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| **Grade: High School Geometry Content Area Mathematics**  |
| **Timeline** | **Cluster** | **College and Career Readiness Standards** | **Student I Can Statement(s) / Learning Target(s)** | **Academic Vocabulary** | **Assessments** | **Notes / Self - Reflection** |
| First Half | Transformations | Standards 1 - 5 | Basic geometric vocabulary Rotate, reflect, translate geometric figures using graph paper, tracing paper, and geometry software | RotationReflectionTranslationPolygonPointLinePlaneAngle | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |
| First Half | Congruence | Standards 6 - 8 | Use transformations to prove congruenceProve triangle congruence using ASA, SAS, and SSS theorems | CongruentSimilarCorresponding partsASASASSSS | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |
| First Half | Prove Geometric Theorems | Standards 9 – 11 | Prove Theorems about Vertical Angels, Parallel Lines cut by a transversal, Interior Angles of a Triangle,Base angles of an isosceles triangle are congruent, Midpoints, Medians, and Parallelograms | Vertical AnglesParallel LinesTransversalInterior AnglesExterior AnglesAngle Pairs:-Alternate Interior-Corresponding-Same-Side InteriorDiagonal  | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |
| First Half | Constructions | Standards 12 - 13 | Make formal geometric constructions by hand and with technology, including regular polygons inscribed in a circle | StraightedgeCompassBisectorPerpendicularParallelEquilateralMedianAltitudeCircumcenterCircumscribeIncenter/Orthocenter | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |
| First Half | Coordinate Geometry | Standards 29 -33 | Determine existence of polygonsProve parallel and perpendicular linesRight trianglesPythagorean TheoremDistance formulaPerimeter and area | ParallelPerpendicularHypotenuseLegPerimeterAreaPolygonSlopeBaseHeightPythagorean TheoremDistance formula | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |
| Second Half | Similarity, Proof, and Trigonometry | Standards 14 -24 | DILATIONS USING A SCALE FACTORSIMILARITY TRANSFORMATIONSAA SIMILARITYPARTITION SEGMENT TO GIVEN RATIODEFINITIONS OF TRIGONOMETRIC RATIOSSINE COSINE OF COMPLEMENTARY ANGLESTRIG RATIOS AND PYTHAGOREAN THEOREMPROVE THE LAWS OF SINES AND COSINES AND USE THEM TO SOLVE UNKNOWN MEASUREMENTS IN RIGHT AND NON-RIGHT TRIANGLES | DILATION, SCALE FACTORCORRESPONDING PARTS SIMILARITY, TRANSFORMATIONSRATIOACUTE/RIGHT ANGLESCOMPLEMENTARY ANGLESPYTHAGOREAN THEOREMLAW OF SINESLAW OF COSINESOBLIQUE TRIANGLE | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |
| Second Half | Circles With and Without Coordinates | Standards 34 - 41 | PROVING CIRCLES SIMILARINSCRIBED ANGLES, RADII, AND CHORDSCONSTRUCT INSCRIBED/ CIRCUMSCRIBED TRIANGLES AND QUADRILATERALSTANGENT TO A CIRCLEARCS AND AREA OF SECTORSEQUATION OF A CIRCLE EQUATION OF A CIRCLECOORDINATE PROOFS | CIRCLEINSCRIBED ANGLE, RADII, CHORDCIRCUMSCRIBEDTANGENTARC, RADIUS, RADIAN, SECTOR | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |
| Second Half | Extending to Three Dimensions | Standards 25 – 28Standards 53 - 55 | EXPLAIN VOLUME FORMULAS AND USE THEM TO SOLVE FORMULASCROSS SECTIONS OF 3 DIMENSIONAL OBJECTSAPPLY GEOMETRIC CONCEPTS TO MODEL SITUATIONS | PERIMETERAREAVOLUMECIRCUMFERENCECYLINDERPYRAMIDCONESPHERECROSS SECTION | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |
| Second Half | Applications of Probability | Standards 42 - 52 | DESCRIBE EVENTS AS SUBSETS OF A SAMPLE SPACEDETERMINING IF TWO EVENTS ARE INDEPENDENTUNDERSTANDING CONDITIONAL PROBABILITYTWO WAY FREQUENCY TABLESCONDITIONAL PROBABILITY VS INDEPENDENCECONDITIONAL PROBABILITY OF A GIVEN B APPLY ADDITION RULEAPPLY MULTIPLICATION RULEPERMUTATIONS AND COMBINATIONSPROBABILITIES TO MAKE DECISIONSANALYZE DECISIONS AND STRATEGIES | SUBSET, OUTCOMES, UNION, INTERSECTION, COMPLIMENT, EVENTINDEPENDENTCONDITIONALFREQUENCY TABLEADDITION RULEMULTIPLICATION RULEPERMUTATIONS, COMBINATIONS, COMPOUND EVENT | Star BenchmarkTeacher created formative and summative assessmentOngoing informal assessmentPerformance based assessment |  |