

Unit 7: Angles, Triangles, and Prisms[Open Up Family Resource Link](#)

Lesson	Skill	Online Resources	Standard
1	Find unknown angle measures by reasoning about adjacent angles with known measures. Recognize when an angle measures 90° , 180° , or 360° .	https://www.youtube.com/watch?v=D54AHI1Wmb4 https://www.youtube.com/watch?v=O7hsq9de_40 https://www.khanacademy.org/math/basic-geo/basic-geo-angle/measure-angles/v/measuring-angles-in-degrees https://www.khanacademy.org/math/basic-geo/basic-geo-angle/basic-geo-angle-types/v/recognizing-angles-examples https://www.khanacademy.org/math/basic-geo/basic-geo-angle/basic-geo-angle-types/e/drawing-right--acute--and-obtuse-angles	7.G.A, 7.G.B
2	Recognize when adjacent angles are complementary or supplementary. Find unknown angle measures by reasoning about complementary or supplementary angles.	https://www.khanacademy.org/math/basic-geo/basic-geo-angle/vert-comp-supp-angles/v/complementary-and-supplementary-angles https://www.khanacademy.org/math/basic-geo/basic-geo-angle/vert-comp-supp-angles/e/complementary_and_supplementary_angles https://www.khanacademy.org/math/basic-geo/basic-geo-angle/vert-comp-supp-angles/e/complementary-and-supplementary-angles--no-visual-	7.G.B, 7.G.B.5
3	Determine if angles that are not adjacent are complementary or supplementary. Explain what vertical angles are in my own words.	https://www.khanacademy.org/math/basic-geo/basic-geo-angle/vert-comp-supp-angles/v/angles-at-the-intersection-of-two-lines https://www.khanacademy.org/math/basic-geo/basic-geo-angle/vert-comp-supp-angles/e/vertical_angles	7.EE.A, 7.G.B.5
4	Reason through multiple steps to find unknown angle measures. Recognize when an equation represents a relationship between angle measures.	https://www.khanacademy.org/math/geometry-home/geometry-angles/geometry-vert-comp-supp/v/vertical-adjacent-and-linearly-paired-angles https://www.khanacademy.org/math/geometry/hs-geo-foundations/hs-geo-angles/v/example-using-algebra-to-find-measure-of-supplementary-angles https://www.khanacademy.org/math/math-1-2-3/geometry/hs-geo-foundations/hs-geo-	7.G.A, 7.G.B, 7.G.B.5

		angles/v/example-using-algebra-to-find-measure-of-complementary-angles https://www.khanacademy.org/math/math-1-2-3/geometry/hs-geo-foundations/hs-geo-angles/e/angle_addition_postulate	
5	Write an equation to represent a relationship between angle measures and solve the equation to find unknown angle measures.	https://www.khanacademy.org/math/geometry/hs-geo-foundations/hs-geo-angles/v/using-algebra-to-find-the-measures-of-vertical-angles https://www.khanacademy.org/math/geometry/hs-geo-foundations/hs-geo-angles/v/example-using-algebra-to-find-measure-of-complementary-angles https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-geometry/cc-7th-unknown-angle-algebra/e/solving-for-unknown-angles	7.EE.B.4, 7.G.B.5
6	<p>Show that the 4 side lengths that form a quadrilateral can be rearranged to form different quadrilaterals.</p> <p>Show that the 3 side lengths that form a triangle cannot be rearranged to form a different triangle.</p>	https://www.youtube.com/watch?v=3wjLGV9ibl https://www.cliffsnotes.com/study-guides/trigonometry/trigonometry-of-triangles/solving-general-triangles https://www.onlinemathlearning.com/prove-triangles-congruent.html https://www.youtube.com/watch?v=_mXODRNvCU0	7.G.A.2, 7.NS.A.1
7	<p>Show whether or not 3 side lengths will make a triangle.</p> <p>Reason about a figure with an unknown angle.</p>	https://www.khanacademy.org/math/geometry/hs-geo-foundations/hs-geo-polygons/v/triangle-inqequality-theorem https://www.khanacademy.org/math/geometry/hs-geo-foundations/hs-geo-polygons/v/proof-sum-of-measures-of-angles-in-a-triangle-are-180 https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-geometry/modal/v/constructing-triangles-with-constraints	7.G.A.2
8	Understand that changing which sides and angles are next to each other can make different triangles.	https://www.cliffsnotes.com/study-guides/trigonometry/trigonometry-of-triangles/solving-general-triangles https://www.onlinemathlearning.com/prove-triangles-congruent.html https://www.youtube.com/watch?v=vGuiy7NnJIM	7.G.A.2
9	Given two angle measures and one side length, draw different triangles with these measurements or show that these measurements determine one unique triangle or no triangle.	https://www.youtube.com/watch?v=DvCsRs6sSRQ https://www.cliffsnotes.com/study-guides/trigonometry/trigonometry-of-triangles/solving-general-triangles	7.G.A, 7.G.A.2

