

Brunswick School Department
Algebra 1: Academic
Connections to Algebra

Essential Understandings	<ul style="list-style-type: none"> Connecting pre-algebra to algebra is a very important step in learning Algebra. These are essential understandings that are prerequisites to Academic Algebra 1 and students are expected to have these skills prior to taking this class.
Essential Questions	<ul style="list-style-type: none"> How do you evaluate complex expressions and powers? What is the order of operations? How do you check solutions of equations and inequalities? How do you translate words into mathematical symbols? How do you model and solve real-life equations? What are the different types of tables and graphs and how do I use them? What are functions and how do I represent them? Which vocabulary terms will help me be successful in the future?
Essential Knowledge	<ul style="list-style-type: none"> Expressions and powers can be evaluated. Order of operations need to be performed in a specific sequence. Equations and inequalities are different but both have solutions. Words can be written as mathematical symbols. Models of real-life problems make them easier to solve. There are different types of tables and graphs. Functions are a large part of Algebra.
Vocabulary	<ul style="list-style-type: none"> <u>Terms:</u> <ul style="list-style-type: none"> arithmetic operations (sum, difference, product, & quotient), grouping symbols, order of operations, variable, expression, evaluate, equation, solve, inequality, solutions, power, base, exponent, factors, terms, substitute, simplify
Essential Skills	<ul style="list-style-type: none"> Evaluate complex expressions and powers using substitution. Correctly follow the order of operations. Check solutions of equations and inequalities. Translate words into mathematical symbols. Model and solving real-life problems. Use tables and graphs to organize data. Identify functions.
Related Maine Learning Results	<p><u>Mathematics</u></p> <p>B. Data Measurement and Approximation</p> <p>B1.Students understand the relationship between precision and accuracy.</p> <p>a. Express answers to a reasonable degree of precision in the context of a given problem.</p>
Sample Lessons And Activities	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none">▪ Quizzes▪ Take-home worksheets▪ Tests
Sample Resources	<ul style="list-style-type: none">▪ <u>Publications:</u><ul style="list-style-type: none">○ <u>Algebra 1</u> - Foerster