

MATH Connections Correlation to Rhode Island Standards

Correlation Key:

“X” Coverage = Secondary concept of the activity or problem. Students gain a basic understanding or introduction of the concept.

“XX” In-depth coverage = Primary concept that is the focus of the activity or problem. Students gain thorough understanding of the concept.

	MATH Connections 1A				MATH Connections 1B				MATH Connection 2A			MATH Connections 2B			MATH Connections 3A				MATH Connections 3B			
	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8

Grade 9 and 10

Process Standards

MATHEMATICS as PROBLEM SOLVING

Students will engage in problem solving to construct their own understanding, so that by the end of grade 10 they will:

* Apply integrated technological and non-technological problem-solving strategies to solve problems.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
------------------------------------------------------------------------------------------------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

MATHEMATICS as COMMUNICATION

Students will engage in communication to construct their own understanding, so that by the end of grade 10 they will:

* Express generalizations discovered through investigations by using mathematical language.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
* Communicate mathematical ideas, processes, concepts, and solutions through the use of technology.	XX	XX	XX	XX	XX	XX	XX		X	X	XX	X	XX	XX	XX	X	X	XX			XX	

MATHEMATICS as REASONING

Students will engage in reasoning to construct their own understanding, so that by the end of grade 10 they will:

* Recognize the power of reasoning as a persuasive tool.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
* Develop and validate conjectures.		XX	XX	X	X	X	X	X	XX	XX	XX	XX	XX		XX	XX	X	X	X	XX	XX	XX

MATHEMATICS as CONNECTIONS

Students will engage in making connections to construct their own understanding, so that by the end of grade 10 they will:

* Recognize and apply different representations for the same concept.		XX	XX	XX	XX	XX	X	X	XX	X	X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	
* Apply procedures used in one problem situation to other similar situations.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX

Correlation Key: "X" Coverage = Secondary concept of the activity or problem. Students gain a basic understanding or introduction of the concept. "XX" In-depth coverage = Primary concept that is the focus of the activity or problem. Students gain thorough understanding of the concept.	MATH Connections 1A				MATH Connections 1B				MATH Connection 2A			MATH Connections 2B			MATH Connections 3A				MATH Connections 3B			
	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8
Content Standards																						
NUMBER SENSE AND NUMBER SYSTEMS																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 10 they will:																						
* Have an intuitive understanding of the real number system.	X	XX	XX																		XX	
* Apply properties of the real number system.	X	XX	X	X	X	X	X	X	X	X	X	X	XX	X	X	X	X	X	X	XX	XX	
COMPUTATION and ESTIMATION																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 10 they will:																						
* Develop proficiency with addition, subtraction, multiplication, and division of real numbers.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
* Apply a variety of computational methods and estimation techniques in finding solutions.	XX	XX	XX	XX	XX	X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	
* Demonstrate the ability to select and use appropriate technology (spreadsheets, databases, graphing calculators).	XX	XX	XX	XX	XX	XX		XX		X	X	XX	X	XX	XX	XX	X		X		XX	
MEASUREMENT																						
Through problem solving situations, all students will construct their own understanding, so that by the end of grade 10 they will:																						
* Select and apply appropriate techniques and tools to measure quantities and recognize relationships among precision, accuracy, and error of measurement.		XX	X						XX	XX	XX	XX	XX		X							XX
STATISTICS and PROBABILITY																						
Through problem solving situations, all students will construct their own understanding, so that by the end of grade 10 they will:																						
* Use and interpret sampling techniques.	XX			XX				XX											XX			
* Apply concepts of central tendency, variability, and correlation.	XX			XX	XX			XX				X							XX			
* Generate and interpret normally distributed data.																			XX			
* Apply the laws of chance to predict and communicate probable events.								XX											XX		XX	
* Develop convincing arguments and inferences.	XX			XX				XX											XX		X	

Correlation Key: "X" Coverage = Secondary concept of the activity or problem. Students gain a basic understanding or introduction of the concept. "XX" In-depth coverage = Primary concept that is the focus of the activity or problem. Students gain thorough understanding of the concept.	MATH Connections 1A				MATH Connections 1B				MATH Connection 2A			MATH Connections 2B			MATH Connections 3A				MATH Connections 3B			
	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8
* Recognize the importance of statistical claims (hypotheses).	X			XX														XX		X		
PATTERNS, RELATIONS, and ALGEBRA																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 10 they will:																						
* Represent situations that involve variable quantities with expressions, equations, and inequalities.		XX	XX	XX	XX	XX	X		XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	
* Use tables or graphs to interpret expressions, equations, and inequalities.		XX	XX	XX	XX	XX	X		XX	X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	
* Solve equations and inequalities.		XX	XX	XX	XX	XX	X		XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	
* Model real-world situations with a variety of patterns and relations.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
* Recognize and model generalities of patterns.	XX	XX	XX	XX	XX	XX	XX	X	XX	X	XX	XX	XX	X	XX	XX	XX	X	X	XX	XX	XX
* Have an intuitive understanding of algebraic procedures.		XX	X	X	X	X	X		XX	X	X	X	X	XX	XX	XX	X	X	X	XX	X	
GEOMETRY																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 10 they will:																						
* Identify congruent and similar figures, using transformations.									X	X			X							XX		
* Investigate properties of figures, using transformations, coordinates, and vectors.									XX	XX		XX	XX						XX			
* Represent problem situations with geometric models.									XX	XX		XX	XX	XX	X				XX			
* Investigate the properties and behaviors of geometric figures through algebraic patterns.									XX	XX		XX	XX	XX	XX				XX			

