

LAYING THE FOUNDATION / COMMON CORE STANDARDS CROSSWALK
LTF Mathematics – Level Three
Modules 9-12

DRAFT



LAYING THE FOUNDATION

Building Academic Excellence

LAYING THE FOUNDATION / COMMON CORE STANDARDS CROSSWALK
LTF Mathematics – Module Nine

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Middle Grades	Maximizing Area	Ratios and Proportional Relationships	6.RP.3.a			Optimization: Area and Volume Applications Free Response Multiple Choice Quiz
Middle Grades	We All Scream for Ice Cream	Ratios and Proportional Relationships	6.RP.1 6.RP.2 6.RP.3.b 6.RP.3.d 7.RP.3			Optimization: Area and Volume Applications Free Response Multiple Choice Quiz
		Geometry	8.G.9			
Middle Grades	Triangle Area Problem	Number System	6.NS.6.c 7.NS.2.c 7.NS.3			Optimization: Area and Volume Applications Free Response Multiple Choice Quiz
		Expressions and Equations	6.EE.2.a 6.EE.9			
		Functions	8.F.5			
		Geometry	8.G.7			

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Middle Grades	Box It Up!	Number System	6.NS.1	Geometry: Geometric Measurement and Dimension	G-GMD.3	Optimization: Area and Volume Applications
		Geometry	6.G.2 7.G.6	Geometry: Modeling with Geometry	G-MG.3	Free Response Multiple Choice Quiz
		Statistics and	8.SP.4			
Algebra 1	Quadratic Optimization			Algebra: Creating Equations	A-CED.1 A-CED.4	Optimization: Area and Volume Applications
				Functions: Interpreting Functions	F-IF.4 F-IF.5 F-IF.7.a	Free Response Multiple Choice Quiz
				Functions: Building Functions	F-BF.1	
Geometry	Optimization: Area and Volume Applications			Algebra: Creating Equations	A-CED.2 A-CED.3	Optimization: Area and Volume Applications
				Functions: Interpreting Functions	F-IF.4 F-IF.5 F-IF.7.	Free Response Multiple Choice Quiz
				Functions: Building Functions	F-BF.1	

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Geometry	Optimization: Volume Applications			Functions: Interpreting Functions	F-IF.2 F-IF.4 F-IF.7	Optimization: Area and Volume Applications Free Response Multiple Choice Quiz
				Functions: Building Functions	F-BF.1	
				Geometry: Geometric Measurement and Dimension	G-GMD.3	
Geometry	Area as a Function of an Angle			Algebra: Creating Equations	A-CED.2 A-CED.3	Optimization: Area and Volume Applications Free Response Multiple Choice Quiz
				Geometry: Similarity, Right Triangles, and	G-SRT.7 G-SRT.8	
				Functions: Building Functions	F-BF.1	
				Functions: Linear, Quadratic, and	F-LE.1	
				Functions: Trigonometric Functions	F-TF.3 F-TF.7	

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Algebra 2	Rational Function Optimization Problem			Algebra: Seeing Structure in Expressions	A-SSE.3	Optimization: Area and Volume Applications Free Response Multiple Choice Quiz
				Algebra: Reasoning with Equations and Inequalities	A-REI.10	
				Functions: Interpreting Functions	F-IF.2 F-IF.4 F-IF.5 F-IF.7.d	
				Functions: Building Functions	F-BF.1	
Pre-Calculus	Writing Functions- Finding Extrema			Algebra: Creating Equations	A-CED.2 A-CED.3	Optimization: Area and Volume Applications Free Response Multiple Choice Quiz
				Functions: Interpreting Functions	F-IF.2 F-IF.4	
				Functions: Building Functions	F-BF.1	

LAYING THE FOUNDATION / COMMON CORE STANDARDS CROSSWALK
LTF Mathematics – Module Ten

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Middle Grades	Metric and Customary Measures	Geometry	6.G.1 6.G.2 6.G.4 7.G.1 7.G.2 7.G.3 7.G.4 7.G.5 7.G.6 8.G.7 8.G.9			Bivariate Data Free Response Bivariate Data Multiple Choice Quiz
Algebra 1	Linear Regression with Coded Data			Statistics and Probability: Interpreting Categorical and Quantitative Data	S-ID.6 S-ID.6.a S-ID.6.c S-ID.7	Bivariate Data Free Response Bivariate Data Multiple Choice Quiz
Algebra 1	Study of Olympic Winning Times			Statistics and Probability: Interpreting Categorical and Quantitative Data	S-ID.6 S-ID.6.a S-ID.6.c S-ID.7	Bivariate Data Free Response Bivariate Data Multiple Choice Quiz

