

# Secondary III HONORS Year at a Glance 2016 – 2017

**It is expected that teachers will collaborate with their grade level IPLCs to determine the order and pacing of the standards/topics within each quarter**

Flexible Pacing	Standards (in any order)	Topics Related to Standards	Walch Alignment	Assessment Window
<b>Quarter 1</b>				
<b>August 24 – October 31st</b>	A.SSE.1**	Interpret polynomial and rational expressions in terms of its context	2A.1.1 2A.1.1 2A.2.2 2A.2.3 2B.1.1	<b>Pre-Assessment (Optional): Aug 24<sup>th</sup> – Sept 2<sup>nd</sup></b>
	A.SSE.2	Use the structure of an expression to rewrite it	2A.2.1 2A.2.2 2A.2.3 2B.1.1 2B.1.3 2B.1.4 2B.1.5	
	A.APR.1	Operations on polynomials	2A.1.2 2A.1.3	
	A.APR.2	Know and apply the Remainder Theorem	2A.3.2	<b>Grade Level Assessment: Oct 17<sup>th</sup> – Oct 28<sup>th</sup></b>
	A.APR.3	Identify zeros of polynomials and use zeros to graph the function	2A.3.3 2A.3.4	
	A.APR.4	Prove polynomial identities	2A.2.1 2A.2.2 2A.2.3	
	A.APR.5	Know and apply the Binomial Theorem	2A.2.3	
	F.IF.7c	Graph polynomial functions, identify zeros, and show end behavior	2A.3.1 2A.3.3	

	F.BF.3	Transformations on graphs	4B.2.1 4B.2.2 4B.4.1 4B.4.3	
	A.REI.2 (radical)	Solve simple radical equations in one variable (radicals only)	2B.2.2	
	N.CN.8	Extend polynomial identities to the complex numbers	2A.2.2	
	N.CN.9	Know the Fundamental Theorem of Algebra	2A.3.3	
	HONORS: N.CN.3	Find the conjugate of a complex number	Not covered in Walch	
	HONORS: N.CN.4	Represent complex numbers on the complex plane	Not covered in Walch	
	HONORS: N.CN.5	Represent the operations on the complex plane	Not covered in Walch	
	HONORS: N.CN.6	Calculate the distance between numbers as the modulus	Not covered in Walch	
	HONORS: N.CN.10	Multiply complex numbers in polar form and use DeMoirvre's Theorem	Not covered in Walch	

\*\* Standard modified, see standards for changes

Quarter 2			
November 1 <sup>st</sup> – January 18 <sup>th</sup>	F.IF.7d**	Graph rational functions, identify zeros, and asymptotes	NONE
	A.APR.6	Rewrite simple rational expressions in different forms	2B.1.2 2B.1.5
	A.REI.2 (rational)	Solve simple rational equations in one variable (rational only)	2B.2.1
	A.APR.7	Operations on rational expressions	2B.1.3 2B.1.4 2B.1.5
	A.REI.11	Solve systems of equations	2B.2.3 2A.4.1
	S.ID.4	Use mean and standard deviation of a data set to fit it to a normal distribution	1.1.1 1.1.2 1.1.3
	S.IC.1	Make inferences about population parameters	1.2.1
	S.IC.3	Recognize the purposes of and differences among surveys, experiments, and observations	1.3.1 1.3.2
	S.IC.4	Use data from a survey to estimate a population mean	1.4.1 1.4.2 1.4.3 1.4.4
	S.IC.6	Evaluate reports based on data	1.5.3
	F.TF.1	Understand radian measure	3.1.1
	F.TF.2	Explain and understand the unit circle	3.1.1 3.1.2 3.1.4
	F.TF.3	Use special triangles to determine sine, cosine, and tangent	3.1.3 Secondary II 5.8.2
	HONORS: F.TF.4	Use the unit circle to explain symmetry and periodicity of trig functions	Not covered in Walch

**District Semester  
Assessment:  
Jan 4<sup>th</sup> – Jan 16<sup>th</sup>**

	HONORS: F.TF.9	Prove the addition and subtraction formulas for sine, cosine, and tangent	Secondary II 5.9.6	
	HONORS: F.IF.7d**	Graph rational functions, identify point discontinuities	Not covered in Walch	
	HONORS: F.IF.7f	Define a curve parametrically and draw its graph	Not covered in Walch	

