IXL Skill Alignment

Course 2 alignment for McGraw-Hill Integrated Math

This document includes the IXL skill alignments to McGraw-Hill's McGraw-Hill Integrated Math. IXL provides skill alignments as a service to teachers, students, and parents. The following skill alignments are not affiliated with, sponsored by, or endorsed by the publisher of the referenced textbook. IXL and IXL Learning are registered trademarks of IXL Learning, Inc. All other trademarks and registered trademarks are the property of their respective owners.

Visit IXL.com for more information

Chapter 0

Preparing for Integrated Math II

Textbook section	IXL skills	
Lesson 0-1: Changing Units of Measure Within Systems	**A1-E.1**	Convert rates and measurements: customary units >>
	A1-E.2	Convert rates and measurements: metric units >>
Lesson 0-2: Changing Units of Measure Between Systems		
Lesson 0-3: Simple Probability	**A1-JJ.1**	Theoretical probability >>
	A1-JJ.2	Experimental probability >>
Lesson 0-4: Algebraic Expressions	**A2-A.1**	Evaluate variable expressions involving integers >>
Lesson 0-5: Linear Equations	**G-A.6**	Solve linear equations >>
Lesson 0-6: Linear Inequalities	**G-A.7**	Solve linear inequalities >>
Lesson 0-7: Inverse Linear Functions		
Lesson 0-8: Ordered Pairs	**A1-G.1**	Coordinate plane review >>
Lesson 0-9: Systems of Linear Equations	**G-A.8**	Solve systems of linear equations >>
Lesson 0-10: Square Roots and Simplifying Radicals	**A1-EE.1**	Simplify radical expressions >>
	A1-EE.2	Simplify radical expressions with variables >>

Chapter 1

Quadratic Expressions and Equations

Textbook section	IXL skills	
Lesson 1-1: Adding and Subtracting Polynomials	**A1-Y.1**	Identify monomials >>
	A1-Z.1	Polynomial vocabulary >>
	A1-Z.4	Add and subtract polynomials >>
Lesson 1-2: Multiplying a Polynomial by a Monomial	**A1-Z.6**	Multiply a polynomial by a monomial >>
Lesson 1-3: Multiplying Polynomials	**A1-Z.8**	Multiply two binomials >>
	A1-Z.10	Multiply polynomials >>
Lesson 1-4: Special Products	**A1-Z.9**	Multiply two binomials: special cases >>
Lesson 1-5: Using the Distributive Property	**A1-AA.2**	Factor out a monomial >>
	A1-AA.3	Factor quadratics using algebra tiles >>
	A1-AA.7	Factor by grouping >>
	A1-BB.6	Solve a quadratic equation using the zero product property >>
Lesson 1-6: Solving x2 + bx + c= 0	**A1-AA.4**	Factor quadratics with leading coefficient 1 >>
Lesson 1-7: Solving ax2 + bx + c= 0	**A1-AA.5**	Factor quadratics with other leading coefficients >>
	A1-BB.7	Solve a quadratic equation by factoring >>
Lesson 1-8: Differences of Squares	**A1-AA.6**	Factor quadratics: special cases >>
Lesson 1-9: Perfect Squares		
Lesson 1-10: Roots and Zeros	**A2-K.7**	Solve polynomial equations >>
	A2-K.9	Write a polynomial from its roots >>
	A2-K.15	Fundamental Theorem of Algebra >>

Chapter 2

Quadratic Functions and Equations

Textbook section	IXL skills	
Lesson 2-1: Graphing Quadratic Functions	**A1-BB.1**	Characteristics of quadratic functions >>
	A1-BB.4	Graph quadratic functions in vertex form >>
Lesson 2-2: Solving Quadratic Equations by Graphing		
Lesson 2-3: Transformations of Quadratic Functions	**A1-BB.3**	Transformations of quadratic functions >>
Lesson 2-4: Solving Quadratic Equations by Completing the Square	**A1-BB.8**	Complete the square >>
	A1-BB.9	Solve a quadratic equation by completing the square >>
Lesson 2-5: Solving Quadratic Equations by Using the Quadratic Formula	**A1-BB.10**	Solve a quadratic equation using the quadratic formula >>
Lesson 2-6: Analyzing Functions with Successive Differences	**A1-CC.1**	Identify linear, quadratic, and exponential functions from graphs >>
	A1-CC.2	Identify linear, quadratic, and exponential functions from tables >>
	A1-CC.3	Write linear, quadratic, and exponential functions >>
Lesson 2-7: Special Functions	**A1-DD.1**	Complete a function table: absolute value functions >>
	A1-DD.2	Graph an absolute value function >>
	A1-DD.3	Domain and range of absolute value functions: graphs >>
	A1-DD.4	Domain and range of absolute value functions: equations >>