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Algebra 1	Population Growth			Algebra: Creating Equations	A-CED.1 A-CED.2	Bivariate Data Free Response Bivariate Data Multiple Choice Quiz
				Algebra: Reasoning with Equations and Functions: Interpreting Functions	A-REI.10 F-IF.4 F-IF.7.a F-IF.7.e	
				Functions: Building Functions	F-BF.1.a	
				Functions: Linear, Quadratic, and Statistics and Probability: Interpreting Categorical	F-LE.1 F-LE.2 S-ID.6.a S-ID.6.b S-ID.6.c	
Algebra 2	Collecting Linear and Quadratic Data with Cardboard Tubes			Functions: Interpreting Functions	F-IF.2 F-IF.6 F-IF.7.a	Bivariate Data Free Response Bivariate Data Multiple Choice Quiz
				Functions: Building Functions	F-BF.1.a F-BF.1.c	
				Geometry: Similarity, Right Triangles, and Trigonometry	G-SRT.2 G-SRT.5	

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Pre-Calculus	Rumor Has It			Statistics and Probability:	S-ID.6 S-ID.6.a	Bivariate Data Free Response
				Functions: Interpreting Functions	F-IF.4 F-IF.5	Bivariate Data Multiple Choice Quiz
				Functions: Linear, Quadratic, and Exponential Models	F-LE.5	
Pre-Calculus	Curvilinear Data Activity 1			Functions: Linear, Quadratic, and Exponential Models	F-LE.2 F-LE.3 F-LE.5	Bivariate Data Free Response
				Statistics and Probability: Interpreting Categorical and Quantitative Data	S-ID.6 S-ID.6.a S-ID.6.b S-ID.6.c	Bivariate Data Multiple Choice

LAYING THE FOUNDATION / COMMON CORE STANDARDS CROSSWALK
LTF Mathematics – Module Eleven

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Middle Grades	Transformations and Tessellations	Geometry	7.G.2 8.G.1 8.G.2 8.G.3 8.G.4			Analysis of Functions: Transformations Free Response Analysis of Functions: Transformations Multiple Choice Quiz
Middle Grades	Pictures and Transformations	Number System	6.NS.5 6.NS.8			Analysis of Functions: Transformations Free Response Analysis of Functions: Transformations Multiple Choice Quiz
		Geometry	6.G.3 7.G.2 8.G.1.a 8.G.1.c 8.G.3			
Middle Grades	Water Park	Ratios and Proportional Relationships	6.RP.2 6.RP.3.a			Analysis of Functions: Transformations Free Response Analysis of Functions: Transformations Multiple Choice Quiz
		Number System	6.NS.8			

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Algebra 1	Transformations of Linear Functions	Ratios and Proportional Relationships	7.RP.1 7.RP.2.a 7.RP.2.d			Analysis of Functions: Transformations Free Response Analysis of Functions: Transformations Multiple Choice Quiz
Algebra 1	Linear Reflections	Expressions and Equations Functions	8.EE.5 8.F.2 8.F.4 8.F.5			Analysis of Functions: Transformations Free Response Analysis of Functions: Transformations Multiple Choice Quiz
Geometry	Parent Function Charades			Functions: Building Functions Geometry: Congruence	F-BF.3 G-CO.2 G-CO.4	Analysis of Functions: Transformations Free Response Analysis of Functions: Transformations Multiple Choice Quiz

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Geometry	Transformations of Piecewise Functions			Functions: Building Functions	F-BF.3	Analysis of Functions: Transformations Free Response
				Geometry: Congruence	G-CO.2 G-CO.4 G-CO.5 G-CO.6	
Algebra 2	Graphical Transformations			Functions: Building Functions	F-BF.3	Analysis of Functions: Transformations Free Response Analysis of Functions: Transformations Multiple Choice Quiz

DRAFT

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Algebra 2	Transformations in Numerical Data			Algebra: Seeing Structure in Expressions	A-SSE.1.a A-SSE.2	Analysis of Functions: Transformations Free Response
				Algebra: Creating Equations	A-CED.1 A-CED.4	
				Algebra: Reasoning with Equations and Inequalities	A-REI.1	
				Functions: Interpreting Functions	F-IF.1 F-IF.2 F-IF.4 F-IF.9	Analysis of Functions: Transformations Multiple Choice Quiz
				Functions: Building Functions	F-BF.1.b F-BF.3	
				Geometry: Congruence	G-CO.2 G-CO.6	
Algebra 2	Transformation Story			Functions: Building Functions	F-BF.3	Analysis of Functions: Transformations Free Response
				Geometry: Congruence	G-CO.2 G-CO.4 G-CO.5	
						Analysis of Functions: Transformations Multiple Choice Quiz

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Pre-Calculus	Investigating Functions			Algebra: Arithmetic with Polynomials and Rational Expressions	A-APR.3	Analysis of Functions: Transformations Free Response Analysis of Functions: Transformations Multiple
				Functions: Interpreting Functions	F-IF.2 F-IF.4 F-IF.7.c	

DRAFT

LAYING THE FOUNDATION / COMMON CORE STANDARDS CROSSWALK
LTF Mathematics – Module Twelve

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Middle Grades	Introduction to Related Rates using Area	Ratios and Proportional Relationships	6.RP.3.a 6.RP.3.b 6.RP.3.d 7.RP.1 7.RP.2.b			Rate of Change: Related Rates Free Response
		Number System	6.NS.2 6.NS.5 7.NS.2.d			Rate of Change: Related Rates Multiple Choice Quiz
		Geometry	6.G.1 6.G.3 7.G.2 7.G.4			
		Expressions and Equations	8.EE.5 8.EE.7.b			
		Functions	8.F.2 8.F.3 8.F.4			

