MATH *Connections* Correlation to the Washington Mathematics GLE, Grades 9-10

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 Connections 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 9/10																						
EALR 1: The student understands and applies the concepts and procedures of mathematics.																						
Component 1.1: Understand and apply concepts and procedures from number sense.																						
Number and numeration																						
1.1.1 Understand the concept of number. W	XX	X	XX		XX	XX	XX		XX						X	X					XX	
1.1.2 Understand sequential relationships among whole numbers. W						XX															XX	
Computation																						
1.1.6 Apply strategies to compute fluently with rational numbers in all forms including whole number exponents. W	XX	XX	XX	XX	XX	XX		XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	
Estimation																						
1.1.8 Apply estimation strategies to determine the reasonableness of results in situations involving multi-step computations with rational numbers including whole number powers and square and cube roots. W		XX	XX	XX	XX	XX			XX	XX	XX	XX	XX	XX	XX	XX		X	XX	XX	XX	
Component 1.2: Understand and apply concepts and procedures from measurement.																						
Attributes, units, and systems																						
1.2.1 Analyze how changes in one or two dimensions of an object affect perimeter, area, surface area, and volume. W						X			XX	XX		XX	XX		X				XX			
1.2.3 Understand how to convert units of measure within systems (U.S. or metric). W		X	XX			XX			XX	X	X	X	X		X							
Procedures, precision, and estimation																						

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1.2.5 Apply formulas to calculate measurements of right prisms or right circular cylinders. W													**XX**									
1.2.6 Understand and apply strategies to obtain reasonable measurements at an appropriate level of precision. W									**XX**	**XX**	**XX**	**XX**	**XX**									
Component 1.3: Understand and apply concepts and procedures from geometric sense.																						
Properties and relationships																						
1.3.1 Understand the relationship among characteristics of one-dimensional, two-dimensional, and three-dimensional figures. W									**XX**	**XX**	**XX**	**XX**	**XX**						**X**	**XX**		**XX**
1.3.2 Apply understanding of geometric properties and relationships. W									**XX**	**XX**	**XX**	**XX**	**XX**						**X**	**XX**		**XX**
Locations and transformations																						
1.3.3 Apply understanding of geometric properties and location of points to figures. W			**X**							**XX**	**XX**	**XX**	**XX**								**X**	
1.3.4 Apply understanding of multiple transformations. W												**XX**										
Component 1.4: Understand and apply concepts and procedures from probability and statistics																						
Probability																						
1.4.1 Understand the concept of conditional probability. W																	**XX**					
1.4.2 Apply understanding of dependent and independent events to calculate probabilities. W																	**XX**					
Statistics																						
1.4.3 Apply appropriate methods and technology to collect data or evaluate methods used by others for a given research questions. W	**XX**							**XX**				**X**					**XX**					

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1.4.4 Understand and apply techniques to find the equation for a reasonable linear model. W				**XX**	**XX**							**X**			**X**	**XX**						
1.4.5 Analyze a linear model to judge its appropriateness for a data set. W				**XX**	**XX**											**X**						
1.4.6 Apply understanding of statistics to make, analyze, or evaluate a statistical argument. W	**XX**			**XX**	**XX**													**XX**				
Component 1.5: Understand and apply concepts and procedures from algebraic sense.																						
Patterns, functions, and other relations																						
1.5.1 Apply processes that use repeated addition (linear) or repeated multiplication (exponential). W		**XX**	**XX**		**XX**	**XX**	**XX**								**XX**	**XX**		**XX**				
1.5.2 Analyze a pattern, table, graph, or model involving repeated addition (linear) or repeated multiplication (exponential) model to write an equation or rule. W		**XX**	**XX**		**XX**	**XX**	**XX**								**XX**	**XX**						
Symbols and representations																						
1.5.4 Apply understanding of equations, tables, or graphs to represent situations involving relationships that can be written as repeated addition (linear) or repeated multiplication (exponential). W		**XX**	**XX**	**X**	**XX**	**XX**						**X**			**XX**	**XX**			**XX**			
Evaluating and solving																						
1.5.5 Apply procedures to simplify expressions. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**			**XX**	**X**	**X**	**X**	**XX**	**XX**	**XX**	**XX**			**XX**	**XX**	**XX**	
1.5.6 Apply procedures to solve equations and systems of equations. W		**XX**	**XX**	**XX**	**XX**	**XX**	**X**		**XX**	**XX**	**XX**		**XX**	**XX**	**XX**	**XX**	**X**		**XX**	**XX**	**X**	
EALR 2: The student uses mathematics to define and solve problems.																						
Component 2.1: Investigate situations.																						
2.1.1 Analyze a situation to define a problem. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**

