**Geometry Curriculum Video Link**

**﻿FALL SEMESTER**

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| **UNIT** | **TOPIC** | **LESSON VIDEO LINK** | **SAMPLE PROBLEM VIDEO LINK** |
| 1. COORDINATE GEOMETRY | 1.1 slope | <https://youtu.be/TKch7O8Wsow> |  |
|  | 1.2 midpoint | <https://youtu.be/4qVGnra9f8U> |  |
|  | 1.3 reducing radicals | <https://youtu.be/MvXt6ZWt1_Y> |  |
|  | 1.4 distance | <https://youtu.be/7HpBxT6SRvg> |  |
|  | 1.5 partitioning a line segment (Day 1) | <https://youtu.be/_mX5vrqk4zw> |  |
|  | 1.6 partitioning a line segment (Day 2) | <https://youtu.be/DBG8s8rv_wk> |  |
|  | 1.7 y=mx + b form | <https://youtu.be/XuPihcC86Fw> |  |
|  | 1.8 parallel lines | <https://youtu.be/P-Nd5au_1Js> |  |
|  | 1.9 perpendicular lines | <https://youtu.be/QK__lmAx0ls> |  |
|  | 1.10 writing the equations of parallel lines | <https://youtu.be/8CeY06YbTVk> |  |
|  | 1.11 writing the equations of perpendicular lines | <https://youtu.be/OD8kQYHUJ6A> |  |
| 2. ANGLES | 2.1 naming and classifying an angle | <https://youtu.be/AcPeb39vg_g> |  |
|  | 2.2 angle pairs (Day 1) | <https://youtu.be/cKWFosJSDiE> |  |
|  | 2.3 angle pairs (Day 2) | <https://youtu.be/bekRksKwPv4> |  |
| 3. CONSTRUCTIONS | 3.1 Constructing Inscribed Polygons | <https://youtu.be/YqrPG6QgNfQ> |  |
|  | 3.2 Constructing Congruent and Similar triangles | <https://youtu.be/IZ367322wkQ> |  |
|  | 3.3 Constructing Parallel Lines and Parallelograms | <https://youtu.be/QyYc0PSEDdY> |  |
|  | 3.4 Constructing a Perpendicular Bisector, Median and Altitude | <https://youtu.be/NL3-yl47Nd8> |  |
|  | 3.5 |  |  |
| 4. TRIANGLES | 4.1 classifying and finding a missing angle | <https://youtu.be/ZT0zx3FM9qw> |  |
|  | 4.2 finding an exterior angle | <https://youtu.be/N-z1y6_eutU> |  |
|  | 4.3 relationship between side lengths and angle measurements | <https://youtu.be/3JxnUnsYSGk> |  |
|  | 4.4 triangle inequality theorem | <https://youtu.be/Y2nsL4CzU20> |  |
|  | 4.5 triangle midsegment theorems | <https://youtu.be/Tw6rAD7rikc> |  |
|  | 4.6 centroid theorem | <https://youtu.be/XUx3y_3-gmU> |  |
|  | 4.7 isosceles triangles | <https://youtu.be/qkYTVtS09Xs> |  |
|  | 4.8 right triangles | <https://youtu.be/GEFlQSvF86o> |  |
|  | 4.9 finding the area of a triangle | <https://youtu.be/p3lU0esZkoE> |  |
| 5. PROOFS | 5.1 |  | <https://youtu.be/fiu58a7-VFA> |
|  | 5.2 |  | <https://youtu.be/wGXrT2E6hfQ> |
|  | 5.3 |  | <https://youtu.be/trfvTUBVgwo> |
|  | 5.4 |  | <https://youtu.be/LEGA8uLj0dg> |
|  | 5.5 |  |  |
| 6. TRANSFORMATIONS | 6.1 dilating a polygon | <https://youtu.be/EAh2CaVNC7Y> |  |
|  | 6.2 dilating a line (day 1) | <https://youtu.be/wB2oRXLjgL4> |  |
|  | 6.3 dilating a line (day 2) | <https://youtu.be/SziyHnKfMlA> |  |
|  | 6.4 translations and rotations | <https://youtu.be/eMoe-uO0RGk> |  |
|  | 6.5 line reflections | <https://youtu.be/ZYMQhnU8Q8w> |  |
|  | 6.6 mapping a polygon onto itself | <https://youtu.be/ZYMQhnU8Q8w> |  |
|  | 6.7 describing a composition of transformations | <https://youtu.be/6Yuu5JgypZ0> |  |
|  | 6.8 using rigid motions to describe why polygons are congruent | <https://youtu.be/4qw7l9Kgz4I> |  |
|  | 6.9 writing a similarity transformation | <https://youtu.be/CXa72e--dxk> |  |

