

NJCCCS Standards:

STANDARD 5.3 (MATHEMATICAL APPLICATIONS) ALL STUDENTS WILL INTEGRATE MATHEMATICS AS A TOOL FOR PROBLEM-SOLVING IN SCIENCE, AND AS A MEANS OF EXPRESSING AND/OR MODELING SCIENTIFIC THEORIES.

By the end of **Grade 8**, students will:

<p>A</p> <p>Numerical Operations</p>	<p>1. Express quantities using appropriate number formats, such as:</p> <ul style="list-style-type: none">• decimals.• percents.• scientific notation.
<p>B</p> <p>Geometry and Measurement</p>	<p>1. Perform mathematical computations using labeled quantities and express answers in correctly derived units.</p>
<p>C</p> <p>Patterns and Algebra</p>	<p>1. Express physical relationships in terms of mathematical equations derived from collected data.</p>
<p>D</p> <p>Data Analysis and Probability</p>	<p>1. Represent and describe mathematical relationships among variables using:</p> <ul style="list-style-type: none">• graphs.• tables. <p>2. Analyze experimental data sets using measures of central tendency:</p> <ul style="list-style-type: none">• mean.• mode.• median. <p>3. Construct and use a graph of experimental data to draw a line of best fit and identify a linear relationship between variables when appropriate.</p> <p>4. Use computer spreadsheets, graphing and database applications to assist in quantitative analysis of data.</p>