Chapter 3

Quadratic Functions and Relations

Textbook section	IXL skills	
Lesson 3-1: Solving Quadratic Equations by Factoring	**A1-BB.7**	Solve a quadratic equation by factoring >>
Lesson 3-2: Complex Numbers	**A2-H.1**	Introduction to complex numbers >>
	A2-H.2	Add and subtract complex numbers >>
	A2-H.3	Complex conjugates >>
	A2-H.4	Multiply complex numbers >>
	A2-H.5	Divide complex numbers >>
	A2-H.6	Add, subtract, multiply, and divide complex numbers >>
	A2-H.8	Powers of i >>
Lesson 3-3: The Quadratic Formula and the Discriminant	**A1-BB.11**	Using the discriminant >>
Lesson 3-4: Transformations of Quadratic Graphs	**A1-BB.12**	Match quadratic functions and graphs >>
Lesson 3-5: Quadratic Inequalities		

Chapter 4

Exponential and Logarithmic Functions and Relations

Textbook section	IXL skills	
Lesson 4-1: Graphing Exponential Functions	**A1-X.2**	Match exponential functions and graphs >>
	A1-X.3	Domain and range of exponential functions: graphs >>
	A1-X.4	Domain and range of exponential functions: equations >>
	A1-X.5	Exponential growth and decay: word problems >>
Lesson 4-2: Solving Exponential Equations and Inequalities	**A2-S.4**	Solve exponential equations using factoring >>
	A2-S.13	Compound interest: word problems >>
Lesson 4-3: Simplifying Radical Expressions	**A1-EE.1**	Simplify radical expressions >>
	A1-EE.2	Simplify radical expressions with variables >>
	A1-EE.3	Simplify radical expressions involving fractions >>
	A1-EE.7	Divide radical expressions >>
Lesson 4-4: Operations with Radical Expressions	**A1-EE.4**	Multiply radical expressions >>
	A1-EE.5	Add and subtract radical expressions >>
	A1-EE.6	Simplify radical expressions using the distributive property >>
	A1-EE.8	Simplify radical expressions: mixed review >>
Lesson 4-5: Radical Equations	**A1-FF.4**	Solve radical equations I >>
	A1-FF.5	Solve radical equations II >>

Chapter 5

Reasoning and Proof

Textbook section	IXL skills	
Lesson 5-1: Postulates and Paragraph Proofs		
Lesson 5-2: Algebraic Proof	**A1-H.4**	Properties of equality >>
Lesson 5-3: Proving Segment Relationships		
Lesson 5-4: Proving Angle Relationships	**G-C.3**	Identify complementary, supplementary, vertical, adjacent, and congruent angles >>
	G-C.4	Find measures of complementary, supplementary, vertical, and adjacent angles >>
	G-C.8	Proofs involving angles >>
Lesson 5-5: Angles and Parallel Lines	**G-D.3**	Transversals: name angle pairs >>
	G-D.4	Transversals of parallel lines: find angle measures >>
Lesson 5-6: Proving Lines Parallel	**G-D.6**	Proofs involving parallel lines I >>
	G-D.7	Proofs involving parallel lines II >>

