

**Brunswick School Department
Topics in Algebra and Geometry
Unit 2: Properties of Real Numbers**

Essential Understandings	<ul style="list-style-type: none"> Use of real numbers is a very important step in understanding algebra.
Essential Questions	<ul style="list-style-type: none"> What are the different types of real numbers? How do you graph real numbers? What is absolute value? How do you add, subtract, multiply and divide real numbers? What is the distributive property? How do you simplify expressions?
Essential Knowledge	<ul style="list-style-type: none"> There are many types of real numbers. All real numbers can be graphed on number lines. Absolute value is a number's distance from zero. Addition, subtraction, multiplication, and division of real numbers follow important rules.
Vocabulary	<ul style="list-style-type: none"> <u>Terms:</u> <ul style="list-style-type: none"> real numbers, number line, absolute value, distributive property
Essential Skills	<ul style="list-style-type: none"> Identify real numbers. Graph real numbers on number lines. Find the absolute value. Add, subtract, multiply and divide real numbers Use the distributive property. Simplify expressions.
Related Maine Learning Results	<p><u>Mathematics</u> A. Number Real Number A1.Students will know how to represent and use real numbers.</p> <ol style="list-style-type: none"> Use the concept of nth root. Estimate the value(s) of roots and use technology to approximate them. Compute using laws of exponents. Multiply and divide numbers expressed in scientific notation. Understand that some quadratic equations do not have real solutions and that there exist other number systems to allow for solutions to these equations.
Sample Lessons And Activities	<ul style="list-style-type: none"> Students will orally respond to questions. Students will utilize white boards to demonstrate individual understandings of concepts.
Sample Classroom Assessment Methods	<ul style="list-style-type: none"> Students will take an individual written assessment on the skills addressed by the essential questions. Students will complete homework assignments from the textbook.

Sample Resources	<ul style="list-style-type: none">▪ <u>Publications:</u><ul style="list-style-type: none">○ <u>Algebra 1 Textbook</u> (McDougal Littell)
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