part	Unit	Lessons
	1	1	N7-7 to 12, 14
	1	2	N7-15 to 18
	1	3	PR7-1
• order of operations includes the use of brackets, excludes exponents	Part	Unit	Lessons
	1	1	N7-13
	1	2	N7-17
• using two-sided counters	Part	Unit	Lessons
	1	1	N7-9, 11
• $9 - (-4) = 13$ because -4 is 13 away from $+9$	Part	Unit	Lessons
	1	1	N7-11*
• extending whole-number strategies to decimals	Part	Unit	Lessons
	1	6	N7-28 to 37
operations with decimals (addition, subtraction, multiplication, division, and order of operations)	Part	Unit	Lessons
	1	6	N7-29, 31 to 37
• includes the use of brackets, but excludes exponents	Part	Unit	Lessons
	1	6	N7-29, 31 to 37
relationships between decimals, fractions, ratios, and percents	Part	Unit	Lessons
	1	4	N7-22
	1	6	N7-28
	2	9	NS7-39, 40, 43, 44, 46, 47
• conversions, equivalency, and terminating versus repeating decimals, place value, and benchmarks	Part	Unit	Lessons
	2	9	N7-39, 40
• comparing and ordering decimals and fractions using the number line	Part	Unit	Lessons
	1	4	N7-22
	1	6	N7-28

COPYRIGHT © 2022 JUMP MATH: NOT TO BE COPIED.

Content	JUMP Math Lessons		
<ul style="list-style-type: none"> $\frac{1}{2} = 0.5 = 50\% = 50:100$ 	Part	Unit	Lessons
	2	9	N7-43, 44, 46
<ul style="list-style-type: none"> shoreline cleanup 	Part	Unit	Lessons
	2	9	N7-47
discrete linear relations, using expressions, tables, and graphs	Part	Unit	Lessons
	1	3	PR7-2 to 4, 6 to 8
	2	7	PR7-11
<ul style="list-style-type: none"> four quadrants, limited to integral coordinates 	Part	Unit	Lessons
	2	7	PR7-11
<ul style="list-style-type: none"> $3n + 2$; values increase by 3 starting from y-intercept of 2 	Part	Unit	Lessons
	1	3	PR7-2 to 4, 6 to 8
	2	7	PR7-11
<ul style="list-style-type: none"> deriving relation from the graph or table of values 	Part	Unit	Lessons
	1	3	PR7-3, 4, 6 to 8
	2	7	PR7-11
<ul style="list-style-type: none"> Small Number stories: <i>Small Number and the Old Canoe</i>, <i>Small Number Counts to 100</i> (mathcatcher.irmacs.sfu.ca/stories) 	Part	Unit	Lessons
	1	3	PR7-2*
two-step equations with whole-number coefficients, constants, and solutions	Part	Unit	Lessons
	2	7	PR7-10 to 16, 18
<ul style="list-style-type: none"> solving and verifying $3x + 4 = 16$ 	Part	Unit	Lessons
	2	7	PR7-10, 12 to 16, 18
<ul style="list-style-type: none"> modelling the preservation of equality (e.g., using balance, pictorial representation, algebra tiles) 	Part	Unit	Lessons
	2	7	PR7-12 to 16, 18
<ul style="list-style-type: none"> spirit canoe trip pre-planning and calculations 	Part	Unit	Lessons
	2	7	PR7-12, 18*
<ul style="list-style-type: none"> Small Number stories: <i>Small Number and the Big Tree</i> (mathcatcher.irmacs.sfu.ca/stories) 	Part	Unit	Lessons
	2	7	PR7-18*
circumference and area of circles	Part	Unit	Lessons
	2	8	SS7-16 to 21
	2	9	N7-42
	2	11	SS7-22, 23

Content	JUMP Math Lessons		
• constructing circles given radius, diameter, area, or circumference	Part	Unit	Lessons
	2	8	SS7-16, 20, 21
• finding relationships between radius, diameter, circumference, and area to develop $C = \pi \times d$ formula	Part	Unit	Lessons
	2	8	SS7-16 to 19
	2	9	N7-42
• applying $A = \pi \times r \times r$ formula to find the area given radius or diameter	Part	Unit	Lessons
	2	8	SS7-19
• drummaking, dreamcatcher making, stories of SpiderWoman (Dene, Cree, Hopi, Tsimshian), basket making, quill box making (Note: Local protocols should be considered when choosing an activity.)	Part	Unit	Lessons
	2	8	SS7-17*
volume of rectangular prisms and cylinders	Part	Unit	Lessons
	2	13	SS7-31 to 33
• volume = area of base \times height	Part	Unit	Lessons
	2	13	SS7-31 to 33
• bentwood boxes, wiigwaasabak and mide-wiigwaas (birch bark scrolls)	Part	Unit	Lessons
	2	13	SS7-33
• <i>Exploring Math through Haida Legends: Culturally Responsive Mathematics</i>	Part	Unit	Lessons
	2	13	SS7-33
Cartesian coordinates and graphing	Part	Unit	Lessons
	1	3	PR7-7
	1	5	SS7-1, 2, 4 to 10
	1	6	PR7-11
• origin, four quadrants, integral coordinates, connections to linear relations, transformations	Part	Unit	Lessons
	1	3	PR7-7
	1	5	SS7-1, 2, 4 to 10
	2	7	PR7-11
• overlaying coordinate plane on medicine wheel, beading on dreamcatcher, overlaying coordinate plane on traditional maps	Part	Unit	Lessons
	1	5	SS7-1
combinations of transformations	Part	Unit	Lessons
	1	5	SS7-3 to 11

COPYRIGHT © 2022 JUMP MATH: NOT TO BE COPIED.