		https://www.onlinemathlearning.com/prove-triangles-congruent.html	
10	Given two side lengths and one angle measure, draw different triangles with these measurements or show that these measurements determine one unique triangle or no triangle.	https://www.youtube.com/watch?v=8jaVoGOwbC0 https://www.youtube.com/watch?v=le3j2MDuuA0 https://www.cliffsnotes.com/study-guides/trigonometry/trigonometry-of-triangles/solving-general-triangles https://www.onlinemathlearning.com/prove-triangles-congruent.html	7.G.A.2
11	Picture different cross sections of prisms and pyramids. Explain that when a three dimensional figure is sliced it creates a face that is two dimensional.	https://www.youtube.com/watch?v=hID_j3AtxGs https://www.youtube.com/watch?v=P_ZDKUuwMWo https://www.khanacademy.org/math/geometry/hs-geo-solids/hs-geo-2d-vs-3d/e/cross-sections-of-3d-shapes http://www.shodor.org/interactivate/activities/CrossSectionFlyer/	7.G.A.3
12	Explain why the volume of a prism can be found by multiplying the area of the base and the height of the prism.	https://www.youtube.com/watch?v=6nJgDehGmI4 https://www.youtube.com/watch?v=P79EC9qHXEq http://virtualnerd.com/geometry/surface-area-volume-solid/prisms-cylinders-volume/triangular-prism-volume-example https://www.ixl.com/math/geometry/volume-of-prisms-and-cylinders	7.G.B.6
13	Calculate the volume of a prism with a complicated base by decomposing the base into quadrilaterals or triangles.	https://www.youtube.com/watch?v=l3vYW5SUp3Y https://learnzillion.com/lesson_plans/7934-find-the-volume-of-complex-rectangular-prisms/	7.G.A.3, 7.G.B.6
14	Picture the net of a prism to help me calculate its surface area. Find and use shortcuts when calculating the surface area of a prism.	https://www.youtube.com/watch?v=SwDjm6Ra1W4 https://www.youtube.com/watch?v=7uzSWG6sRH0&t=348s https://www.youtube.com/watch?v=mtMNvnm71Z0&index=2&list=PLyNKtd2ugSr9u9uYGi-BWuEdFSM-lxNYb	7.G.B.6

		https://ca.ixl.com/math/grade-7/surface-area	
15	Decide whether I need to find the surface area or volume when solving a problem about a real-world situation.	https://www.khanacademy.org/math/basic-geo/basic-geo-volume-sa/basic-geometry-surface-area/e/volume-and-surface-area-word-problems https://www.khanacademy.org/math/basic-geo/basic-geo-volume-sa/basic-geometry-surface-area/e/surface-area-word-problems https://www.youtube.com/watch?v=7FfaevH9k-o	7.G.B, 7.G.B.6
16	Solve problems involving the volume and surface area of children's play structures.	https://www.youtube.com/watch?v=ZJ-VMcbLTaU https://www.ixl.com/math/grade-7/surface-area	7.G.B, 7.G.B.6, 7.RP.A
17	Build a triangular prism from scratch.	https://www.youtube.com/watch?v=iqh_jRtWYt0 https://www.youtube.com/watch?v=2WkzhU_iPgs	7.G.A.2, 7.G.B.6