

# Geometry

## 1st Nine Weeks

### Introduction to Geometry (13 days)

Points lines and planes  
Distance formula and Pythagorean theorem  
Midpoint of a segment and its uses  
-----*(Test 1)*-----

### Angles and constructions (8 days)

Identify angles  
Classify angles  
Measure angles  
Use congruent angles  
Construct congruent segments and angles  
Construct bisectors of angles and segments  
-----*(Test 2)*-----

### Logic and proofs (7 days)

Inductive reasoning  
Conditional statements  
Advertising project  
Angle relationships  
Introduction to proofs  
-----*(Test 3)*-----

Parallel lines (15 days)  
Parallel lines and transversals  
Parallel and perpendicular line equations  
-----*(Test 4)*-----

## 2nd Nine Weeks

### Triangles (15 days)

Triangle sum  
Exterior angle theorem  
Corresponding parts of congruent triangles  
SSS, SAS, ASA, AAS, HL  
Properties of isosceles and equilateral triangles  
-----*(Test 1)*-----

### More triangles (10 days)

Perpendicular bisectors  
Angle bisectors  
Medians  
Altitudes  
Triangle inequality and its applications  
-----*(Test 2)*-----

### Rectangles and parallelograms (9 days)

Sum of interior and sum of exterior of polygons  
Sides and angles of parallelograms  
Sides and angles of rectangles  
-----*(Test 3)*-----

## 3rd Nine Weeks

### More quadrilaterals (5 days)

Sides and angles of rhombi  
Sides and angles of squares  
Sides and angles of kites  
Sides and angles of trapezoids  
-----*(Test 1)*-----

### Similar figures (14 days)

Ratios and proportions  
Proportional parts of triangles  
Proportional parts with parallel lines  
Parts of similar triangles  
-----*(Test 2)*-----

### Right triangles (15 Days)

Relationships between parts of right triangles  
Geometric mean  
Pythagorean theorem  
45-45-90 triangles  
30-60-90 triangles  
Trig to find side length and angle measure  
Angles of depression and elevation  
-----*(Test 3)*-----

## 4th Nine Weeks

### Transformations (15 days)

Draw reflections, Rotations, Translations, Dilations  
Glide reflections and other composites  
Reflectional and rotational symmetry  
-----*(Test 1)*-----

### Circles (20 days)

Parts of a circle  
Circumference  
Central angle and arc length  
Arc, chord and diameter  
Inscribed angles  
Tangents and circumscribes polygons  
Measures of segments inside and outside the circle  
Equation of a circle  
-----*(Test 2)*-----

### 2D and 3D shapes (8 days)

Area and perimeter parallelogram and triangle  
Area kite, trapezoid rhombus  
Area of circle and sector  
Area of regular polygon and composite figures  
Area of similar figures  
-----*(Test 3)*-----  
Surface area of prisms and cylinders  
Surface are of pyramids and cones  
Volume of prisms and cylinders  
Volume of pyramids and cones  
Surface area and volume and sphere  
Review for final