

Grade 7 JUMP Math Correlation to the Alberta Curriculum

NOTES:

JUMP Math strands are represented by:

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

Number				
General Outcome				
Develop number sense.				
Specific Outcomes		JUMP Math Lessons		
		Part	Unit	Lessons
1.	Determine and explain why a number is divisible by 2, 3, 4, 5, 6, 8, 9 or 10, and why a number cannot be divided by 0. [C, R]	1	1	N7-2 to 6
2.	Demonstrate an understanding of the addition, subtraction, multiplication and division of decimals to solve problems (for more than 1-digit divisors or 2-digit multipliers, the use of technology is expected). [ME, PS, T] [ICT: P2–3.4] <i>Note: Through this outcome, students have the opportunity to maintain and refine previously learned operations with whole numbers (Grades 4 and 5).</i>	1	6	N7-29 to 37
3.	Solve problems involving percents from 1% to 100%. [C, CN, PS, R, T] [ICT: P2–3.4]	2	9	N7-43, 44, 46, 47
4.	Demonstrate an understanding of the relationship between positive terminating decimals and positive fractions and between positive repeating decimals and positive fractions. [C, CN, R, T] [ICT: P2–3.4]	2	9	N7-39, 40

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5.	Demonstrate an understanding of adding and subtracting positive fractions and mixed numbers, with like and unlike denominators, concretely, pictorially and symbolically (limited to positive sums and differences). [C, CN, ME, PS, R, V]	Part	Unit	Lessons
		1	4	N7-23 to 26
6.	Demonstrate an understanding of addition and subtraction of integers, concretely, pictorially and symbolically. [C, CN, PS, R, V] <i>Note: Through this outcome, students have the opportunity to maintain and refine previously learned operations of addition and subtraction with whole numbers (Grade 4).</i>	Part	Unit	Lessons
		1	1	N7-7 to 14
		1	3	PR7-1
7.	Compare and order positive fractions, positive decimals (to thousandths) and whole numbers by using: • benchmarks • place value • equivalent fractions and/or decimals. [CN, R, V]	Part	Unit	Lessons
		1	4	N7-22
		1	6	N7-28
Patterns & Relations — Patterns				
General Outcome				
Use patterns to describe the world and to solve problems.				
Specific Outcomes		JUMP Math Lessons		
1.	Demonstrate an understanding of oral and written patterns and their equivalent linear relations. [C, CN, R]	Part	Unit	Lessons
		1	3	PR7-3, 4, 8
2.	Create a table of values from a linear relation, graph the table of values, and analyze the graph to draw conclusions and solve problems. [C, CN, PS, R, V] [ICT: C7–3.1]	Part	Unit	Lessons
		1	3	PR7-3, 4, 6 to 8

Patterns & Relations — Variables and Equations

General Outcome

Represent algebraic expressions in multiple ways.

Specific Outcomes		JUMP Math Lessons		
		Part	Unit	Lessons
3.	Demonstrate an understanding of preservation of equality by: <ul style="list-style-type: none"> • modelling preservation of equality, concretely, pictorially and symbolically • applying preservation of equality to solve equations. [C, CN, PS, R, V]	2	7	PR7-13 to 18
4.	Explain the difference between an expression and an equation. [C, CN]	1	3	PR7-2
		2	7	PR7-10, 12
5.	Evaluate an expression, given the value of the variable(s). [CN, R] <i>Note: Through this outcome, students have the opportunity to maintain and refine previously learned operations with whole numbers (Grades 4 and 5).</i>	1	3	PR7-2
6.	Model and solve, concretely, pictorially and symbolically, problems that can be represented by one-step linear equations of the form $x + a = b$, where a and b are integers. [CN, PS, R, V] <i>Note: Through this outcome, students have the opportunity to maintain and refine previously learned operations of addition and subtraction with whole numbers (Grade 4).</i>	2	7	PR7-17
7.	Model and solve, concretely, pictorially and symbolically, problems that can be represented by linear equations of the form: <ul style="list-style-type: none"> • $ax + b = c$ • $ax = b$ • $\frac{x}{a} = b, a \neq 0$ where a, b and c are whole numbers. [CN, PS, R, V] <i>Note: Through this outcome, students have the opportunity to maintain and refine previously learned operations with whole numbers (Grades 4 and 5).</i>	2	7	PR7-12 to 16, 18

