Big Ideas*

Patterns are used to represent identified regularities and form generalizations

- Number patterns can be expressed used variables in tables. (5)
- Functional linear relationships can be represented using expressions with variables. (6)
- Functional linear relationships can be represented in many connected ways. (7)
- Discrete functional relationships can be represented in many connected ways. (8)

Curricular Competencies**

Analyzing a problem

- Use multiple strategies to develop, construct, and apply mathematical understanding through problem solving
- Estimate and determine the reasonableness of values
- Develop and apply mental math strategies to determine decimal and fraction calculations, deepen understanding, and reinforce whole number computational fluency

Reasoning and proof

- Inductively and deductively reason and use logic to explore, make connections, predict, analyze, generalize, and make conclusions

Communicating

- Communicate concretely, pictorially, symbolically, and using spoken and written language to express, describe, explain, represent, clarify, modify, reinforce, apply, defend and extend mathematical ideas

Connecting

- Visualize and describe mathematical concepts
- Connect mathematical concepts to each other, and make mathematical connections to the real world

Representing

- Develop mathematical understanding through concrete, pictorial, and symbolic representations
- Use technology appropriately to explore and create patterns, examine relationships, test conjectures, solve problems, record, communicate and represent thinking

*Big Ideas courtesy of the BCAMT

** https://curriculum.gov.bc.ca/curriculum/whats-new/mathematics

Patterns	**I can…**
6 ADRM	Use value tables to solve problems.
6 ADRM	Use value tables and graphs to help make sense of: • increasing patterns. • decreasing patterns.
7 ADRM	Connect oral and written patterns with their equivalent linear relations.
7 ADRM	Use whole numbers to: • create a table of values from a linear relation, • graph the table of values, • analyze the graph to draw conclusions and solve problems.
8 ADRM	Graph and analyze two variable relations. Use interpolation and extrapolation to solve problems.
8 ADRM	Use a linear graph to describe the relationship between the two variables.
Relationships	**I can…**
6 ADRM	Explain what is meant when a mathematician says "**preservation of equality**".
6 ADRM	Demonstrate my understanding of "**preservation of equality**" using solid objects, pictures, and mathematical symbols.
6 ADRM	Identify the "coefficients", "constants", "variables" and "terms" in an equation.
6 ADRM	List and describe the Addition Properties of the Number System.
7 ADRM	List and describe the Multiplication Properties of the Number System.
6 ADRM	Solve one-step equations with whole number coefficients and solutions, using solid objects, pictures, and mathematical symbols.
7 ADRM	Solve two-step equations with whole number coefficients and solutions, using solid objects, pictures, and mathematical symbols.
8 ADRM	Solve one and two-step linear equations involving integers and fractions.
7 ADRM	Distinguish between the mathematical terms "**expression**" and "**equation**".
7 ADRM	Explain what is meant when a mathematician says "**substitution**".
7 ADRM	Write expressions and evaluate them using substitution.
8 ADRM	Model and solve problems using linear equations.

IXL:
Grade 6 Topics N & O
Grade 7 Topics T, U, Q, & V
Grade 8 Topics I,T,W,U,O & V