Chapter 6

Congruent Triangles

Textbook section	IXL skills	
Lesson 6-1: Angles of Triangles	**G-F.2**	Triangle Angle-Sum Theorem >>
	G-F.3	Exterior Angle Theorem >>
Lesson 6-2: Congruent Triangles	**G-J.1**	Congruence statements and corresponding parts >>
	G-J.2	Solve problems involving corresponding parts >>
Lesson 6-3: Proving triangles Congruent-SSS, SAS	**G-K.1**	SSS and SAS Theorems >>
	G-K.2	Proving triangles congruent by SSS and SAS >>
	G-K.6	SSS Theorem in the coordinate plane >>
Lesson 6-4: Proving Triangles Congruent-ASA, AAS	**G-K.3**	ASA and AAS Theorems >>
	G-K.4	Proving triangles congruent by ASA and AAS >>
	G-K.5	SSS, SAS, ASA, and AAS Theorems >>
Lesson 6-5: Isosceles and Equilateral Triangles	**G-K.9**	Congruency in isosceles and equilateral triangles >>
	G-K.10	Proofs involving isosceles triangles >>
Lesson 6-6: Triangles and Coordinate Proof		

Chapter 7

Relationships in Triangles

Textbook section	IXL skills	
Lesson 7-1: Bisectors of Triangles	**G-B.6**	Perpendicular Bisector Theorem >>
	G-C.5	Angle bisectors >>
	G-M.2	Triangles and bisectors >>
Lesson 7-2: Medians and Altitudes of Trianges	**G-M.3**	Identify medians, altitudes, angle bisectors, and perpendicular bisectors >>
Lesson 7-3: Inequalities in One Triangle	**G-F.4**	Exterior Angle Inequality >>
	G-M.4	Angle-side relationships in triangles >>
Lesson 7-4: Indirect Proof		
Lesson 7-5: Triangle Inequality Theorem	**G-M.5**	Triangle Inequality Theorem >>
Lesson 7-6: Inequalities in Two Triangles		

Chapter 8
Quadrilaterals

Textbook section	IXL skills	
Lesson 8-1: Angles of Polygons	**G-G.2**	Interior angles of polygons >>
	G-G.3	Exterior angles of polygons >>
	G-G.4	Review: interior and exterior angles of polygons >>
Lesson 8-2: Parallelograms	**G-N.4**	Properties of parallelograms >>
Lesson 8-3: Tests for Parallelograms	**G-N.5**	Proving a quadrilateral is a parallelogram >>
Lesson 8-4: Rectangles		
Lesson 8-5: Rhombi and Squares	**G-N.6**	Properties of rhombuses >>
	G-N.7	Properties of squares and rectangles >>
Lesson 8-6: Trapezoids and Kites	**G-N.8**	Properties of trapezoids >>
	G-N.9	Properties of kites >>
	G-N.10	Review: properties of quadrilaterals >>
	G-N.11	Proofs involving quadrilaterals I >>
	G-N.12	Proofs involving quadrilaterals II >>

Chapter 9

Proportions and Similarity

Textbook section	IXL skills	
Lesson 9-1: Ratios and Proportions	**G-A.1**	Ratios and proportions >>
	A1-C.6	Solve proportions: word problems >>
Lesson 9-2: Similar Polygons	**G-P.1**	Similarity ratios >>
	G-P.2	Similarity statements >>
	G-P.3	Identify similar figures >>
	G-P.4	Side lengths and angle measures in similar figures >>
	G-P.6	Perimeters of similar figures >>
Lesson 9-3: Similar Triangles	**G-P.5**	Similar triangles and indirect measurement >>
	G-P.7	Similarity rules for triangles >>
Lesson 9-4: Parallel Lines and Proportional Parts	**G-M.1**	Midsegments of triangles >>
	G-P.10	Triangle Proportionality Theorem >>
Lesson 9-5: Parts of Similar Triangles		
Lesson 9-6: Similarity Transformations	**G-L.13**	Dilations: graph the image >>
	G-L.14	Dilations: find the coordinates >>
	G-L.15	Dilations: scale factor and classification >>
	G-P.8	Similar triangles and similarity transformations >>
Lesson 9-7: Scale Drawings and Models	**G-A.2**	Scale drawings: word problems >>