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Shape & Space — Measurement				
General Outcome				
Use direct and indirect measurement to solve problems.				
Specific Outcomes		JUMP Math Lessons		
1.	Demonstrate an understanding of circles by: <ul style="list-style-type: none">describing the relationships among radius, diameter and circumferencerelating circumference to pidetermining the sum of the central anglesconstructing circles with a given radius or diametersolving problems involving the radii, diameters and circumferences of circles. [C, CN, PS, R, V]	Part	Unit	Lessons
		2	8	SS7-16, 17, 20, 21
		2	9	N7-42
		2	11	SS7-22, 23
2.	Develop and apply a formula for determining the area of: <ul style="list-style-type: none">trianglesparallelogramscircles. [CN, PS, R, V]	Part	Unit	Lessons
		2	8	SS7-12 to 15, 20, 21
Shape & Space — 3-D Objects and 2-D Shapes				
General Outcome				
Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.				
Specific Outcomes		JUMP Math Lessons		
3.	Perform geometric constructions, including: <ul style="list-style-type: none">perpendicular line segmentsparallel line segmentsperpendicular bisectorsangle bisectors. [CN, R, V]	Part	Unit	Lessons
		2	11	SS7-22, 24 to 29

Shape & Space — Transformations

General Outcome

Describe and analyze position and motion of objects and shapes.

Specific Outcomes		JUMP Math Lessons		
		Part	Unit	Lessons
4.	Identify and plot points in the four quadrants of a Cartesian plane, using integral ordered pairs. [C, CN, V]	1	5	SS7-1 to 3
5.	Perform and describe transformations (translations, rotations or reflections) of a 2-D shape in all four quadrants of a Cartesian plane (limited to integral number vertices). [C, CN, PS, T, V] [ICT: C6–3.4]	1	5	SS7-3 to 10

Statistics & Probability — Data Analysis

General Outcome

Collect, display and analyze data to solve problems.

Specific Outcomes		JUMP Math Lessons		
		Part	Unit	Lessons
1.	Demonstrate an understanding of central tendency and range by: <ul style="list-style-type: none"> determining the measures of central tendency (mean, median, mode) and range determining the most appropriate measures of central tendency to report findings. [C, PS, R, T] [ICT: P2–3.4]	2	12	SP7-11, 12, 15, 16
2.	Determine the effect on the mean, median and mode when an outlier is included in a data set. [C, CN, PS, R]	2	12	SP7-13, 14, 16
3.	Construct, label and interpret circle graphs to solve problems. [C, CN, PS, R, T, V] [ICT: P2–3.3]	2	12	SP7-7 to 10, 16

Statistics & Probability — Chance and Uncertainty				
General Outcome				
Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.				
Specific Outcomes		JUMP Math Lessons		
4.	Express probabilities as ratios, fractions and percents. [C, CN, R, T, V] [ICT: P2–3.4]	Part	Unit	Lessons
		2	10	SP7-1 to 3
5.	Identify the sample space (where the combined sample space has 36 or fewer elements) for a probability experiment involving two independent events. [C, ME, PS]	Part	Unit	Lessons
		2	10	SP7-4, 5
6.	Conduct a probability experiment to compare the theoretical probability (determined using a tree diagram, table or other graphic organizer) and experimental probability of two independent events. [C, PS, R, T] [ICT: C7–3.2, P2–3.4]	Part	Unit	Lessons
		2	10	SP7-6