FNESC Mathematics First Peoples

Lesson Suggestions + Connection to Curriculum Materials:

*This is by no means a finite list of possibilities*

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| **THEMES** | **Sub-topics** | **Grade 8 Math Concepts** | **Grade 9 Math Concepts** |
| **Family & Ancestry** | Family trees | * number percentages (A3) * fractions (A6) | * powers and exponents (A1) |
| **Travel and Navigation** | Stars and landmarks | * Pythagorean theorem (C1) * rates ratios & proportional reasoning (A5) * operations with integers (A7) |  |
| Tides | * 2-variable linear relations (B1) * linear equations (B2) * data presentation (D1) | * generalizing patterns using linear equations (B1) * graphing linear relations (B2) * modeling & solving linear   equations (B3) |
| Canoes (e.g., how they move, wakes relative to boat length and speed, *d*=*rt*) — *see Unit 2 for an example* | * perfect squares & square roots (A1) * approximate square roots (A2) * 2-variable linear relations (B1) * graph linear equations (B2) * views of 3D objects (C5) | * square roots (A5) * approximate square roots (A6) * generalizing patterns using linear equations (B1) * graphing linear relations (B2) * scale diagrams of 2-D shapes (C4) |
| **Games** | Games of chance (e.g., Lahal, bone game) — *see Unit 4 for an example* | * data presentation (D1) * chance and probability (D2) | * role of probability in society (D4) |
| **Land, Environment, & Resource Management** | Hunting — *see Unit 5 for an example* |  | * generalize a pattern (B1) * graph a linear relation (B2) * model & solve linear equations (B3) * single-variable inequalities (B4) |
| Salmon (e.g., serving sizes, estimated catches, population dynamics) — *see Unit 8 for an example* | * number percentages (A3) * rates & ratios (A4) * proportional reasoning problems (A5) * linear relations (B1) * statistics and probability (D1, D2) | * populations vs. samples (D2) * data analysis plan (D3) |
|  | Food Gathering, (e.g., serving sizes, time management, storage capacities, predicted yields) | * number percentages (A3) * rates & ratios (A4) * proportional reasoning problems (A5) * fractions (A6) * integer work (A7) * linear relations (B1) * statistics and probability (D1, D2) | * powers and exponents (A1) * rational numbers (A3) |
| Pollution/ Contamination (e.g., monitoring toxicity levels in drinking water, aquatic life) — *see the Supplemental Unit for an example* | * proportional reasoning problems (A5) * linear relations (B1) * linear equations (B2) * statistics and probability (D1) | * generalizing patterns using linear equations (B1) * graphing linear relations (B2) * solving linear equations (B3) * data analysis (D1, D2, D3, D4) |
| Cedar Harvest (e.g., calculating yield, sustainability) | * surface area (C3) * volume (C4) | * generalizing patterns using linear equations (B1) * single-variable inequalities (B4) * polynomial expressions (B5) |
| **Community Profiles** | Contemporary & historical demographics | * number percentages (A3) * data presentation (D1) | * data analysis (D1, D2, D3, D4) |
| **Artwork** | Totem Poles/ Monuments (e.g., designing, raising) | * Pythagorean theorem (C1) | * ratios & scale (C4) * symmetry (C5) |
| Bentwood Boxes —  *see Unit 3 for an example* | * ratios & scale (A4) * 3-D nets (C2) * surface area (C3) * volume (C4) * views of 3-D objects (C5) * transformations – tessellation (C6) | * surface area of composite 3D objects (C2) * ratios & scale (C4) * line and rotational symmetry (C5) |
| Blankets — *see Unit 7 for an example* | * transformations – tessellation (C6) * Pythagorean theorem (C1) | * generalizing patterns using linear equations (B1) * polygons (C3) * ratios & scale (C4) |
| Drums (e.g., building, decorating, rhythms) | * 3-D nets (C2) * surface area (C3) * volume (C4) * multiply & divide positive fractions & integers (A6) * transformations – tessellation (C6) | * circle geometry (C1) * surface area (C2) * scale diagrams (C4) * line and rotational symmetry (C5) |
| **Nutrition** | Cooking, Feast — *see Unit 1 for an example* | * number percentages (A3) * rates & ratios (A4) * proportional reasoning problems (A5) * multiply & divide positive fractions & integers (A6) | * fractions, decimals, percentages (A3) |
| **Dwellings** | Circle dwellings (e.g., kickwilly/kekuli, igloo) — *see Unit 6 for an example* |  | * circle geometry (C1) * surface area (C2) * scale diagrams (C4) * ine and rotational symmetry (C5) |
| **Dwellings** | Longhouse | * perfect squares & square roots (A1) * approximate square roots (A2) * number percentages (A3) * proportional reasoning problems (A5) * views of 3-D objects (C5) | * surface area (C2) * polygons (C3) * scale diagrams (C4) * line symmetry (C5) |