Correlation Key: "X" Coverage = Secondary concept of the activity or problem. Students gain a basic understanding or introduction of the concept. "XX" In-depth coverage = Primary concept that is the focus of the activity or problem. Students gain thorough understanding of the concept.	MATH Connections 1A				MATH Connections 1B				MATH Connection 2A			MATH Connections 2B			MATH Connections 3A				MATH Connections 3B			
	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8
Grades 11 and 12																						
Process Standards																						
MATHEMATICS as PROBLEM SOLVING																						
Students will engage in problem solving to construct their own understanding so that by the end of grade 12 they will:																						
* Use sophisticated as well as basic problem-solving approaches to investigate, understand, and develop conjectures about mathematical concepts.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
MATHEMATICS as COMMUNICATION																						
Students will engage in communication to construct their own understanding so that by the end of grade 12 they will:																						
* Provide clarifying and extending questions related to mathematical conjectures.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
MATHEMATICS as REASONING																						
Students will engage in reasoning to construct their own understanding so that by the end of grade 12 they will:																						
* Formulate counter examples to support logical arguments.	X	X	X	X	X	XX	X	X	X	XX	XX	XX	X		X			X		XX	XX	XX
* Construct simple valid arguments based on logic.	X	X	X	X	X	X	X	X	X	X	X	XX	XX	X	X	X	X	X	X	XX	XX	XX
MATHEMATICS as CONNECTIONS																						
Students will engage in making connections to construct their own understanding so that by the end of grade 12 they will:																						
* Use and extend the connections among mathematical topics.	X	X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	X	XX	XX	XX	XX	XX	XX	XX
* Use and extend the connections between mathematics and other disciplines.	XX	X	XX	X	X	XX	X	X	XX	X	X	X	X	X	XX	XX	XX	X	X	XX	X	XX
* Use and extend the connections between mathematics and the world of work.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX

Correlation Key: "X" Coverage = Secondary concept of the activity or problem. Students gain a basic understanding or introduction of the concept. "XX" In-depth coverage = Primary concept that is the focus of the activity or problem. Students gain thorough understanding of the concept.	MATH Connections 1A				MATH Connections 1B				MATH Connection 2A			MATH Connections 2B			MATH Connections 3A				MATH Connections 3B			
	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8
Content Standards																						
Number Sense and Number Systems																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 12 they will:																						
* Have an intuitive understanding of the concept of limits and infinity.		X											XX									XX
Computation and Estimation																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 12 they will:																						
* Solve problems by integrating computational methods and estimation techniques with technology.	X		XX	XX	XX	XX		XX		X	X	XX		X	XX	X						XX
MEASUREMENT																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 12 they will:																						
* Select and apply trigonometric functions to solve problems.											XX	X	X					XX				
STATISTICS and PROBABILITY																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 12 they will:																						
* Use curve fitting to predict from data.				XX	XX							X			XX	XX		XX				
* Understand and use experimental and theoretical probability.								XX										XX		XX		
* Use a graphing calculator to explore statistics.	XX			XX	XX			X				X										
* Use technology to generate random variables.								XX														
* Have an intuitive understanding of statistics and probability.	XX			XX				XX										XX				
PATTERNS, RELATIONS, and ALGEBRA																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 12 they will:																						

Correlation Key: "X" Coverage = Secondary concept of the activity or problem. Students gain a basic understanding or introduction of the concept. "XX" In-depth coverage = Primary concept that is the focus of the activity or problem. Students gain thorough understanding of the concept.	MATH Connections 1A				MATH Connections 1B				MATH Connection 2A			MATH Connections 2B			MATH Connections 3A				MATH Connections 3B			
	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8
* Use a variety of techniques to solve linear systems.		X			XX	X				X				XX					XX			
* Use tables or graphs to investigate the properties and behaviors of patterns and relations.		XX	XX	X	X	X						X	X		XX	XX	XX		X		XX	
* Demonstrate the properties and behaviors of patterns and relations.		XX	XX	X	X	XX	XX	X	XX	XX		X	X		X	X	X		X		XX	
* Analyze the effects of change on patterns and relations.		XX	XX			X			XX	XX											XX	
GEOMETRY																						
Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 12 they will:																						
* Deduce properties of, and relationships between figures, given assumptions.									XX	XX		XX	XX						XX			XX
* Extend two-dimensional ideas into spatial sense.													XX		X							XX
* Investigate and compare various geometries																						