Chapter 11

Regular polygons - the sides have equal length and the angles are equal
Congruent – having the same size and shape
congruent angles - have the same measure

Polygons - a close figure made up of line segments. It has three or more sides.

Triangle - 3 sides Quadrilateral - 4 sides Pentagon - 5 sides
Hexagon - 6 sides Heptagon - 7 sides Octagon - 8 sides
Nonagon - 9 sides Decagon - 10 sides

Triangles

equilateral triangle - all sides are the same length
isosceles triangle - two sides are the same length
scalene triangle - no sides have the same length
right triangle - has one right angle
acute triangle - all the angles are less than 90 degrees (acute)
obtuse triangle – one angle is more than 90 degrees (obtuse)

Quadrilaterals

Parallelogram - both pairs of sides are parallel (lines that never intersect)
trapezoid - has only one pair of parallel sides.
rhombus - a parallelogram with all sides the same length
rectangle - a parallelogram with 4 right angles
square - a rectangle with all sides the same length

Perimeter- the a distance around a figure . Add all the sides.
Circumference - the distance around a circle $C = \pi d$

Area - the amount of space inside the figure.

Area of a rectangle or square $A = L \times W$
Area of a triangle $A = \frac{1}{2}(bh)$
Area of a parallelogram $A = B \times H$
Area of a trapezoid $A =$ base 1 + base 2 x height divided by 2

Polyhedron – a solid figure with faces that are polygons
Base – a plane figure that is usually a polygon. Used in finding the volume of prisms
Lateral face – a polygon that connects with the bases of a polyhedron
Prism – a solid figure with two congruent bases and lateral faces that are rectangles
Volume – the amount of space a solid occupies. L x W x H
Pyramid – has one base and triangular faces.
Triangular pyramid – has a triangle base
Rectangular pyramid – has a rectangle base
Pentagonal pyramid – has a pentagon base