IXL Skill Alignment

Alg 1 alignment for Algebra 1 Analyze Connect Explore

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Module 1

Relationships Between Quantities

Textbook section	IXL skills	
Lesson 1.1: Precision and Significant Digits	**E.4**	Precision >>
Lesson 1.2: Dimensional Analysis	**C.7**	Scale drawings: word problems >>
	E.1	Convert rates and measurements: customary units >>
	E.2	Convert rates and measurements: metric units >>

Module 2

Exponents and Real Numbers

Textbook section	IXL skills	
Lesson 2.1: Radicals and Rational Exponents	**V.10**	Evaluate integers raised to rational exponents >>
Lesson 2.2: Real Numbers		

Module 3

Expressions

Textbook section	IXL skills	
Lesson 3.1: Evaluating Expressions		
Lesson 3.2: Simplifying Expressions	**H.3**	Simplify variable expressions using properties >>
	I.2	Simplify variable expressions involving like terms and the distributive property >>
Lesson 3.3: Writing Expressions	**I.1**	Write variable expressions >>

Module 4

Equations and Inequalities in One Variable

Textbook section	IXL skills	
Lesson 4.1: Equations in One Variable	**I.4**	Write variable equations >>
	J.4	Solve two-step linear equations >>
	J.5	Solve advanced linear equations >>
	J.6	Solve equations with variables on both sides >>
	J.7	Solve equations: complete the solution >>
	J.10	Solve linear equations: word problems >>
	J.11	Solve linear equations: mixed review >>
Lesson 4.2: Inequalities in One Variable	**K.2**	Write inequalities from graphs >>
	K.6	Solve one-step linear inequalities >>
	K.8	Solve two-step linear inequalities >>
	K.10	Solve advanced linear inequalities >>
Lesson 4.3: Solving for a Variable	**I.8**	Rearrange multi-variable equations >>

Module 5

Equations in Two Variables and Functions

Textbook section	IXL skills	
Lesson 5.1: Equations in Two Variables	**Q.11**	Interpret the graph of a function: word problems >>
Lesson 5.2: Representing Functions	**Q.2**	Domain and range of relations >>
	Q.7	Evaluate a function >>
	Q.10	Complete a function table from an equation >>
	S.13	Complete a table and graph a linear function >>
Lesson 5.3: Sequences	**P.4**	Evaluate variable expressions for number sequences >>

Module 6

Linear Functions

Textbook section	IXL skills	
Lesson 6.1: Linear Functions	**S.1**	Identify linear functions >>
Lesson 6.2: Using Intercepts	**S.16**	Standard form: find x- and y-intercepts >>
Lesson 6.3: Using Slope	**S.2**	Find the slope of a graph >>
	S.3	Find the slope from two points >>
Lesson 6.4: Slope-Intercept Form	**S.5**	Slope-intercept form: find the slope and y-intercept >>
	S.6	Slope-intercept form: graph an equation >>
	S.7	Slope-intercept form: write an equation from a graph >>
	S.10	Slope-intercept form: write an equation from a word problem >>
Lesson 6.5: Comparing Linear Functions	**S.14**	Compare linear functions: graphs, tables, and equations >>
Lesson 6.6: Transforming Linear Functions	**S.25**	Transformations of linear functions >>
Lesson 6.7: Writing Linear Functions	**S.9**	Slope-intercept form: write an equation from a table >>
	S.10	Slope-intercept form: write an equation from a word problem >>
	S.12	Write linear functions to solve word problems >>

Module 7

Building Linear Functions

Textbook section	IXL skills	
Lesson 7.1: Arithmetic Sequences	**P.2**	Arithmetic sequences >>
	P.5	Write variable expressions for arithmetic sequences >>
Lesson 7.2: Operations with Linear Functions		
Lesson 7.3: Linear Functions and Their Inverses		
Lesson 7.4: Linear Inequalities in Two Variables	**T.3**	Graph a two-variable linear inequality >>

Module 8

Modeling with Linear Functions

Textbook section	IXL skills	
Lesson 8.1: Correlation	**KK.10**	Match correlation coefficients to scatter plots >>
Lesson 8.2: Fitting Lines to Data	**KK.8**	Interpret a scatter plot >>
	KK.12	Scatter plots: line of best fit >>
Lesson 8.3: Linear Regression	**KK.13**	Find the equation of a regression line >>
	KK.14	Interpret regression lines >>
	KK.15	Analyze a regression line of a data set >>

Module 9

Systems of Equations and Inequalities

Textbook section	IXL skills	
Lesson 9.1: Solving Linear Systems by Graphing	**U.2**	Solve a system of equations by graphing >>
	U.4	Find the number of solutions to a system of equations by graphing >>
	U.6	Classify a system of equations by graphing >>
Lesson 9.2: Solving Linear Systems by Substitution	**U.8**	Solve a system of equations using substitution >>
	U.9	Solve a system of equations using substitution: word problems >>
Lesson 9.3: Solving Linear Systems by Adding or Subtracting		
Lesson 9.4: Solving Linear Systems by Multiplying	**U.10**	Solve a system of equations using elimination >>
	U.11	Solve a system of equations using elimination: word problems >>
Lesson 9.5: Solving Systems of Linear Inequalities	**T.6**	Solve systems of linear inequalities by graphing >>