Chapter 10

Right Triangles and Trigonometry

Textbook section	IXL skills	
Lesson 10-1: Geometric Mean		
Lesson 10-2: The Pythagorean Theorem and Its Converse	**G-P.15**	Prove the Pythagorean theorem >>
	G-Q.1	Pythagorean Theorem >>
	G-Q.2	Converse of the Pythagorean theorem >>
	G-Q.3	Pythagorean Inequality Theorems >>
Lesson 10-3: Special Right Triangles	**G-Q.4**	Special right triangles >>
Lesson 10-4: Trigonometry	**G-R.1**	Trigonometric ratios: sin, cos, and tan >>
	G-R.2	Trigonometric ratios: csc, sec, and cot >>
	G-R.8	Trigonometric ratios: find a side length >>
	G-R.9	Trigonometric ratios: find an angle measure >>
	G-R.10	Solve a right triangle >>
Lesson 10-5: Angles of Elevation and Depression		
Lesson 10-6: The Law of Sines and Law of Cosines	**G-R.11**	Law of Sines >>
	G-R.12	Law of Cosines >>
	G-R.13	Solve a triangle >>
Lesson 10-7: Vectors	**G-Y.2**	Find the magnitude of a vector >>
	G-Y.3	Find the component form of a vector >>
	G-Y.4	Find the component form of a vector given its magnitude and direction angle >>
	G-Y.5	Graph a resultant vector using the triangle method >>
	G-Y.6	Graph a resultant vector using the parallelogram method >>
	G-Y.7	Add and subtract vectors >>

Chapter 11
Circles

Textbook section	IXL skills	
Lesson 11-1: Circles and Circumference		
Lesson 11-2: Measuring Angles and Arcs	**G-U.1**	Parts of a circle >>
	G-U.2	Central angles >>
	G-U.3	Arc measure and arc length >>
Lesson 11-3: Arcs and Chords	**G-U.6**	Arcs and chords >>
Lesson 11-4: Inscribed Angles	**G-U.9**	Inscribed angles >>
	G-U.10	Angles in inscribed right triangles >>
	G-U.11	Angles in inscribed quadrilaterals I >>
	G-U.12	Angles in inscribed quadrilaterals II >>
Lesson 11-5: Tangents	**G-U.7**	Tangent lines >>
Lesson 11-6: Secants, Tangents, and Angle Measures		
Lesson 11-7: Special Segments in a Circle		
Lesson 11-8: Equations of Circles	**G-V.3**	Write equations of circles in standard form from graphs >>
	G-V.4	Write equations of circles in standard form using properties >>
	G-V.7	Graph circles from equations in standard form >>
	G-V.8	Graph circles from equations in general form >>
Lesson 11-9: Areas of Circles and Sectors	**G-S.7**	Area and circumference of circles >>
	G-U.4	Area of sectors >>
	G-U.5	Circle measurements: mixed review >>

Chapter 12

Extending Surface Area and Volume

Textbook section	IXL skills	
Lesson 12-1: Representations of Three-Dimensional Figures	**G-H.3**	Nets and drawings of three-dimensional figures >>
	G-H.4	Cross-sections of three-dimensional figures >>
Lesson 12-2: Surface Areas of Prisms and Cylinders	**G-T.2**	Surface area of prisms and cylinders >>
Lesson 12-3: Surface Areas of Pyramids and Cones	**G-T.3**	Surface area of pyramids and cones >>
Lesson 12-4: Volumes of Prisms and Cylinders	**G-T.4**	Volume of prisms and cylinders >>
Lesson 12-5: Volumes of Pyramids and Cones	**G-T.5**	Volume of pyramids and cones >>
Lesson 12-6: Surface Area and Volume of Spheres	**G-T.6**	Surface area and volume of spheres >>
Lesson 12-7: Spherical Geometry		
Lesson 12-8: Congruent and Similar Solids	**G-T.7**	Introduction to similar solids >>
	G-T.8	Surface area and volume of similar solids >>

Chapter 13

Probability and Measurement

Textbook section	IXL skills	
Lesson 13-1: Representing Sample Spaces	**G-X.4**	Counting principle >>
Lesson 13-2: Probability with Permutations and Combinations	**G-X.5**	Permutations >>
	G-X.6	Permutation and combination notation >>
Lesson 13-3: Geometric Probability	**G-X.7**	Geometric probability >>
Lesson 13-4: Simulations	**G-X.1**	Theoretical and experimental probability >>
Lesson 13-5: Probabilities of Independent and Dependent Events	**G-X.2**	Compound events: find the number of outcomes >>
	G-X.3	Independent and dependent events >>
Lesson 13-6: Probabilities of Mutually Exclusive Events		