**SPRING SEMESTER**

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| **UNIT** | **TOPIC** | **LESSON VIDEO LINK** | **SAMPLE PROBLEM VIDEO LINK** |
| 1. SIMILARITY | 1.1 Dilations | <https://youtu.be/RsZfeXQhzas> |  |
|  | 1.2 Similar Polygons  1.2a | <https://youtu.be/yJ_PwmWuoq4>  <https://youtu.be/nFwHhLzYGuk> |  |
|  | 1.3 Writing Proportions for Similar Triangles  1.3a | <https://youtu.be/prbGPrNQVx8>  <https://youtu.be/nPebbSFMcg0> |  |
|  | 1.4 Proportions of Overlapping Triangles  1.4a | <https://youtu.be/xzek8EqOXXw>  <https://youtu.be/UPpGDlp4WVU> |  |
|  | 1.5 Altitude Rule  1.5a | <https://youtu.be/BjY_-E6xmyk>  <https://youtu.be/xBqOrDQHs-Q> |  |
|  | 1.6 Leg Rule  1.6a | <https://youtu.be/Xl6W9ahIFew>  <https://youtu.be/jK7uplUQIfg> |  |
|  | 1.7 Similarity Shortcuts Method | <https://youtu.be/qAdrSY7mlt0> |  |
| 2. TRIGONOMETRY | 2.1 Trig Ratios  2.1a | <https://youtu.be/SLMF7MA1kHk>  <https://youtu.be/qeV5KQV18EE> |  |
|  | 2.2 Trig Ratios to Find Angles  2.2a | <https://youtu.be/TbXKrsMT4QE>  <https://youtu.be/OkRBHDwrfa0> |  |
|  | 2.3 Trig Ratios to Find Angles (Word Problems)  2.3a | <https://youtu.be/6nHcUY493_E>  <https://youtu.be/BMl1eYNvpKc> |  |
|  | 2.4 Trig Ratios to Find Sides  2.4a | <https://youtu.be/1VA7IX-kcts>  <https://youtu.be/tHn7hVsCduQ> |  |
|  | 2.5 Trig Ratios to Find Sides (Word Problems)  2.5a | <https://youtu.be/o-UM6ndnj4g>  <https://youtu.be/w-tNwt_aA_Q> |  |
|  | 2.6 Cofunctions | <https://youtu.be/F3vKUzW7q2A> |  |
| 3. QUADRILATERALS | 3.1 Properties of a Trapezoid  3.1a | <https://youtu.be/dTRpAje5-lg>  <https://youtu.be/dfEBcO1md7I> |  |
|  | 3.2 Properties of a Parallelogram  3.2a | <https://youtu.be/GXR-ffH95Hw>  <https://youtu.be/pWexAXP2z1I> |  |
|  | 3.3 Properties of a Rhombus  3.3a | <https://youtu.be/vwDk0-EqsL8>  <https://youtu.be/J7mrBByALEw> |  |
|  | 3.4 Properties of a Rhombus Day 2 | <https://youtu.be/bjb1s0cuOks> |  |
|  | 3.5 Properties of a Rectangle  3.5a | <https://youtu.be/mSiDXRmvv7E>  <https://youtu.be/pPhmADJn5JU> |  |
|  | 3.6 Properties of a Square | <https://youtu.be/mcX6o7EMlEU> |  |
| 4. CIRCLES | 4.1 Equations of a Circle  4.1a | <https://youtu.be/gs_5vltZVpo>  <https://youtu.be/plKbNjXF7q4> |  |
|  | 4.2 Central Angle of a Circle  4.2a | <https://youtu.be/6MLw7W101So>  <https://youtu.be/cjPpx3ENLUI> |  |
|  | 4.3 Inscribed Angles of a Circle  4.2a | <https://youtu.be/EMvcDXSZeDU>  <https://youtu.be/cjPpx3ENLUI> |  |
|  | 4.4 Inscribed Polygons in a Circle  4.4a | <https://youtu.be/MNKzw9Q6QmY>  <https://youtu.be/XhnCRxC1vVo> |  |
|  | 4.5 Parallel Chords in a Circle  4.5a | <https://youtu.be/IFL64x_NpF8>  <https://youtu.be/Brp00Avhrfk> |  |
|  | 4.6 Tangent Angles  4.6a | <https://youtu.be/nBBPmdcQyQg>  <https://youtu.be/6QGFHzzql8M> |  |
|  | 4.7 Angles Outside a Circle  4.7a | <https://youtu.be/P5fbhDIYpzU>  <https://youtu.be/59-6DTwGJLI> |  |
|  | 4.8 Intersecting Chords  4.5a | <https://youtu.be/9G4z3MWFxpI>  <https://youtu.be/Brp00Avhrfk> |  |
|  | 4.9 Intersecting Chords Lengths  4.9a | <https://youtu.be/QvrbAt7wowk>  <https://youtu.be/0L-bT_4qXbM> |  |
|  | 4.10 Lengths of External Segments  4.10a | <https://youtu.be/ZcqsZ4Hvsdw>  <https://youtu.be/sya1mEngCbI> |  |
| MEASURING IN PLANE AND SPACE | 5.1 3D Solids and Cross Sections | <https://youtu.be/nEZXLp0kwaY> |  |
|  | 5.2 Volume of Prisms | <https://youtu.be/G9gSiR2Z2PE> |  |
|  | 5.3 Volume of Pyramids | <https://youtu.be/NOVF8KR-oyk> |  |
|  | 5.4 Volume of Spheres | <https://youtu.be/a5ycykoes6Y> |  |
|  | 5.5 Volume of Composite Figures |  | <https://youtu.be/UzDEJsNCE9s> |
|  | 5.6 Rotations of 2D Objects |  | <https://youtu.be/_U3O1r-mrTY> |
|  | 5.7 Applied Volume |  | <https://youtu.be/h0msp2eD11Y> |
|  | 5.8 Volume with Unit Conversions | <https://youtu.be/SmrLYin-708> |  |
|  | 5.9 Cavalieri's Principle |  |  |
|  | 5.10 Density |  |  |