

# Secondary Mathematics I and I Honors Walch Alignment

## Unit 1: Relationships Between Quantities

Lesson	Sub-lesson number	Title	Standard(s)	Notes
<b>Interpreting Structure in Expressions</b>				
<b>Lesson 1</b>	1.1.1	Identifying Terms, Factors, and Coefficients	A.SSE.1a★	
	1.1.2	Interpreting Complicated Expressions	A.SSE.1b★	
<b>Creating Equations and Inequalities in One Variable</b>				
<b>Lesson 2</b>	1.2.1	Creating Linear Equations in One Variable	A.CED.1★ N.Q.2★ N.O.3★	
	1.2.2	Creating Linear Inequalities in One Variable	A.CED.1★	
	1.2.3	Creating Exponential Equations	A.CED.1★	
<b>Creating and Graphing Equations in Two Variables</b>				
<b>Lesson 3</b>	1.3.1	Creating and Graphing Linear Equations in Two Variables	A.CED.2★ N.Q.1★	
	1.3.2	Creating and Graphing Exponential Equations	A.CED.2★ N.Q.1★	
<b>Representing Constraints</b>				
<b>Lesson 4</b>	1.4.1	Representing Constraints	A.CED.3★	
<b>Rearranging Formulas</b>				
<b>Lesson 5</b>	1.5.1	Rearranging Formulas	A.CED.4★	

## Unit 2: Linear and Exponential Relationships

Lesson	Sub-lesson number	Title	Standard(s)	Notes
<b>Graphs As Solution Sets and Function Notation</b>				
<b>Lesson 1</b>	2.1.1	Graphing the Set of All Solutions	A.REI.10	
	2.1.2	Intersecting Graphs	A.REI.11★	
	2.1.3	Domain and Range	F.IF.1	
	2.1.4	Function Notation and Evaluating Functions	F.IF.2	

<b>Lesson 2</b>	<b>Interpreting Graphs of Functions</b>			
	2.2.1	Identifying Key Features of Linear and Exponential Graphs	F.IF.4★ F.IF.5★	
	2.2.2	Proving Average Rate of Change	F.IF.6★ F.LE.1a★	
	2.2.3	Recognizing Average Rate of Change	F.IF.6★ F.LE.1b★ F.LE.1c★	
	2.2.4 HONORS	HONORS: Representing Average Rate of Change as the Slope of a Secant Line	Represent- average rate of change as the slope of the secant line.	Removed from the Core
<b>Lesson 3</b>	<b>Analyzing Linear and Exponential Functions</b>			
	2.3.1	Graphing Linear Functions	F.IF.7a★	
	2.3.2	Graphing Exponential Functions	F.IF.7e★	
	2.3.3	Solving Linear Inequalities in Two Variables by Graphing	A.REI.12	
<b>Lesson 4</b>	<b>Comparing Functions</b>			
	2.4.1	Comparing Linear Functions	F.IF.9	
	2.4.2	Comparing Exponential Functions	F.IF.9	
	2.4.3	Comparing Linear to Exponential Functions	F.LE.3★	
<b>Lesson 5</b>	<b>Building Functions</b>			
	2.5.1	Building Functions from Context	F.BF.1a★	
	2.5.2	Constructing Functions from Graphs and Tables	F.LE.2★	
<b>Lesson 6</b>	<b>Operating on Functions and Transformations</b>			
	2.6.1	Operating on Functions	F.BF.1b★	
	2.6.2	Transformations of Linear and Exponential Functions	F.BF.3	

<b>Arithmetic and Geometric Sequences</b>				
<b>Lesson 7</b>	2.7.1	Sequences As Functions	F.IF.3	
	2.7.2	Arithmetic Sequences	F.BF.2★	
	2.7.3	Geometric Sequences	F.BF.2★	
<b>Interpreting Parameters</b>				
<b>Lesson 8</b>	2.8.1	Interpreting Parameters	F.LE.5★	
<b>Unit 3: Reasoning with Equations</b>				
<b>Lesson</b>	<b>Sub-lesson number</b>	<b>Title</b>	<b>Standard(s)</b>	<b>Notes</b>
<b>Solving Equations and Inequalities</b>				
<b>Lesson 1</b>	3.1.1	Properties of Equality	A.REI.1	
	3.1.2	Solving Linear Equations	A.REI.3	
	3.1.3	Solving Linear Inequalities	A.REI.3	
	3.1.4	Solving Exponential Equations	A.REI.3	
<b>Solving Systems of Equations</b>				
<b>Lesson 2</b>	3.2.1	Proving Equivalencies	A.REI.5	
	3.2.2	Solving Systems of Linear Equations	A.REI.6	
	3.2.3	Solving Systems of Linear Inequalities	A.REI.12	
<b>HONORS: Matrices</b>				
<b>Lesson 3</b>	3.3.1 HONORS	HONORS: Performing Operations on Matrices	N.VM.7 N.VM.8 N.VM.9	
	3.3.2 HONORS	HONORS: Using Operations on Matrices	N.VM.6 N.VM.12 N.VM.13	
<b>Unit 4: Descriptive Statistics</b>				
<b>Lesson</b>	<b>Sub-lesson number</b>	<b>Title</b>	<b>Standard(s)</b>	<b>Notes</b>
<b>Working with a Single Measurement Variable</b>				
<b>Lesson 1</b>	4.1.1	Representing Data Sets	S.ID.1★	
	4.1.2	Comparing Data Sets	S.ID.2★	
	4.1.3	Interpreting Data Sets	S.ID.3★	

