Mathematics
Algebra 1: CP
Unit 9: Quadratic Equations and Functions

Essential Understandings	▪ Future success in algebra is based on the knowledge of quadratic equations and functions.
Essential Questions	▪ How do you evaluate and approximate square roots? ▪ How do solve quadratic equations by finding square roots? ▪ How do you use the properties of radicals to simplify radicals? ▪ How do you solve quadratic equations by graphing?
Essential Knowledge	▪ Certain square roots must be memorized. ▪ Quadratic equations can be solved by finding square roots. ▪ Properties of radicals can be used to simplify radicals. ▪ Quadratic equations can be solved by graphing.
Vocabulary	▪ <u>Terms</u>: o square root, radicand, radical expression, quadratic equation, parabola, quadratic formula.
Essential Skills	▪ Evaluate and approximate square roots. ▪ Solve quadratic equations by graphing. ▪ Use the properties of radicals to simplify radicals. ▪ Solve quadratic equations by finding square roots.

Related Maine Learning Results	<u>Mathematics</u>
	D. Algebra
	  Symbols and Expressions
	  D1.Students understand and use polynomials and expressions with rational exponents.
	    a. Simplify expressions including those with rational numbers.
	    b. Add, subtract, and multiply polynomials.
	    c. Factor the common term out of polynomial expressions.
	    d. Divide polynomials by (ax+b).

Sample Lessons And Activities	▪ Students will orally respond to questions. ▪ Students will utilize worksheets and in their notes to demonstrate individual understanding of the concepts.
Sample Classroom Assessment Methods	▪ Evaluate homework ▪ Quizzes ▪ Chapter test
Sample Resources	▪ <u>Publications</u>: o <u>Algebra 1</u> - McDougall Littell