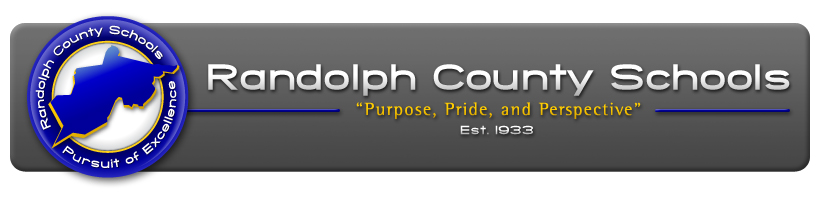
****

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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 | Rotation  Reflection  Translation  Polygon  Point  Line  Plane  Angle | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| First Half | Congruence | Standards 6 - 8 | Use transformations to prove congruence  Prove triangle congruence using ASA, SAS, and SSS theorems | Congruent  Similar  Corresponding parts  ASA  SAS  SSS | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance 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 Angles  Parallel Lines  Transversal  Interior Angles  Exterior Angles  Angle Pairs:  -Alternate Interior  -Corresponding  -Same-Side Interior  Diagonal | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| First Half | Constructions | Standards 12 - 13 | Make formal geometric constructions by hand and with technology, including regular polygons inscribed in a circle | Straightedge  Compass  Bisector  Perpendicular  Parallel  Equilateral  Median  Altitude  Circumcenter  Circumscribe  Incenter/Orthocenter | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| First Half | Coordinate Geometry | Standards 29 -33 | Determine existence of polygons  Prove parallel and perpendicular lines  Right triangles  Pythagorean Theorem  Distance formula  Perimeter and area | Parallel  Perpendicular  Hypotenuse  Leg  Perimeter  Area  Polygon  Slope  Base  Height  Pythagorean Theorem  Distance formula | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Second Half | Similarity, Proof, and Trigonometry | Standards 14 -24 | DILATIONS USING A SCALE FACTOR  SIMILARITY TRANSFORMATIONS  AA SIMILARITY  PARTITION SEGMENT TO GIVEN RATIO  DEFINITIONS OF TRIGONOMETRIC RATIOS  SINE COSINE OF COMPLEMENTARY ANGLES  TRIG RATIOS AND PYTHAGOREAN THEOREM  PROVE THE LAWS OF SINES AND COSINES AND USE THEM TO SOLVE UNKNOWN MEASUREMENTS IN RIGHT AND NON-RIGHT TRIANGLES | DILATION, SCALE FACTOR  CORRESPONDING PARTS  SIMILARITY, TRANSFORMATIONS  RATIO  ACUTE/RIGHT ANGLES  COMPLEMENTARY ANGLES  PYTHAGOREAN THEOREM  LAW OF SINES  LAW OF COSINES  OBLIQUE TRIANGLE | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Second Half | Circles With and Without Coordinates | Standards 34 - 41 | PROVING CIRCLES SIMILAR  INSCRIBED ANGLES, RADII, AND CHORDS  CONSTRUCT INSCRIBED/ CIRCUMSCRIBED TRIANGLES AND QUADRILATERALS  TANGENT TO A CIRCLE  ARCS AND AREA OF SECTORS  EQUATION OF A CIRCLE  EQUATION OF A CIRCLE  COORDINATE PROOFS | CIRCLE  INSCRIBED ANGLE, RADII, CHORD  CIRCUMSCRIBED  TANGENT  ARC, RADIUS, RADIAN, SECTOR | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Second Half | Extending to Three Dimensions | Standards 25 – 28  Standards 53 - 55 | EXPLAIN VOLUME FORMULAS AND USE THEM TO SOLVE FORMULAS  CROSS SECTIONS OF 3 DIMENSIONAL OBJECTS  APPLY GEOMETRIC CONCEPTS TO MODEL SITUATIONS | PERIMETER  AREA  VOLUME  CIRCUMFERENCE  CYLINDER  PYRAMID  CONE  SPHERE  CROSS SECTION | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Second Half | Applications of Probability | Standards 42 - 52 | DESCRIBE EVENTS AS SUBSETS OF A SAMPLE SPACE  DETERMINING IF TWO EVENTS ARE INDEPENDENT  UNDERSTANDING CONDITIONAL PROBABILITY  TWO WAY FREQUENCY TABLES  CONDITIONAL PROBABILITY VS INDEPENDENCE  CONDITIONAL PROBABILITY OF A GIVEN B  APPLY ADDITION RULE  APPLY MULTIPLICATION RULE  PERMUTATIONS AND COMBINATIONS  PROBABILITIES TO MAKE DECISIONS  ANALYZE DECISIONS AND STRATEGIES | SUBSET, OUTCOMES, UNION, INTERSECTION, COMPLIMENT, EVENT  INDEPENDENT  CONDITIONAL  FREQUENCY TABLE  ADDITION RULE  MULTIPLICATION RULE  PERMUTATIONS, COMBINATIONS, COMPOUND EVENT | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |