



IXL Skill Alignment

Geo alignment for EngageNY Common Core Curriculum

This document includes the IXL skill alignments to New York State Education Department's [EngageNY Common Core Curriculum](#). 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.

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 >>
	<i>See also:</i>
	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 >>
	<i>See also:</i>
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 >>
	<i>See also:</i>
	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 >>
	<i>See also:</i>
	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 >> <i>See also:</i> 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 >> <i>See also:</i> 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	