<b>Working with Two Categorical and Quantitative Variables</b>				
<b>Lesson 2</b>	4.2.1	Summarizing Data Using Two-Way Frequency Tables	S.ID.5★	Moved to Secondary II
	4.2.2	Solving Problems Given Functions Fitted to Data	S.ID.6a★	
	4.2.3	Analyzing Residuals	S.ID.6b★	
	4.2.4	Fitting Linear Functions to Data	S.ID.6c★	
<b>Interpreting Linear Models</b>				
<b>Lesson 3</b>	4.3.1	Interpreting Slope and y-intercept	S.ID.7★	
	4.3.2	Calculating and Interpreting the Correlation Coefficient	S.ID.8★	
	4.3.3	Distinguishing Between Correlation and Causation	S.ID.9★	
<b>Unit 5: Congruence, Proof, and Constructions</b>				
<b>Lesson</b>	<b>Sub-lesson number</b>	<b>Title</b>	<b>Standard(s)</b>	<b>Notes</b>
<b>Introducing Transformations</b>				
<b>Lesson 1</b>	5.1.1	Defining Terms	G.CO.1	
	5.1.2	Transformations As Functions	G.CO.2	
	5.1.3	Applying Lines of Symmetry	G.CO.3	
<b>Defining and Applying Rotations, Reflections, and Translations</b>				
<b>Lesson 2</b>	5.2.1	Defining Rotations, Reflections, and Translations	G.CO.4	
	5.2.2	Applying Rotations, Reflections, and Translations	G.CO.5	
<b>Constructing Lines, Segments, and Angles</b>				
<b>Lesson 3</b>	5.3.1	Copying Segments and Angles	G.CO.12	
	5.3.2	Bisecting Segments and Angles	G.CO.12	
	5.3.3	Constructing Perpendicular and Parallel Lines	G.CO.12	

<b>Lesson 4</b>	<b>Constructing Polygons</b>			
	5.4.1	Constructing Equilateral Triangles Inscribed in Circles	G.CO.13	
	5.4.2	Constructing Squares Inscribed in Circles	G.CO.13	
	5.4.3	Constructing Regular Hexagons Inscribed in Circles	G.CO.13	
<b>Lesson 5</b>	<b>Exploring Congruence</b>			
	5.5.1	Describing Rigid Motions and Predicting the Effects	G.CO.6	
	5.5.2	Defining Congruence in Terms of Rigid Motions	G.CO.6	
<b>Lesson 6</b>	<b>Congruent Triangles</b>			
	5.6.1	Triangle Congruency	G.CO.7	
	5.6.2	Explaining ASA, SAS, and SSS	G.CO.8	
<b>Lesson 7</b>	<b>HONORS: Logical Reasoning</b>			
	5.7.1 HONORS	HONORS: Understanding and Using Logical Reasoning to Make and Evaluate Arguments	Understand and use logical reasoning to make and evaluate arguments.	Removed from the Core

Unit 6: Connecting Algebra and Geometry Through Coordinates				
Lesson	Sub-lesson number	Title	Standard(s)	Notes
Lesson 1	<b>Slope and Distance</b>			
	6.1.1	Using Coordinates to Prove Geometric Theorems with Slope and Distance	G.GPE.4 G.GPE.5	
	6.1.2	Working with Parallel and Perpendicular Lines	G.GPE.5	
Lesson 2	<b>Lines and Line Segments</b>			
	6.2.1	Calculating Perimeter and Area	G.GPE.7★	
Lesson 3	<b>HONORS: Vectors</b>			
	6.3.1 HONORS	HONORS: Representing and Modeling with Vector Quantities	N.VM.1 N.VM.2 N.VM.3	
	6.3.2 HONORS	HONORS: Performing Operations on Vectors	N.VM.4 N.VM.5	
	6.3.3 HONORS	HONORS: Determinants and Vectors	N.VM.10 N.VM.11	

Standards not covered: S.ID.3 weighted average