IXL Skill Alignment

Geo alignment for EngageNY Common Core Curriculum

Module 1
Congruence, Proof, and Constructions

Textbook section	IXL skills	
Topic A: Basic Constructions	**B.10**	Construct the midpoint or perpendicular bisector of a segment >>
	C.6	Construct an angle bisector >>
	D.2	Construct a perpendicular line >>
	G.5	Construct an equilateral triangle or regular hexagon >>
	M.6	Construct the circumcenter or incenter of a triangle >>
Topic B: Unknown Angles	**C.4**	Find measures of complementary, supplementary, vertical, and adjacent angles >>
	D.4	Transversals of parallel lines: find angle measures >>
	D.6	Proofs involving parallel lines I >>
	D.7	Proofs involving parallel lines II >>
	F.2	Triangle Angle-Sum Theorem >>
	F.3	Exterior Angle Theorem >>
	M.8	Proofs involving triangles I >>
	See also:	
	C.3	Identify complementary, supplementary, vertical, adjacent, and congruent angles >>
	C.8	Proofs involving angles >>
	D.3	Transversals: name angle pairs >>
Topic C: Transformations/Rigid Motions	**D.6**	Proofs involving parallel lines I >>
	D.7	Proofs involving parallel lines II >>
	L.7	Rotate polygons about a point >>
	O.3	Draw lines of symmetry >>
	O.4	Count lines of symmetry >>
	See also:	
	L.1	Classify congruence transformations >>
	L.2	Translations: graph the image >>

Topic D: Congruence	**K.1**	SSS and SAS Theorems >>
	K.2	Proving triangles congruent by SSS and SAS >>
	K.3	ASA and AAS Theorems >>
	K.4	Proving triangles congruent by ASA and AAS >>
	K.7	Proving triangles congruent by SSS, SAS, ASA, and AAS >>
	K.8	Proofs involving corresponding parts of congruent triangles >>
	K.10	Proofs involving isosceles triangles >>
	See also:	
	J.1	Congruence statements and corresponding parts >>
	K.5	SSS, SAS, ASA, and AAS Theorems >>
Topic E: Proving Properties of Geometric Figures	**N.11**	Proofs involving quadrilaterals I >>
	N.12	Proofs involving quadrilaterals II >>
Topic F: Advanced Constructions		
Topic G: Axiomatic Systems	**C.4**	Find measures of complementary, supplementary, vertical, and adjacent angles >>
	D.4	Transversals of parallel lines: find angle measures >>
	F.2	Triangle Angle-Sum Theorem >>
	F.3	Exterior Angle Theorem >>
	K.2	Proving triangles congruent by SSS and SAS >>
	K.4	Proving triangles congruent by ASA and AAS >>
	K.7	Proving triangles congruent by SSS, SAS, ASA, and AAS >>
	K.8	Proofs involving corresponding parts of congruent triangles >>
	K.9	Congruency in isosceles and equilateral triangles >>
	K.10	Proofs involving isosceles triangles >>
	N.4	Properties of parallelograms >>
	See also:	
	C.5	Angle bisectors >>

Module 2
Similarity, Proof, and Trigonometry

Textbook section	IXL skills	
Topic A: Scale Drawings	**P.10**	Triangle Proportionality Theorem >>
Topic B: Dilations	**L.3**	Translations: find the coordinates >>
	L.4	Translations: write the rule >>
	L.6	Reflections: find the coordinates >>
	L.9	Rotations: find the coordinates >>
Topic C: Similarity and Dilations	**P.5**	Similar triangles and indirect measurement >>
	P.7	Similarity rules for triangles >>
	P.12	Prove similarity statements >>
	See also:	
	P.1	Similarity ratios >>
	P.2	Similarity statements >>
Topic D: Applying Similarity to Right Triangles	**P.15**	Prove the Pythagorean theorem >>
	Q.1	Pythagorean Theorem >>
	Q.4	Special right triangles >>
Topic E: Trigonometry	**R.1**	Trigonometric ratios: sin, cos, and tan >>
	R.8	Trigonometric ratios: find a side length >>
	R.9	Trigonometric ratios: find an angle measure >>
	R.10	Solve a right triangle >>
	R.11	Law of Sines >>
	R.12	Law of Cosines >>
	See also:	
	R.6	Find trigonometric functions using a calculator >>

Module 3
Similarity, Proof, and Trigonometry

Textbook section	IXL skills	
Topic D: Applying Similarity to Right Triangles	**Q.2**	Converse of the Pythagorean theorem >>
Topic A: Area	**P.11**	Areas of similar figures >>
	S.8	Area of compound figures >>
	S.9	Area between two shapes >>
	See also:	
	S.7	Area and circumference of circles >>
	S.10	Area and perimeter of similar figures >>
Topic B: Volume	**D.1**	Identify parallel, perpendicular, and skew lines and planes >>
	H.4	Cross-sections of three-dimensional figures >>
	H.5	Solids of revolution >>
	T.5	Volume of pyramids and cones >>
	T.6	Surface area and volume of spheres >>
	See also:	
	T.4	Volume of prisms and cylinders >>

Module 4
Connecting Algebra and Geometry Through Coordinates

Textbook section	IXL skills	
Topic A: Rectangular and Triangular Regions Defined by Inequalities		
Topic B: Perpendicular and Parallel Lines in the Cartesian Plane	**E.5**	Slopes of parallel and perpendicular lines >>
	E.6	Equations of parallel and perpendicular lines >>
Topic C: Perimeters and Areas of Polygonal Regions in the Cartesian Plane	**S.5**	Area and perimeter in the coordinate plane I >>
	S.6	Area and perimeter in the coordinate plane II >>
Topic D: Partitioning and Extending Segments and Parameterization of Lines	**B.7**	Midpoint formula - find the midpoint >>
	B.9	Distance formula >>
	E.7	Find the distance between a point and a line >>

Module 5
Circles With and Without Coordinates

Textbook section	IXL skills
Topic A: Central and Inscribed Angles	
Topic B: Arcs and Sectors	**U.3** Arc measure and arc length >> **U.4** Area of sectors >> **U.9** Inscribed angles >>
Topic C: Secants and Tangents	**U.7** Tangent lines >> **U.13** Construct a tangent line to a circle >>
Topic D: Equations for Circles and Their Tangents	**V.1** Find the center of a circle >> **V.2** Find the radius or diameter of a circle >> **V.3** Write equations of circles in standard form from graphs >> **V.4** Write equations of circles in standard form using properties >> **V.7** Graph circles from equations in standard form >>
Topic E: Cyclic Quadrilaterals and Ptolemy's Theorem	