Module 10

Exponential Functions and Equations

Textbook section	IXL skills	
Lesson 10.1: Exponential Functions	**X.1**	Evaluate an exponential function >>
Lesson 10.2: Exponential Growth and Decay	**X.5**	Exponential growth and decay: word problems >>
Lesson 10.3: Geometric Sequences	**P.3**	Geometric sequences >>
	P.6	Write variable expressions for geometric sequences >>
Lesson 10.4: Transforming Exponential Functions	**X.2**	Match exponential functions and graphs >>
Lesson 10.5: Equations Involving Exponents		

Module 11

Modeling with Exponential Functions

Textbook section	IXL skills
Lesson 11.1: Exponential Regression	
Lesson 11.2: Comparing Linear and Exponential Models	

Module 12

Descriptive Statistics

Textbook section	IXL skills
Lesson 12.1: Two-Way Frequency Tables	
Lesson 12.2: Relative Frequency	

Module 13

Data Displays

Textbook section	IXL skills	
Lesson 13.1: Measures of Center and Spread	**KK.2**	Mean, median, mode, and range >>
	KK.3	Quartiles >>
Lesson 13.2: Data Distributions and Outliers	**KK.4**	Identify an outlier >>
	KK.5	Identify an outlier and describe the effect of removing it >>
Lesson 13.3: Histograms	**N.1**	Interpret bar graphs, line graphs, and histograms >>
	N.2	Create bar graphs, line graphs, and histograms >>
Lesson 13.4: Box Plots	**N.5**	Interpret box-and-whisker plots >>
Lesson 13.5: Normal Distributions		

Module 14

Polynomials and Operations

Textbook section	IXL skills	
Lesson 14.1: Understanding Polynomials	**Z.1**	Polynomial vocabulary >>
Lesson 14.2: Adding and Subtracting Polynomials	**Z.4**	Add and subtract polynomials >>
Lesson 14.3: Multiplying Polynomials by Monomials	**Z.6**	Multiply a polynomial by a monomial >>
Lesson 14.4: Multiplying Polynomials	**Z.7**	Multiply two polynomials using algebra tiles >>
	Z.8	Multiply two binomials >>
	Z.9	Multiply two binomials: special cases >>
	Z.10	Multiply polynomials >>

Module 15

Factoring Polynomials

Textbook section	IXL skills	
Lesson 15.1: Factoring Polynomials	**AA.2**	Factor out a monomial >>
	AA.7	Factor by grouping >>
Lesson 15.2: Factoring x2 + bx + c	**AA.4**	Factor quadratics with leading coefficient 1 >>
Lesson 15.3: Factoring ax2 + bx + c	**AA.5**	Factor quadratics with other leading coefficients >>
Lesson 15.4: Factoring Special Products	**I.3**	Factor quadratics >>
	AA.6	Factor quadratics: special cases >>

Module 16

Solving Quadratic Equations

Textbook section	IXL skills	
Lesson 16.1: Solve Quadratic Equations Using Square Roots	**BB.5**	Solve a quadratic equation using square roots >>
Lesson 16.2: Solve x2 + bx + c = 0 by Factoring	**BB.6**	Solve a quadratic equation using the zero product property >>
Lesson 16.3: Solve ax2 + bx + c = 0 by Factoring	**BB.7**	Solve a quadratic equation by factoring >>
Lesson 16.4: Solve x2 + bx + c = 0 by Completing the Square	**BB.8**	Complete the square >>
Lesson 16.5: Solve ax2 + bx + c = 0 by Completing the Square	**BB.9**	Solve a quadratic equation by completing the square >>
Lesson 16.6: The Quadratic Formula	**BB.10**	Solve a quadratic equation using the quadratic formula >>
	BB.11	Using the discriminant >>

Module 17

Quadratic Functions

Textbook section	IXL skills	
Lesson 17.1: Translating Quadratic Functions		
Lesson 17.2: Stretching, Compressing, and Reflecting Quadratic Functions		
Lesson 17.3: Combining Transformations of Quadratic Functions	**BB.3**	Transformations of quadratic functions >>
Lesson 17.4: Characteristics of Quadratic Functions	**BB.1**	Characteristics of quadratic functions >>
	CC.1	Identify linear, quadratic, and exponential functions from graphs >>
Lesson 17.5: Solving Quadratic Equations Graphically		
Lesson 17.6: Solving Systems of Linear and Quadratic Equations	**BB.13**	Systems of linear and quadratic equations >>
Lesson 17.7: Comparing Linear, Quadratic, and Exponential Models		

Module 18

Piecewise and Absolute Value Functions

Textbook section	IXL skills	
Lession 18.1: Piecewise Functions		
Lession 18.2: Absolute Value Functions	**DD.2**	Graph an absolute value function >>
	DD.3	Domain and range of absolute value functions: graphs >>
Lession 18.3: Transforming Absolute Value Functions	**DD.5**	Transformations of absolute value functions >>
Lession 18.4: Solving Absolute-Value Equations and Inequalities	**K.13**	Write compound inequalities from graphs >>
	L.1	Solve absolute value equations >>
	L.2	Graph solutions to absolute value equations >>
	L.3	Solve absolute value inequalities >>
	L.4	Graph solutions to absolute value inequalities >>

Module 19

Square Root and Cube Root Functions

Textbook section	IXL skills
Lession 19.1: Square Root Functions	
Lession 19.2: Transforming Square Root Functions	
Lession 19.3: Cube Root Functions	
Lession 19.4: Transforming Cube Root Functions	

Appendix

Appendix

Textbook section	IXL skills	
Lesson A.1: The Pythagorean Theorem	**Q.1**	Pythagorean Theorem >>
Lesson A.2: Converse of the Pythagorean Theorem	**Q.2**	Converse of the Pythagorean theorem >>
Lesson A.3: Distance Between Two Points		