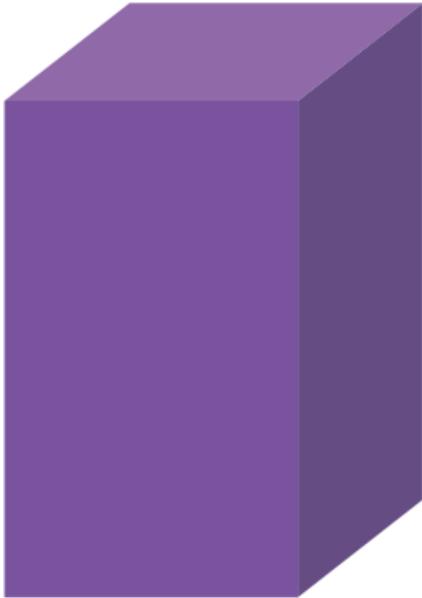# Volume and Surface Area

Surface Area and Volume

Surface Area - is the measure of total area of all the flat and curved surfaces of a three - dimensional figure.

Units : $mm^2, cm^2, dm^2, m^2, km^2$

Volume - is the measure of the space occupied by a three-dimensional figure.

Units : $mm^3, cm^3, dm^3, m^3, km^3$

Cuboid

Cuboid - A three-dimensional figure that has six rectangular faces at right angles to each other.
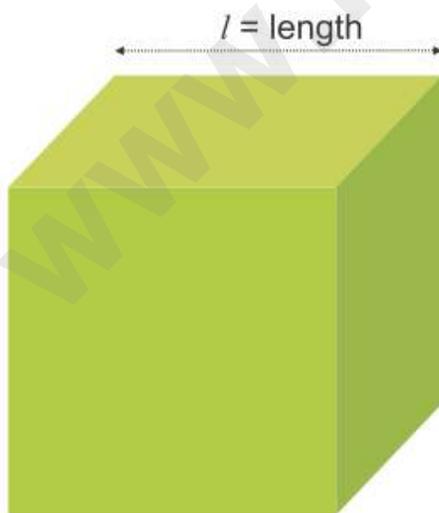
Vertices	Edges	Surface (Faces)	
		Total	Type
8	12	6	Rectangular

l = length
b = breadth
h = height
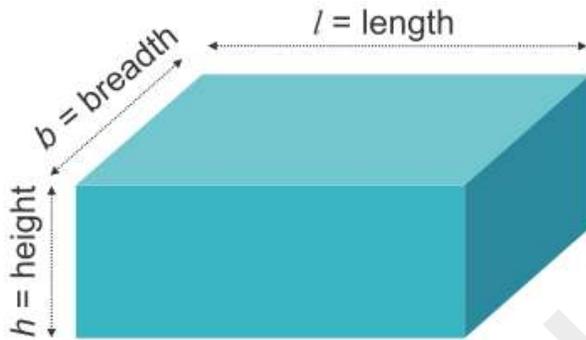
Lateral Surface Area	$2h(l + b)$
Surface Area	$2(l \times b) + 2(b \times h) + 2(l \times h)$
Volume	$l \times b \times h$

Cube

Cube - A three-dimensional figure that has six equal square faces.

l = length

Vertices	Edges	Surface (Faces)	
		Total	Type
8	12	6	Square

Lateral Surface Area	$4 \times (l)^2$
Surface Area	$6 \times (l)^2$
Volume	$(l)^3$