| **Grade** | **Big Idea** | **Essential Questions** | **Concepts** | **Competencies** | **Standard** | **Eligible Content** | **Vocabulary** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **GEO** | Patterns exhibit relationships that can be extended, described, and generalized. Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. | How can patterns be used to describe relationships in mathematical situations? How can recognizing repetition or regularity assist in solving problems more efficiently?How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?How can geometric properties and theorems be used to describe, model, and analyze situations? | Congruence and Similarity | Use properties of congruence, correspondence, and similarity involving 2- and 3-dimensional figures.Apply rigid transformations to determine and explain congruence.Apply non-rigid transformations to determine and explain similarity.Using various methods, write formal proofs and/or use logic statements to construct or validate arguments.Make geometric constructions.Prove geometric theorems about lines, angles, triangles, and parallelograms while focusing on validity of underlying reasoning. | CC.2.3.HS.A.1 CC.2.3.HS.A.2 CC.2.3.HS.A.3 CC.2.3.HS.A.4 CC.2.3.HS.A.5 CC.2.3.HS.A.6 CC.2.3.HS.A.11 | G.1.3.1.1 G.1.3.1.2 G.1.3.2.1 | Acute AngleAdjacent AnglesAlternate Interior AnglesAltitudeAngleAngle BisectorArcArc LengthAreaChordCircleCircumferenceComplementary AnglesComposite FigureCompound EventsCompound FigureConditional ProbabilityCongruenceCorrespondenceCorresponding AnglesCylinder (Right Circular)DiameterDirect ProofEquilateral TriangleIndependenceIndirect ProofIsosceles TriangleLineMedianMidpointNon-rigid TransformationObtuse AngleParallelParallelogramPerimeterPerpendicularPointPolyhedraProofProof by ContradictionPyramid (Right)Pythagorean IdentityPythagorean TheoremRadiusRayRectangleRegular PolygonRhombusRight TriangleRigid TransformationScalene TriangleSecantSectorSegmentSemicircleSimilaritySlopeSphereSquareSupplementary AnglesSurface AreaTangentThree-DimensionalTrapezoidTrigonometric RatiosTwo-DimensionalVertical AnglesVolume |
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| **GEO** | Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. | How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving? | Measurement and Dimension | Use and/or compare measurements of angles.Use and/or develop procedures to determine, describe, or estimate measures of perimeter, circumference, area, surface area, and/or volume.Describe how a change in the linear dimension can affect perimeter, circumference, area, surface area, and/or volume.Visualize the relation between two-and three-dimensional objects.Apply geometric concepts in modeling situations. | CC.2.3.HS.A.3 CC.2.3.HS.A.8 CC.2.3.HS.A.9 CC.2.3.HS.A.12 CC.2.3.HS.A.13 CC.2.3.HS.A.14 | G.2.2.1.1 G.2.2.1.2 G.2.2.2.1 G.2.2.2.2 G.2.2.2.3 G.2.2.2.4 G.2.2.2.5 G.2.2.3.1 G2.3.1.1 G2.3.1.2 G2.3.1.3 G2.3.2.1 |  |