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Quarter 3				
January 19 <sup>th</sup> – March 27 <sup>th</sup>	F.TF.5	Modeling trig functions	3.3.1 3.3.2	Grade Level Assessment: Mar 13 <sup>th</sup> – Mar 24 <sup>th</sup>
	F.TF.7**	Use inverse trig functions to solve trig equations	Not covered in Walch	
	F.IF.7e	Graph exponential and logarithmic functions	4A.3.1 4A.3.2 4A.2.4	
	F.BF.4a**	Find inverse functions, include linear, quadratics, exponential, logarithmic, rational, square root, and cube root	4A.1.1 4A.1.2 4A.2.1	
	F.LE.3**	Observe that increasing exponential graphs exceed other increasing graphs	Not covered in Walch	
	F.LE.4	Relationships between logarithms and e	4A.2.1 4A.2.2 4A.2.3	
	G.SRT.9	Derive the formula $A = \frac{1}{2} ab \sin (C)$	3.2.1	
	G.SRT.10	Prove the Laws of Sines and Cosines and use them to solve problems	3.2.1 3.2.2	
	G.SRT.11	Apply the Law of Sines and Cosines to find unknown measurements in triangles	3.2.3	
	HONORS: F.TF.6	Understand that restricting the domain on a trig function allows the inverse to be constructed	4A.1.4	
	HONORS: F.BF.1c	Composition of functions	4B.2.4	
	HONORS: F.BF.4bcd	Verify inverses by composition, find inverses of functions in various forms, find an inverse by restricting the domain	4A.1.3 4A.1.4 4B.2.5	
	HONORS: F.BF.5	Understand the inverse relationship between exponents and logarithms and use to solve problems	F.BF.5	

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Quarter 4				
March 28 <sup>th</sup> – June 7 <sup>th</sup>	A.CED.1	Create equations and inequalities in one variable (include linear, quadratic, simple rational, and exponential functions)	4B.1.1	District FINAL: May 22 <sup>nd</sup> – June 2 <sup>nd</sup>
	A.CED.2	Create equations in two or more variables, graph equations	4B.4.1	
	A.CED.3	Represent constraints and interpret solutions	4B.1.2	
	A.CED.4	Rearrange formulas to highlight a quantity of interest	4B.1.3	
	F.BF.1b	Combine functions using arithmetic operations	4B.2.3	
	F.IF.4	Interpret key features of graphs and tables and sketch graphs	4A.2.5 4B.4.1 4B.3.1 4B.4.2	
	F.IF.5	Relate the domain of a function to its graph	4A.2.5 4B.4.1 4B.3.1 4B.4.2	
	F.IF.6	Calculate and interpret average rate of change	4B.3.1 4B.3.2 4B.3.3	
	F.IF.7b**	Graph square root, cube root, and piecewise functions, including step and absolute value functions	4B.4.2 Secondary II 2.7.1	
	F.IF.8	Write a function in different but equivalent forms	4A.2.2 4A.2.3	
	F.IF.9	Compare properties of two function in different representations	4B.3.3	
	F.BF.3	Transformations on graphs	4B.4.3	
	F.LE.5**	Interpret parameters of a function in terms of a context	Not covered in Walch	
	G.GMD.4	Identify the shapes of 2-D cross sections; identify 3-D objects	4B.5.1	
	G.MG.1	Use geometric shapes to describe objects	4B.5.1	
G.MG.2	Apply concepts of density	4B.5.2		
G.MG.3	Apply geometric methods to solve design problems	4B.5.3		

	A.SSE.4**	Understand the formula for the sum of a series and use it to solve problems	2A.5.1 2A.5.2 2A.5.3	
	HONORS: G.GMD.2	Give an informal argument using Cavalieri's principle for volume	Secondary II 6.5.3	
	HONORS: S.CP.9	Permutations and combinations of compound events	Secondary II 4.3.1 4.3.2	

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<b>Standards Removed</b>			
	S.IC.2	Decide if a model is consistent with the results	Removed from Core
	S.IC.5	Use data to compare two treatments	Removed from Core