

## BHS Integrated Math 3 Scope and Sequence

UNIT	STANDARDS	TIME
1) Statistics (Freshmen Only)	S.IC.1, S.IC.2, S.IC.3, S.IC.4, S.IC.5, S.IC.6 S.ID.4, S.ID.6	3 weeks
1) Geometric Proofs (Sophomore Only)	G.GPE.4, G.GPE.5, G.GPE.6 G.C.1, G.SRT.4 G.CO.9, G.CO.10, G.CO.11	3 weeks
2) Probability	S.CP.1, S.CP.2, S.CP.3, S.CP.4, S.CP.5, S.CP.6, S.CP.7, S.CP.8, S.CP.9 S.MD.6, S.MD.7	3 weeks
3) Representing Polynomial Functions	A.SSE.2, A.REI.1, A.APR.2, A.APR.4, A.CED.3 N.Q.2, F.BF.4a	3-4 weeks
4) Modeling Polynomial Functions	A.CED.2, A.APR.3, A.REI.11 F.IF.4, F.IF.6, F.IF.7c, F.IF.9, F.BF.3 G.GPE.2	3-4 weeks
5) Rational Functions	A.SSE.2, A.CED.1, A.REI.2 F.IF.4, F.BF.4, F.IF.7d A.APR.6, A.APR.7	4 weeks
6) Radical Functions	A.REI.2, F.IF.4, F.IF.6, F.IF.9 F.BF.3	3-4 weeks
7) Exponential & Logarithmic Functions	N.Q.2 A.SSE.4, A.CED.1, A.CED.2, A.REI.11 F.IF.7e, F.LE.4, F.IF.6, F.IF.9, F.BF.3, F.BF.4a, F.BF.5	4-5 weeks
8) Trigonometry and the Unit Circle	F.TF.1, F.TF.2, F.TF.3, F.TF.4, F.TF.8	4 weeks
9) Represent and Apply Trigonometry	F.IF.4, F.IF.6, F.IF.7e, F.IF.9, F.BF.3 F.TF.5, F.TF.6, F.TF.7	4 weeks
10) Trigonometry Law of Sines & Cosines	F.TF.9, G.SRT. 10, G.SRT.11	2 weeks

## BHS Integrated Math 3 (Semester 1)

UNIT	STANDARDS	TIME
1F) Statistics	S.IC.1 (Making inferences on a random sample) S.IC.2 (Using simulations) S.IC.3 (Surveys, experiments, observational studies), S.IC.4 (Population mean and margin of error) S.IC.5 (Randomized experiments) S.IC.6 (Evaluate reports based on data) S.ID.6 (Represent and describe 2 variable data relationship) S.ID.4 (Fit a normal distribution)	3 weeks
1S) Geometric Proofs	G.GPE.4 (Algebraic coordinate proofs) G.GPE.5 (Slope with parallel and perpendicular lines) G.GPE.6 (Partition a line segment) G.C.1 (Circle similarity) G.CO.9 (Lines and angles) G.CO.10 (Triangles) G.CO.11 (Parallelograms) G.SRT.4(side-splitter, Pythagorean, proof by similarity)	3 weeks
2) Probability	S.CP.1(events and subsets) S.CP.2(def of independent) S.CP.3( $P(A \text{ and } B)/P(B)$ ) S.CP.4(two-way frequency tables) S.CP.5(conditional & independent in everyday language) S.CP.6(conditional prob of A given B) S.CP.7 (addition rule) S.CP.8(multiplication rule) S.CP.9(permutation and combination to solve problems) S.MD.6(fair decisions) S.MD.7(analyze using probability)	3 weeks
3) Representing Polynomial Functions	A.SSE.2 (Rewrite expressions) A.REI.1 (Solve equations) A.APR.2 (Remainder Theorem) A.APR.4 (Polynomial identities) A.CED.3(Constraints and interpret solutions) N.Q.2 (Define quantities) F.BF.4a (Inverse of a function)	3-4 weeks
4) Modeling Polynomial Functions	A.CED.2 (Graph equations) A.APR.3 (Zeros and graphs of polynomials) A.REI.11 (Solve systems of equations) F.IF.4 (Interpret key features) F.IF.6 (Average rate of change) F.IF.7c (Graph polynomial functions; identify key features) F.IF.9 (Compare functions from different representations) F.BF.3 (Transformations using k) G.GPE.2 (Equation of a parabola)	3-4 weeks
5) Rational Functions	A.SSE.2 (Rewrite expressions) A.CED.1 (Create rational equations and inequalities) A.REI.2 (Solve rational equations) F.IF.4 (Interpret key features) A.APR.6 (Rewrite rational expressions) A.APR.7 (Rational expression operations) F.BF.4 (Inverse functions) F.IF.7d (Graph and Interpret key features)	4 weeks

## BHS Integrated Math 3 (Semester 2)

UNIT	STANDARDS	TIME
6) Radical Functions	A.REI.2 (Solve radical equations) F.IF.4 (Interpret key features) F.IF.6 (Average rate of change) F.IF.9 (Compare functions from different representations) F.BF.3 (Transformations using $k$ )	3-4 weeks
7) Exponential & Logarithmic Functions	N.Q.2 (Define quantities) A.SSE.4 (Sum of a finite geometric series) A.CED.1 (Create exponential equations and inequalities) A.CED.2 (Graph equations) A.REI.11 (Solve systems of equations) F.IF.7e (Graph exponential and logarithmic functions; key features) F.LE.4 (Express exponentials as logarithms) F.IF.6 (Average rate of change) F.IF.9 (Compare functions from different representations) F.BF.3 (Transformations using $k$ ) F.BF.4a (Inverse of a function) F.BF.5 (Use Inverse to solve)	4-5 weeks
8) Trigonometry and the Unit Circle	F.TF.1 (Radian measure in a unit circle) F.TF.2 (Trigonometric functions with real number domain) F.TF.3 (Special triangles) F.TF.4 (Symmetry and periodicity) F.TF.8 (Pythagorean Identity)	4 weeks
9) Represent and Apply Trigonometry	F.IF.4 (Interpret key features) F.IF.7e (Graph trigonometric functions) F.BF.3 (Transformations using $k$ ) F.IF.9 (Compare functions from different representations) F.TF.5 (Model with trigonometric functions) F.TF.6 (Inverse construction) F.TF.7 (Inverse functions to solve) F.IF.6 (Average rate of change)	4 weeks
10) Trigonometry Law of Sines & Cosines	F.TF.9 Prove addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems G.SRT. 10 Prove the law of sines and cosines and use them to solve problems. G.SRT.11 Understand and apply the law of sines and cosines to find unknown measurements in right and non-right triangles.	2 weeks