Grade: 20-2	Subject Area: Math	Planning Team: Kim and team

Big Idea(s): What do I need to understand? I understand ==algebraic== and ==graphical== reasoning through the study of ==relations==

Unit Guiding Question(s):
What is algebra and why is it useful?
How can we see and understand the relationships between given algebraic scenarios?
How are algebraic equations and graphs connected?
How can I use graphing to show algebraic equations?
How can I understand an algebraic scenario by looking at information in a graph?

Key Vocabulary: algebra, relationships, algebraic scenarios, algebraic equations, graph, quadratic function, vertex, intercepts, axis of symmetry, domain, range, factors, factoring, ordered pairs, coordinates, x, y, polynomials, roots, quadratic equation, substitution, verify

	Curricular Language	Student Friendly Language
What do students need to know? **Specific Outcome 1.**	Demonstrate an understanding of the characteristics of ==quadratic functions==, including: • vertex • intercepts domain and range axis of symmetry.	I know what quadratic functions are I know that quadratic functions have a vertex, intercepts, and an axis of symmetry I know that quadratic functions are defined by their domain and range
What do students need to do? **Specific Outcome 2.**	==Solve problems== that involve ==quadratic equations==.	I can solve problems that use quadratic equations
Who do student need to be? **Mathematical Processes**	CN, PS, T, V, C, R	I can make connections to help me understand I can problem solve in math I can use technology as a tool I can visualize as a strategy to help me understand I can communicate my thinking I can reason by justifying my thinking

Shelley Moore, 2021

Backwards Design Alberta Goals Cheat Sheet (SUPPORTS)

Backward Design Element	In Science it is called:	In Social Studies it is called:	In Math it is called:	In Language Arts/English it is called:
Topic: What is the theme/topic/context?	Unit of Study	Title	Strand	Theme of choice
Big Idea: What do we need to understand? Why are we learning this?	Overview	General Learning Outcome (GLO)	General Learning Outcome (GLO)	General Learning outcome (GLO)
Guiding Question: Turning the BIG IDEA into a questions for the students	Focus Questions	Make it out of the GLO	Make it out of the GLO	Make a question out of the theme
Content Goals: What do we need to know? (evaluate)	STS & Knowledge	Knowledge & Understandings	Specific Outcomes	none
Process Goals: What do we need to do? (evaluate)	Skills	Values & Attitudes	Skills & Processes	Specific learning outcomes
	Attitudes	Dimensions of Thinking		

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