

CCSS INTEGRATED PATHWAY MATH III CONTENT MAP

Unit 1: Inferences and Conclusions from Data			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Using the Normal Curve		
	1.1.1	Normal Distributions and the 68–95–99.7 Rule	S-ID.4★
	1.1.2	Standard Normal Calculations	S-ID.4★
	1.1.3	Assessing Normality	S-ID.4★
Lesson 2	Populations Versus Random Samples and Random Sampling		
	1.2.1	Differences Between Populations and Samples	S-IC.1★
	1.2.2	Simple Random Sampling	S-IC.2★
	1.2.3	Other Methods of Random Sampling	S-IC.2★
Lesson 3	Surveys, Experiments, and Observational Studies		
	1.3.1	Identifying Surveys, Experiments, and Observational Studies	S-IC.3★
	1.3.2	Designing Surveys, Experiments, and Observational Studies	S-IC.3★
Lesson 4	Estimating Sample Proportions and Sample Means		
	1.4.1	Estimating Sample Proportions	S-IC.4★
	1.4.2	The Binomial Distribution	S-IC.4★
	1.4.3	Estimating Sample Means	S-IC.4★
	1.4.4	Estimating with Confidence	S-IC.4★
Lesson 5	Comparing Treatments and Reading Reports		
	1.5.1	Evaluating Treatments	S-IC.5★
	1.5.2	Designing and Simulating Treatments	S-IC.5★
	1.5.3	Reading Reports	S-IC.6★
Lesson 6	Making and Analyzing Decisions		
	1.6.1	Making Decisions	S-MD.6★ (+)
	1.6.2	Analyzing Decisions	S-MD.7★ (+)
Unit 2A: Polynomial Relationships			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Polynomial Structures and Operating with Polynomials		
	2A.1.1	Structures of Expressions	A-SSE.1a★
	2A.1.2	Adding and Subtracting Polynomials	A-APR.1
	2A.1.3	Multiplying Polynomials	A-APR.1

Lesson 2	Proving Identities		
	2A.2.1	Polynomial Identities	A–SSE.1b★ A–SSE.2 A–APR.4
	2A.2.2	Complex Polynomial Identities	N–CN.8 (+) A–SSE.1b★ A–SSE.2 A–APR.4
	2A.2.3	The Binomial Theorem	A–SSE.1a★ A–SSE.1b★ A–SSE.2 A–APR.4 A–APR.5 (+)
Lesson 3	Graphing Polynomial Functions		
	2A.3.1	Describing End Behavior and Turns	F–IF.7c★
	2A.3.2	The Remainder Theorem	A–APR.2
	2A.3.3	Finding Zeros	A–APR.3 N–CN.9 (+) F–IF.7c★
	2A.3.4	The Rational Root Theorem	A–APR.3
Lesson 4	Solving Systems of Equations with Polynomials		
	2A.4.1	Solving Systems of Equations Graphically	A–REI.11★
Lesson 5	Geometric Series		
	2A.5.1	Geometric Sequences	A–SSE.4★
	2A.5.2	Sum of a Finite Geometric Series	A–SSE.4★
	2A.5.3	Sum of an Infinite Geometric Series	A–SSE.4★
Unit 2B: Rational and Radical Relationships			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Operating with Rational Expressions		
	2B.1.1	Structures of Rational Expressions	A–SSE.1a★ A–SSE.1b★ A–SSE.2
	2B.1.2	Adding and Subtracting Rational Expressions	A–APR.7 (+) A–SSE.2
	2B.1.3	Multiplying Rational Expressions	A–APR.7 (+) A–SSE.2
	2B.1.4	Dividing Rational Expressions	A–APR.6 A–APR.7 (+) A–SSE.2
Lesson 2	Solving Rational and Radical Equations		
	2B.2.1	Solving Rational Equations	A–REI.2
	2B.2.2	Solving Radical Equations	A–REI.2
	2B.2.3	Solving Systems of Equations	A–REI.11★

Unit 3: Trigonometry of General Triangles and Trigonometric Functions			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Radians and the Unit Circle		
	3.1.1	Radians	F-TF.1 F-TF.2
	3.1.2	The Unit Circle	F-TF.2
	3.1.3	Special Angles in the Unit Circle	F-TF.2
	3.1.4	Evaluating Trigonometric Functions	F-TF.2
Lesson 2	Trigonometry of General Angles		
	3.2.1	Proving the Law of Sines	G-SRT.9 (+) G-SRT.10 (+)
	3.2.2	Proving the Law of Cosines	G-SRT.10 (+)
	3.2.3	Applying the Laws of Sines and Cosines	G-SRT.11 (+)
Lesson 3	Graphs of Trigonometric Functions		
	3.3.1	Periodic Phenomena and Amplitude, Frequency, and Midline	F-TF.5★
	3.3.2	Using Trigonometric Functions to Model Periodic Phenomena	F-TF.5★
Unit 4A: Mathematical Modeling of Inverse, Logarithmic, and Trigonometric Functions			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Inverses of Functions		
	4A.1.1	Determining Inverses of Quadratic Functions	F-BF.4a
	4A.1.2	Determining Inverses of Other Functions	F-BF.4a
Lesson 2	Modeling Logarithmic Functions		
	4A.2.1	Logarithmic Functions as Inverses	F-BF.4a F-LE.4★
	4A.2.2	Common Logarithms	F-IF.8 F-LE.4★
	4A.2.3	Natural Logarithms	F-IF.8 F-LE.4★
	4A.2.4	Graphing Logarithmic Functions	F-IF.7e★
	4A.2.5	Interpreting Logarithmic Models	F-IF.4★ F-IF.5★ F-IF.6★
Lesson 3	Modeling Trigonometric Functions		
	4A.3.1	Graphing the Sine Function	F-IF.7e★
	4A.3.2	Graphing the Cosine Function	F-IF.7e★

Unit 4B: Mathematical Modeling and Choosing a Model

Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Creating Equations		
	4B.1.1	Creating Equations in One Variable	A–CED.1★
	4B.1.2	Representing and Interpreting Constraints	A–CED.3★
	4B.1.3	Rearranging Formulas	A–CED.4★
Lesson 2	Transforming a Model and Combining Functions		
	4B.2.1	Transformations of Parent Graphs	F–BF.3
	4B.2.2	Recognizing Odd and Even Functions	F–BF.3
	4B.2.3	Combining Functions	F–BF.1b★
Lesson 3	Comparing Properties Within and Between Functions		
	4B.3.1	Reading and Identifying Key Features of Real-World Situation Graphs	F–IF.4★ F–IF.5★ F–IF.6★
	4B.3.2	Calculating Average Rates of Change	F–IF.6★
	4B.3.3	Comparing Functions	F–IF.6★ F–IF.9
Lesson 4	Choosing a Model		
	4B.4.1	Linear, Exponential, and Quadratic Functions	A–CED.2★ F–IF.4★ F–IF.5★ F–BF.3
	4B.4.2	Piecewise, Step, and Absolute Value Functions	F–IF.4★ F–IF.5★ F–IF.7b★ F–BF.3
	4B.4.3	Square Root and Cube Root Functions	F–IF.4★ F–IF.5★ F–IF.7b★ F–BF.3
	Geometric Modeling		
	4B.5.1	Two-Dimensional Cross Sections of Three-Dimensional Objects	G–GMD.4 G–MG.1★
Lesson 5	4B.5.2	Density	G–MG.2★
	4B.5.3	Design	G–MG.3★