Content	JUMP Math Lessons		
• four quadrants, integral coordinates	Part	Unit	Lessons
	1	5	SS7-3 to 10
• translation(s), rotation(s), and/or reflection(s) on a single 2D shape; combination of successive transformations of 2D shapes; tessellations	Part	Unit	Lessons
	1	5	SS7-3 to 11
• First Peoples art, jewelry making, birchbark biting	Part	Unit	Lessons
	1	5	SS7-6*
circle graphs	Part	Unit	Lessons
	2	12	SP7-8 to 10
• constructing, labelling, and interpreting circle graphs	Part	Unit	Lessons
	2	12	SP7-8 to 10
• translating percentages displayed in a circle graph into quantities and vice versa	Part	Unit	Lessons
	2	12	SP7-8 to 10
• visual representations of tidepools or traditional meals on plates	Part	Unit	Lessons
	2	12	SP7-10*
experimental probability with two independent events	Part	Unit	Lessons
	2	10	SP7-3 to 6
• experimental probability, multiple trials (e.g., toss two coins, roll two dice, spin a spinner twice, or a combination thereof)	Part	Unit	Lessons
	2	10	SP7-4 to 6
• dice games (web.uvic.ca/~tpelton/fn-math/fn-dicegames.html)	Part	Unit	Lessons
	2	10	SP7-3 to 6
financial literacy — financial percentage	Part	Unit	Lessons
	2	9	N7-44, 46
• financial percentage calculations	Part	Unit	Lessons
	2	9	N7-44, 46
• sales tax, tips, discount, sale price	Part	Unit	Lessons
	2	9	N7-44, 46

COPYRIGHT © 2022 JUMP MATH: NOT TO BE COPIED.

Grade 7 JUMP Math Exemplar Lessons for Curricular Competencies

The Curricular Competencies in the new BC Mathematics curriculum are addressed throughout JUMP Math's Grade 6 resource. The following table lists a selection of JUMP Math lessons that provide effective illustrations of how each Curricular Competency is addressed.

Curricular Competencies			
Reasoning and analyzing	JUMP Math Lessons		
• Use logic and patterns to solve puzzles and play games	Part	Unit	Lessons
	1	1	N7-10
	2	7	PR7-14
• Use reasoning and logic to explore, analyze, and apply mathematical ideas	Part	Unit	Lessons
	1	1	N7-4
	2	8	SS7-17
• Estimate reasonably	Part	Unit	Lessons
	1	6	N7-30
	2	8	SS7-18
	2	9	N7-44
• Demonstrate and apply mental math strategies	Part	Unit	Lessons
	Mental Math Minutes		
• Use tools or technology to explore and create patterns and relationships, and test conjectures	Part	Unit	Lessons
	1	2	N7-15
	1	6	N7-33
	2	8	SS7-17
• Model mathematics in contextualized experiences	Part	Unit	Lessons
	1	6	N7-37
	2	8	SS7-21

COPYRIGHT © 2022 JUMP MATH: NOT TO BE COPIED.

Curricular Competencies

Understanding and solving	JUMP Math Lessons		
<ul style="list-style-type: none"> Apply multiple strategies to solve problems in both abstract and contextualized situations 	Part	Unit	Lessons
	1	3	PR7-8
	2	7	PR7-18
	2	13	SS7-33
<ul style="list-style-type: none"> Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving 	Part	Unit	Lessons
	1	5	SS7-1, 9
	2	10	SP7-5
<ul style="list-style-type: none"> Visualize to explore mathematical concepts 	Part	Unit	Lessons
	1	5	SS7-10
	2	8	SS7-19
<ul style="list-style-type: none"> Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures 	Part	Unit	Lessons
	1	5	SS7-1
	2	13	SS7-33
Communicating and representing	JUMP Math Lessons		
<ul style="list-style-type: none"> Use mathematical vocabulary and language to contribute to mathematical discussions 	Part	Unit	Lessons
	1	5	SS7-2
	2	10	SP7-1
<ul style="list-style-type: none"> Explain and justify mathematical ideas and decisions 	Part	Unit	Lessons
	1	3	PR7-7
	2	9	N7-44
	2	10	SP7-6
<ul style="list-style-type: none"> Communicate mathematical thinking in many ways 	Part	Unit	Lessons
	1	1	N7-11
	2	7	PR7-16
<ul style="list-style-type: none"> Represent mathematical ideas in concrete, pictorial, and symbolic forms 	Part	Unit	Lessons
	1	1	N7-9
	2	7	PR7-16
	2	13	SS7-33

COPYRIGHT © 2022 JUMP MATH: NOT TO BE COPIED.

Curricular Competencies			
Connecting and reflecting	JUMP Math Lessons		
<ul style="list-style-type: none"> • Reflect on mathematical thinking 	Part	Unit	Lessons
	1	2	N7-16
	1	5	SS7-10
	2	8	SS7-19
	2	12	SP7-9
<ul style="list-style-type: none"> • Connect mathematical concepts to each other and to other areas and personal interests 	Part	Unit	Lessons
	1	5	SS7-3
	2	12	SS7-8, 9
<ul style="list-style-type: none"> • Use mathematical arguments to support personal choices 	Part	Unit	Lessons
	1	3	PR7-7, 8
<ul style="list-style-type: none"> • Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts 	Part	Unit	Lessons
	1	3	PR7-7
	2	8	SS7-17