Mathematics
Algebra 1: Academic
Unit 8: Laws of Exponents

Essential Understandings	▪ The laws of exponents are very important to future mathematical work.
Essential Questions	▪ What are the multiplication laws of exponents? ▪ How do I evaluate powers with negative exponents? ▪ How do I evaluate powers with zero as their exponent? ▪ What are the division laws of exponents?
Essential Knowledge	▪ There are many multiplication laws of exponents. ▪ There are rules for negative exponents. ▪ There are rules for zero as an exponent. ▪ There are many division laws of exponents.
Vocabulary	▪ <u>Terms:</u> o power, base, exponent, product of powers property, power of a power property, power of a product property, zero exponents, negative exponents, quotient of a powers property, power of a quotient property
Essential Skills	▪ Use the multiplication laws of exponents. ▪ Evaluate powers with negative exponents. ▪ Evaluate powers with zero as their exponent. ▪ Use the division laws of exponents.

Related Maine Learning Results	<u>Mathematics</u>
	A. Number
	   Real Number
	   A1. Students will know how to represent and use real numbers.
	      c. Compute using laws of exponents.
	D. Algebra
	   Symbols and Expressions
	   D1. Students understand and use polynomials and expressions with rational exponents.
	      a. Simplify expressions including those with rational numbers.

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	▪ Quizzes ▪ Take-home worksheets ▪ Tests
Sample Resources	▪ <u>Publications:</u> o <u>Algebra</u> -Foerster