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Middle Grades	Introduction to Related Rates using Volume	Ratios and Proportional Relationships	6.RP.1 7.RP.1 7.RP.2 7.RP.2.d			Rate of Change: Related Rates Free Response Rate of Change: Related Rates Multiple Choice Quiz
		Expressions and Geometry	8.EE.5 7.G.6 8.G.9			
		Statistics and Probability	8.SP.1 8.SP.2 8.SP.3			
Middle Grades	Introduction to Related Rates Using Right Triangles	Ratios and Proportional Relationships	6.RP.2 6.RP.3.a 6.RP.3.b 6.RP.3.d 7.RP.1 7.RP.2.a 7.RP.2.d 7.RP.2.d			Rate of Change: Related Rates Free Response Rate of Change: Related Rates Multiple Choice Quiz
		Expressions and Equations	8.EE.2 8.EE.5 8.EE.8.a			
		Functions	8.F.2			
		Geometry	8.G.7			

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Algebra 1	Literal Equations - Geometric Formulas	Expressions and Equations	6.EE.2 6.EE.9	Number and Quantity: Quantities	N-Q.2	Rate of Change: Related Rates Free Response
				Algebra: Seeing Structure in Expressions	A-SSE.1	
				Algebra: Creating Equations	A-CED.4	
				Functions: Interpreting Functions	F-IF.8	
Algebra 2	Literal Equations			Algebra: Seeing Structure in Expression	A-SSE.3	Rate of Change: Related Rates Free Response
				Functions: Interpreting Functions	F-IF.2 F-IF.4 F-IF.8	
				Functions: Building Functions	F-BF.1 F-BF.1.a	
				Geometry: Geometric Measurement and Dimension	G-GMD.3	

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Algebra 1	Pythagorean Theorem in Motion			Functions: Interpreting Functions	F-IF.5 F-IF.6	Rate of Change: Related Rates Free Response
				Geometry: Similarity, Right Triangles, and Trigonometry	G-SRT.6	Rate of Change: Related Rates Multiple Choice Quiz
				Statistics and Probability: Interpreting Categorical and Quantitative Data	S-ID.6 S-ID.6.a S-ID.7	
Algebra 1	Fill It up, Please - Part III			Algebra: Reasoning with Equations and Inequalities	A-REI.10	Rate of Change: Related Rates Free Response Rate of Change: Related Rates Multiple Choice Quiz

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Geometry	Related Rates - Triangle Applications (GE)			Number and Quantity: Quantities	N-Q.1 N-Q.2 N-Q.3	Rate of Change: Related Rates Free Response
				Algebra: Creating Equations	A-CED.1 A-CED.2 A-CED.3 A-CED.4	
				Algebra: Reasoning with Equations and Inequalities	A-REI.3 A-REI.4.b	
				Functions: Interpreting Functions	F-IF.2 F-IF.4 F-IF.5 F-IF.6	
				Functions: Building Functions	F-BF.1.a	
				Functions: Linear, Quadratic, and Exponential Models	F-LE.1.b F-LE.2 F-LE.5	
				Geometry: Similarity, Right Triangles, and Trigonometry	G-SRT.5 G-SRT.8	

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Geometry	Related Rates - Area and Volume Applications (GE)			Number and Quantity: Quantities	N-Q.1	Rate of Change: Related Rates Free Response
				Functions: Interpreting Functions	F-IF.2 F-IF.5 F-IF.6	
				Functions: Building Functions	F-BF.1	
				Geometry: Geometric Measurement and Dimension	G-GMD.3	
				Statistics and Probability: Interpreting Categorical and Quantitative Data	S-ID.6 S-ID.6.a S-ID.6.c S-ID.7	

DRAFT

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Algebra 2	Related Rates - Area and Volume Applications (A2)			Algebra: Seeing Structure in Expression	A-SSE.1	Rate of Change: Related Rates Free Response
				Algebra: Creating Equations	A-CED.2 A-CED.4	
				Functions: Interpreting Functions	F-IF.5 F-IF.6 F-IF.8	
				Functions: Building Functions	F-BF.1	
				Geometry: Geometric Measurement and Dimension	G-GMD.4	

DRAFT

Grade/ Course	Lesson Title	Middle Grades		High School		Assessment
		Critical Areas:	Standards:	Critical Areas:	Standards:	
Pre-Calculus	Related Rates - Triangle Applications (PC)			Number and Quantity: Quantities	N-Q.1 N-Q.2	Rate of Change: Related Rates Free Response
				Algebra: Seeing Structure in Expression	A-SSE.3	
				Algebra: Creating Equations	A-CED.2	
				Algebra: Reasoning with Equations and Inequalities	A-REI.3	
				Functions: Interpreting Functions	F-IF.6 F-IF.7 F-IF.8	
				Functions: Linear, Quadratic, and Exponential Models	F-LE.1.b	
				Geometry: Similarity, Right Triangles, and Trigonometry	G-SRT.7 G-SRT.8	