CHAPTER – 5

Understanding Elementary Shapes

- The distance between the end points of a line segment is its length.
- A graduated ruler and the divider are useful to compare lengths of line segments.
- When a hand of a clock moves from one position to another position we have an example for an angle.
- One full turn of the hand is 1 revolution.
- A right angle is ¼ revolution and a straight angle is ½ a revolution.
- We use a protractor to measure the size of an angle in degrees.
- The measure of a right angle is 90° and hence that of a straight angle is 180°.
- An angle is acute if its measure is smaller than that of a right angle and is obtuse if its measure is greater than that of a right angle and less than a straight angle.
- A reflex angle is larger than a straight angle.
- Two intersecting lines are perpendicular if the angle between them is 90°.
- The perpendicular bisector of a line segment is a perpendicular to the line segment that divides it into two equal parts.
- Triangles can be classified as follows based on their angles:

Nature of angles in the triangle	***Name***
Each angle is acute	Acute angled triangle
One angle is a right angle	Right angled triangle
One angle is obtuse	Obtuse angled triangle

- Triangles can be classified as follows based on the lengths of their sides:

Nature of sides in the triangle	**Name**
All the three sides are of unequal length	Scalene triangle
Any two of the sides are of equal length	Isosceles triangle
All the three sides are of equal length	Equilateral triangle

- Polygons are named based on their sides.

Number of sides	**Name of the Polygon**
3	Triangle
4	Quadrilateral

5	Pentagon
6	Hexagon
8	Octagon

- Quadrilaterals are further classified with reference to their properties.

PROPERTIES	**Name of the Quadrilateral**
One pair of parallel sides	Trapezium
Two pairs of parallel sides	Parallelogram
Parallelogram with 4 right angles	Rectangle
Parallelogram with 4 sides of equal length	Rhombus
A rhombus with 4 right angles	Square

- We see around us many three dimensional shapes. Cubes, cuboids, spheres, cylinders, cones, prisms and pyramids are some of them.