Standards Correlations

Each lesson in this North Carolina Math 4 program was written specifically to address the North Carolina Standard Course of Study (NCSCOS) for Mathematics. Each unit lists the standards covered in all the lessons, and each lesson lists the standards addressed in that particular lesson. In this section, you'll find a comprehensive list mapping the lessons to the NCSCOS.

Guide to North Carolina Standard Course of Study Annotation

As you use this program, you will come across a star symbol (★) included with the standards for some of the lessons and activities. This symbol is explained below.

Symbol: ⋆

Denotes: Modeling Standards

Modeling is best interpreted not as a collection of isolated topics but rather in relation to other standards. Making mathematical models is a Standard for Mathematical Practice, and specific modeling standards appear throughout the high school standards indicated by a star symbol (★).

From http://www.walch.com/CCSS/00003

NORTH CAROLINA MATH 4 STANDARDS CORRELATIONS

Unit 1: Building Mathematical Community with Parent Functions and Key Features			
Lesson	**Title**	**Standard(s)**	**Pages**
1.1	Reading and Identifying Key Features of Real-World Situation Graphs	NC.M3.F–IF.4★	U1-5
1.2	Transformations of Parent Graphs	NC.M3.F–BF.3	U1-54
1.3	Recognizing Odd and Even Functions	NC.M3.F–BF.3	U1-92

NORTH CAROLINA MATH 4 STANDARDS CORRELATIONS

Unit 2: Piecewise Functions, Composition of Functions, and Regression			
Lesson	**Title**	**Standard(s)**	**Pages**
2.1	Piecewise, Step, and Absolute Value Functions	NC.M4.AF.4.1, NC.M4.AF.4.2	U2-5
2.2	Composition of Functions	NC.M4.AF.1.1	U2-33
2.3	Evaluating Composite Functions in Various Forms	NC.M4.AF.1.2	U2-56
2.4	Linear, Exponential, and Quadratic Regression	NC.M4.AF.5.1	U2-81
2.5	Analyzing Residual Plots	NC.M4.AF.5.2	U2-112

NORTH CAROLINA MATH 4 STANDARDS CORRELATIONS

Unit 3: Logarithmic Functions			
Lesson	**Title**	**Standard(s)**	**Pages**
3.1	Inverses of Exponential and Logarithmic Functions	NC.M4.AF.3.1	U3-3
3.2	Common Logarithms	NC.M4.AF.3.1, NC.M4.AF.3.2	U3-26
3.3	Natural Logarithms	NC.M4.AF.3.1, NC.M4.AF.3.2	U3-48
3.4	Interpreting Logarithmic Models	NC.M4.AF.3.1, NC.M4.AF.3.2, NC.M4.AF.3.3	U3-81
3.5	Logarithmic Regression	NC.M4.AF.5.1	U3-111

NORTH CAROLINA MATH 4 STANDARDS CORRELATIONS

Unit 4: Trigonometry			
Lesson	**Title**	**Standard(s)**	**Pages**
4.1	Proving the Fundamental Pythagorean Identity	NC.M4.AF.2.1	U4-5
4.2	Proving the Law of Sines	NC.M4.AF.2.2	U4-28
4.3	Proving the Law of Cosines	NC.M4.AF.2.2	U4-65
4.4	Applying the Laws of Sines and Cosines	NC.M4.AF.2.2	U4-91
4.5	Key Features of Trigonometric Functions	NC.M4.AF.2.3	U4-123
4.6	Sinusoidal Regression	NC.M4.AF.5.1	U4-162

NORTH CAROLINA MATH 4 STANDARDS CORRELATIONS

Unit 5: Exploratory Data Analysis			
Lesson	**Title**	**Standard(s)**	**Pages**
5.1	Simple Random Sampling	NC.M4.SP.1.1, NC.M4.SP.1.2	U5-5
5.2	Sampling Methods and Sources of Bias	NC.M4.SP.1.1, NC.M4.SP.1.2, NC.M4.SP.1.3, NC.M4.SP.1.4	U5-42
5.3	Observational Studies, Surveys, and Experiments	NC.M4.SP.1.1, NC.M4.SP.1.3, NC.M4.SP.1.4	U5-71
5.4	Experimental Design	NC.M4.SP.1.1, NC.M4.SP.1.2, NC.M4.SP.1.3, NC.M4.SP.1.4	U5-113
5.5	Analyzing Data Visualizations	NC.M4.SP.1.4	U5-136

NORTH CAROLINA MATH 4 STANDARDS CORRELATIONS

Unit 6: Probability Distributions			
Lesson	**Title**	**Standard(s)**	**Pages**
6.1	Creating Graphs of Probability Distributions	NC.M4.SP.3.1, NC.M4.SP.3.3	U6-7
6.2	Expected Value	NC.M4.SP.3.1	U6-40
6.3	Normal Distributions and the 68–95–99.7 Rule	NC.M4.SP.3.3, NC.M4.SP.3.4	U6-63
6.4	Standard Normal Calculations	NC.M4.SP.3.3, NC.M4.SP.3.4	U6-99
6.5	Assessing Normality	NC.M4.SP.3.3, NC.M4.SP.3.4	U6-130
6.6	Developing Probability Distributions	NC.M4.SP.3.1, NC.M4.SP.3.3	U6-177
6.7	Using Probability Distributions to Evaluate Outcomes	NC.M4.SP.3.1	U6-202
6.8	The Binomial Distribution	NC.M4.SP.3.2	U6-221

NORTH CAROLINA MATH 4 STANDARDS CORRELATIONS

Unit 7: Statistical Inference			
Lesson	**Title**	**Standard(s)**	**Pages**
7.1	Confidence in Sample Statistics	NC.M4.SP.2.2, NC.M4.SP.2.3	U7-3
7.2	Estimating with Confidence	NC.M4.SP.2.2, NC.M4.SP.2.3	U7-23
7.3	Using Simulations	NC.M4.SP.2.1	U7-47

NORTH CAROLINA MATH 4 STANDARDS CORRELATIONS

Unit 8: ACT Prep: Complex Numbers, Matrices, and Vectors			
Lesson	**Title**	**Standard(s)**	**Pages**
8.1	Defining Complex Numbers, *i*, and i^2	NC.M4.N.1.1	U8-7
8.2	Adding and Subtracting Complex Numbers	NC.M4.N.1.1	U8-28
8.3	Multiplying Complex Numbers	NC.M4.N.1.2	U8-49
8.4	Finding the Complex Conjugate	NC.M4.N.1.2	U8-72
8.5	Operations with Matrices	NC.M4.N.2.1	U8-93
8.6	Using Operations on Matrices	NC.M4.N.2.1	U8-120
8.7	Zero, Identity, Inverse, and Transformation Matrices	NC.M4.N.2.1	U8-149
8.8	Representing and Modeling with Vector Quantities	NC.M4.N.2.2	U8-185
8.9	Performing Operations on Vectors	NC.M4.N.2.2	U8-212