operations:

- includes brackets and exponents
- simplifying (–3/4) ÷ 1/5 + ((–1/3) x (–5/2))
- simplifying $1 – 2 \times (4/5)^2$
- paddle making

exponents:

- includes variable bases
- $2^7 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 128$; $n^4 = n \times n \times n \times n$
- exponent laws (e.g., $6^0 = 1$; $m^1 = m$; $n^5 \times n^3 = n^8$; $y^7/y^3 = y^4$; $(5n)^3 = 5^3 \times n^3 = 125n^3$; $(m/n)^5 = m^5/n^5$; and $(3^2)^4 = 3^8$)
- limited to whole-number exponents and whole-number exponent outcomes when simplified
- $(–3)^2$ does not equal $–3^2$
- $3x(x – 4) = 3x^2 – 12x$

polynomials:

- variables, degree, number of terms, and coefficients, including the constant term
- $(x^2 + 2x – 4) + (2x^2 – 3x – 4)$
- $(5x – 7) – (2x + 3)$
- $2n(n + 7)$
- $(15k^2 –10k) \div (5k)$
- using algebra tiles

two-variable linear relations:

- two-variable continuous linear relations; includes rational coordinates
- horizontal and vertical lines
- graphing relation and analyzing
- interpolating and extrapolating approximate values
- spirit canoe journey predictions and daily checks

multi-step:

- includes distribution, variables on both sides of the equation, and collecting like terms
- includes rational coefficients, constants, and solutions
- solving and verifying $1 + 2x = 3 – 2/3(x + 6)$
- solving symbolically and pictorially

Content – Elaborations

proportional reasoning:

- scale diagrams, similar triangles and polygons, linear unit conversions
- limited to metric units
- drawing a diagram to scale that represents an enlargement or reduction of a given 2D shape
- solving a scale diagram problem by applying the properties of similar triangles, including measurements
- integration of scale for First Peoples mural work, use of traditional design in current First Peoples fashion design, use of similar triangles to create longhouses/models

statistics:

- population versus sample, bias, ethics, sampling techniques, misleading stats
- analyzing a given set of data (and/or its representation) and identifying potential problems related to bias, use of language, ethics, cost, time and timing, privacy, or cultural sensitivity
- using First Peoples data on water quality, Statistics Canada data on income, health, housing, population

financial literacy:

- banking, simple interest, savings, planned purchases
- creating a budget/plan to host a First Peoples event

