

**Glencoe**  
**Mathematics: Applications and Connections, Course 3**  
 correlated to  
**NEW JERSEY**  
**STATE DEPARTMENT OF EDUCATION**  
**CORE CURRICULUM STANDARDS**

<b>STANDARDS</b>	<b>LESSON REFERENCES</b>
4.1 All students will develop the ability to pose and solve mathematical problems in mathematics, other disciplines, and everyday experiences.	1-7A, 4-1A, 8-3B, 9-5A, 12-6A
4.2 All students will communicate mathematically through written, oral, symbolic, and visual forms of expression.	1-5, 2-8, 3-6, 5-6, 7-2, 10-2, 13-3
4.3 All students will connect mathematics to other learning by understanding the interrelationships of mathematical ideas and the roles that mathematics and mathematical modeling play in other disciplines and in life.	1-5, 4-5, 6-9, 7-7, 10-4, 11-2
4.4 All students will develop reasoning ability and will become self-reliant, independent mathematical thinkers.	1-7B, 2-9B, 4-3B, 5-3A, 7-6B, 7-7A, 8-3B, 11-2
4.5 All students will regularly and routinely use calculators, computers, manipulatives, and other mathematical tools to enhance mathematical thinking, understanding, and power.	1-2, 1-3, 2-6B, 3-5, 5-1A, 8-1B
4.6 All students will develop number sense and an ability to represent numbers in a variety of forms and use numbers in diverse situations.	3-2, 3-4, 6-5, 6-8
4.7 All students will develop spatial sense and an ability to use geometric properties and relationships to solve problems in mathematics and in everyday life.	5-1, 5-2A, 5-2, 5-6
4.8 All students will understand, select, and apply various methods of performing numerical operations.	1-3, 2-3, 2-5, 2-7, 2-8, 7-1, 7-3, 7-8
4.9 All students will develop an understanding of and will use measurement to describe and analyze phenomena.	11-7

STANDARDS	LESSON REFERENCES
4.10 All students will use a variety of estimation strategies and recognize situations in which estimation is appropriate.	3-6, 9-2A, 9-2
4.11 All students will develop an understanding of patterns, relationships, and functions and will use them to represent and explain real-world phenomena.	1-8, 6-1, 6-6, 7-5A, 12-4B
4.12 All students will develop an understanding of statistics and probability and will use them to describe sets of data, model situations, and support appropriate inferences and arguments.	4-3B, 4-8, 6-6, 12-5, 12-6, 12-7A, 12-7
4.13 All students will develop an understanding of algebraic concepts and processes and will use them to represent and analyze relationships among variable quantities and to solve problems.	1-3, 1-3B, 1-4, 1-5, 1-6, 10-1, 10-1B
4.14 All students will apply the concepts and methods of discrete mathematics to model and explore a variety of practical situations.	2-6, 2-6B, 2-10, 7-5, 7-5B, 9-6
4.15 All students will develop an understanding of the conceptual building blocks of calculus and will use them to model and analyze natural phenomena.	7-5, 7-5B, 7-6B
4.16 All students will demonstrate high levels of mathematical thought through experiences which extend beyond traditional computation, algebra, and geometry.	1-2, 5-2, 6-8, 9-2