

## Algebra I Honors

### Unit 3: Solving Linear Functions

<b>Essential Understandings</b>	<ul style="list-style-type: none"> <li>▪ Solving linear functions is one of the major skills necessary to be successful in Algebra 1.</li> </ul>
<b>Essential Questions</b>	<ul style="list-style-type: none"> <li>▪ What is a solution of an equation?</li> <li>▪ How do you solve complex algebraic equations?</li> <li>▪ How do you solve and use formulas?</li> <li>▪ How do you use ratios and rates to solve real life problems?</li> <li>▪ How do you solve percentage problems?</li> <li>▪ How do you solve absolute-value equations?</li> </ul>
<b>Essential Knowledge</b>	<ul style="list-style-type: none"> <li>▪ Solutions of equations are what make equations true.</li> <li>▪ Ratios can be written in three different ways.</li> <li>▪ Ratios and rates can be used to solve real life problems.</li> <li>▪ The definition of percentage is parts per hundred.</li> <li>▪ Absolute value equations can be solved.</li> </ul>
<b>Vocabulary</b>	<ul style="list-style-type: none"> <li>▪ <u>Terms:</u> <ul style="list-style-type: none"> <li>○ Equation, linear equations, formulas, ratios, rates, percent, percent equations, absolute value equations.</li> <li>○ Identity, literal equations, proportions, cross products.</li> </ul> </li> </ul>
<b>Essential Skills</b>	<ul style="list-style-type: none"> <li>▪ Identify solutions of equations.</li> <li>▪ Solve algebraic equations.</li> <li>▪ Solve and use formulas.</li> <li>▪ Use ratios and rates to solve real life problems.</li> <li>▪ Solve percentage problems.</li> <li>▪ Solve absolute-value equations.</li> <li>▪ Solve and check complex equations using technology.</li> </ul>
<b>Related Maine Learning Results</b>	<p>B. Measurement and Approximation 1a  D. Symbols and Expressions 1a  D. Equations and Inequalities 2d</p>
<b>Sample Lessons And Activities</b>	<ul style="list-style-type: none"> <li>▪ Students will orally respond to questions.</li> <li>▪ Students will utilize worksheets and in their notes to demonstrate individual understanding of the concepts.</li> </ul>
<b>Sample Classroom Assessment Methods</b>	<ul style="list-style-type: none"> <li>▪ Quizzes, take-home worksheets, and tests.</li> </ul>
<b>Sample Resources</b>	<ul style="list-style-type: none"> <li>▪ <u>Publications:</u> <ul style="list-style-type: none"> <li>○ Algebra 1 Textbook (Larson)</li> </ul> </li> <li>▪ <u>Other:</u> <ul style="list-style-type: none"> <li>○ Graphing calculators.</li> </ul> </li> </ul>
<b>Technology Link</b>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.brunswick.k12.me.us/curriculum">http://www.brunswick.k12.me.us/curriculum</a></li> </ul>