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Component 2.2: Apply strategies to construct solutions.																						
2.2.1 Apply strategies, concepts, and procedures to devise a plan to solve the problem. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**
2.2.2 Apply mathematical tools to solve the problem. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**
EALR 3: The student uses mathematical reasoning.																						
Component 3.1: Analyze information.																						
3.1.1. Synthesize information from multiple sources in order to answer questions. W	**XX**	**X**	**X**	**XX**	**X**	**X**		**XX**	**X**	**X**	**X**	**XX**	**XX**		**X**	**X**	**XX**	**XX**		**X**	**X**	**X**
Component 3.2: Make predictions, inferences, conjectures, and draw conclusions.																						
3.2.1 Apply skill of conjecturing and analyze conjectures by formulating a proof or constructing a counter example. W	**X**	**X**	**X**	**X**			**X**		**XX**	**XX**		**XX**	**XX**	**X**						**XX**	**XX**	**XX**
3.2.2 Analyze information to draw conclusions and support them using inductive and deductive reasoning. W	**XX**			**XX**	**XX**				**XX**	**XX**		**XX**	**XX**							**XX**	**XX**	**XX**
3.2.3 Analyze procedures to determine appropriateness of claims and arguments. W	**XX**	**X**	**X**	**XX**	**XX**	**X**	**X**	**X**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**X**	**XX**	**XX**	**XX**	**XX**	**XX**
Component 3.3: Verify results.																						
3.3.1 Analyze results using inductive and deductive reasoning. W									**XX**	**XX**		**XX**	**XX**							**XX**	**XX**	**XX**
3.3.2 Analyze thinking and mathematical ideas using models, known facts, patterns, relationships, counter examples, or proportional reasoning. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**
EALR 4: The student communicates knowledge and understanding in both everyday and mathematical language.																						
Component 4.1: Gather information.																						
4.1.1 Understand how to develop or apply an efficient system for collecting mathematical information for a given purpose. W	**XX**							**XX**				**X**						**XX**				

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4.1.2 Synthesize mathematical information for a given purpose from multiple, self-selected sources. W	**XX**							**X**	**X**			**X**						**X**				
Component 4.2: Organize, represent, and share information.																						
4.2.1 Analyze mathematical information to organize, clarify, and refine an argument. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**
4.2.2 Understand how to express ideas and situations using mathematical language and notation. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**
EALR 5: The student understands how mathematical ideas connect within mathematics, to other subject areas, and to real-life situations.																						
Component 5.1: Relate concepts and procedures within mathematics.																						
5.1.1 Apply multiple mathematical concepts and procedures in a given problem or situation. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**X**
5.1.2 Understand how use different mathematical models and representations in the same situation. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**
Component 5.2: Relate mathematical concepts procedures to other disciplines.																						
5.2.1 Analyze mathematical patterns and ideas to extend mathematical thinking and modeling in other disciplines. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	
5.2.2 Know contributions of individuals and cultures to the development of mathematics. W											**X**	**XX**	**XX**								**XX**	**XX**
Component 5.3: Relate mathematical concepts and procedures to real-world situations.																						
5.3.1 Understand situations in which mathematics can be used to solve problems with local, national, or international implications. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	
5.3.2 Understand the mathematical knowledge and training requirements for occupational/career areas of interest. W	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**	**XX**