

Course: NC Math 3

90-Day Pacing Guide (Updated June 2019)

Day	Lesson	Day	Lesson
1	Intro to Functions and Function Notation	46	Quadrilaterals and Their Properties
2	Function Operations (& Review Interval Notation)	47	Proving with Quadrilaterals (Review two-column proofs)
3	Inverse Functions (Notation, Proving, Eqs, Graphing)	48	Concurrent Lines/Centers of Triangles (coord & word probs)
4	Families of Functions (Tie transformations & inverse)	49	Equations of Circles (Review midpoint & distance formulas)
5	Graph & Solve Absolute Value Eqs (include wd probs)	50	Tangent Lines in Circles (Review Pythagorean Theorem)
6	Solve Absolute Value Ineqs (& Rev Compound Ineqs)	51	Arcs, Chords, and Central & Inscribed Angles
7	Piecewise Functions (graph, write, wd probs, D/R)	52	Other Angles – Secant Lines: outside vs inside
8	Review / Unit Project	53	Segment Lengths – Secant Lines: outside vs inside
9	Review	54	Arc Length and Sector Area
10	Unit # 1 Test – Functions and Inverses	55	Review / Unit Project
11	Exponential Eqs – Same Bases (Rev Law of Exponents)	56	Review
12	Exp & Log Funct – Graphs/Transform (Log Logic Task)	57	Unit # 6 Test – Reasoning with Geometry
13	Properties of Logs & Exponential Eqs – Unlike Bases	58	Right Triangle Trigonometry (include inverse trig)
14	Logarithmic Equations – Two Different Types	59	Angles of Rotation (coterminal and reference angles)
15	Exp Word Problems – Growth/Decay & Comp Interest	60	Angular and Linear Velocity
16	Review / Unit Project	61	Angle Measurement: Degrees vs Radians
17	Review	62	Unit Circle and Exact Value
18	Unit # 2 Test – Exponential & Logarithmic Functions	63	Graphing Sine and Cosine Functions
19	Vocabulary and Operations with Polynomials	64	Modeling with Trigonometric Functions
20	Dividing Polynomials – Long versus Synthetic	65	Review / Unit Project
21	Polynomial Functions and Their Graphs	66	Review
22	Solving Polynomials – Quadratic Techs & Theorems	67	Unit # 7 Test – Trigonometric Functions
23	Solving Polynomials – Division Techs (Real vs Imaginary)	68	Experimental Design (observation, survey, experiment)
24	Solving Polynomials – Finding all Roots/Zeros	69	Observations and Sample Surveys (population vs sample)
25	Writing Polynomials Eqs/Functs (and Word Probs)	70	Analyzing Data (MCT, b-w plot/outliers, theoretical vs experimental)
26	Review / Unit Project	71	Standard Deviation, Margin of Error, Sampling Methods
27	Review	72	Review / Unit Project
28	Unit # 3 Test – Polynomial Functions	73	Review
29	Simplifying, Multiplying, Dividing Rational Expressions	74	Unit # 8 Test – Statistics
30	Adding and Subtracting Rational Expressions	75	Review for Exams
31	Graphs of Rational Functions (include transformations)	76	Review for Exams
32	Solving Rational Equations	77	Review for Exams
33	Rational Word Problems (work and distance probs)	78	Review for Exams
34	Review / Unit Project	79	Review for Exams
35	Review	80	Review for Exams
36	Unit # 4 Test – Rational Functions	81	Review for Exams
37	Cross Sections & Review Area of Geometric Shapes	82	Review for Exams
38	3D Figures: Prisms, Cylinders, and Spheres	83	Review for Exams
39	3D Figures: Pyramids and Cones	84	Review for Exams
40	3D Figures: Rotations with Shapes	85	Review for Exams
41	3D Figures: Composite Shapes	86	Review for Exams
42	Modeling with 3-D Figures: Word Problems	87	Exams
43	Review / Unit Project	88	Exams
44	Review	89	Exams
45	Unit # 5 Test – Modeling with Geometry (3-D Figures)	90	Exams

Note: Math 3 Honors should include extra topics such as the following:

Unit # 1 – Composition and Quadratic/Sq Root Inequalities

Unit # 2 – Natural Logarithms, Logarithmic Word Problems, and Finding Inverse Eqs of Exp/Log Functns

Unit # 3 – Rational Root Theorem, Writing Polynomials where $a \neq 1$, and Polynomial Word Problems

Unit # 4 – Rational Inequalities

Unit # 5 – Density Word Problems

Unit # 6 – Introduce Flow Proofs when proving Quadrilaterals and Proofs with Circle Theorems

Unit # 7 – Introduce Cosecant, Secant, Cotangent, Introduce Basic Trigonometric Identities, Phase Shifts, Graphing Tangent Function and Trigonometric Equations

Unit # 8 – Normal Distribution