Surface Area:

Surface area is the total area of all the flat faces that cover a 3D shape. If we open the shape and lay all faces flat, the total area of these faces is the surface area.
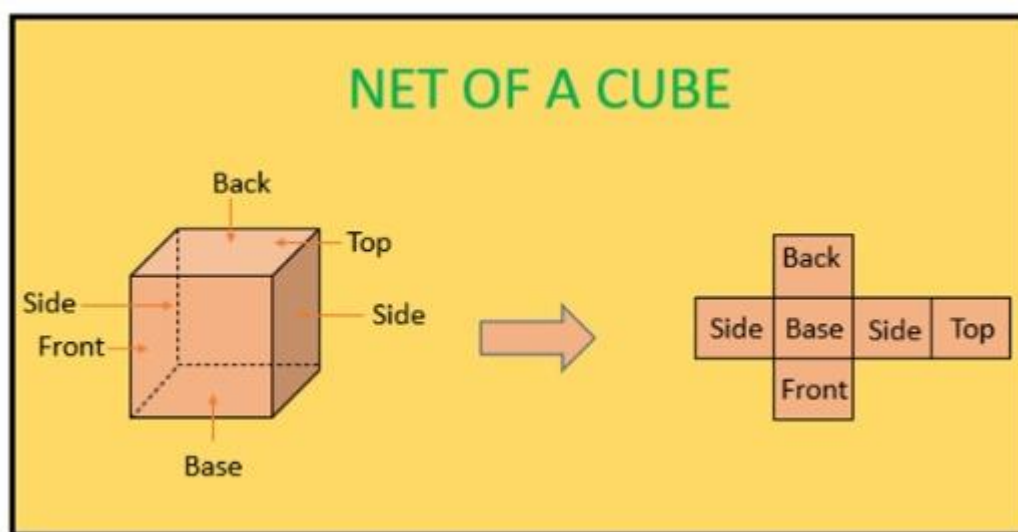
Key features of a cube:

• 6 faces

• All faces are squares

• All sides are equal

Surface Area of a Cube:

If one side = s

Area of one face = s × s = s²

Total Surface Area=6×$s²$

Example:

Side = 4 cm

6×16=96 cm²

We multiply by 6 because a cube has 6 identical square faces.
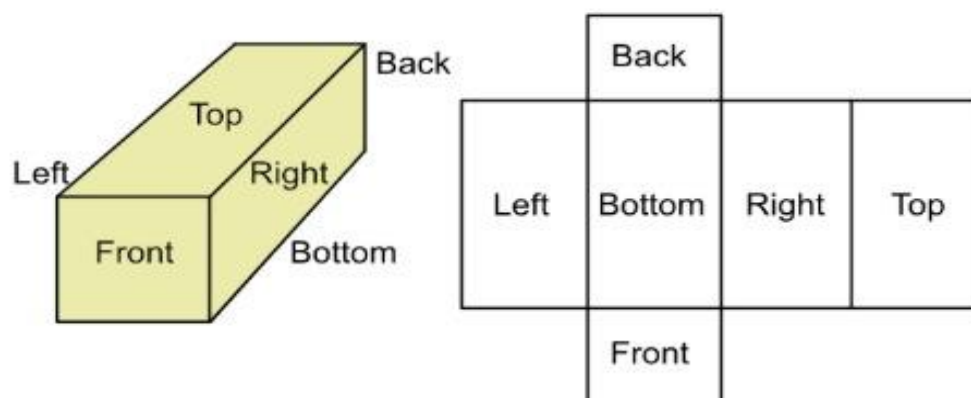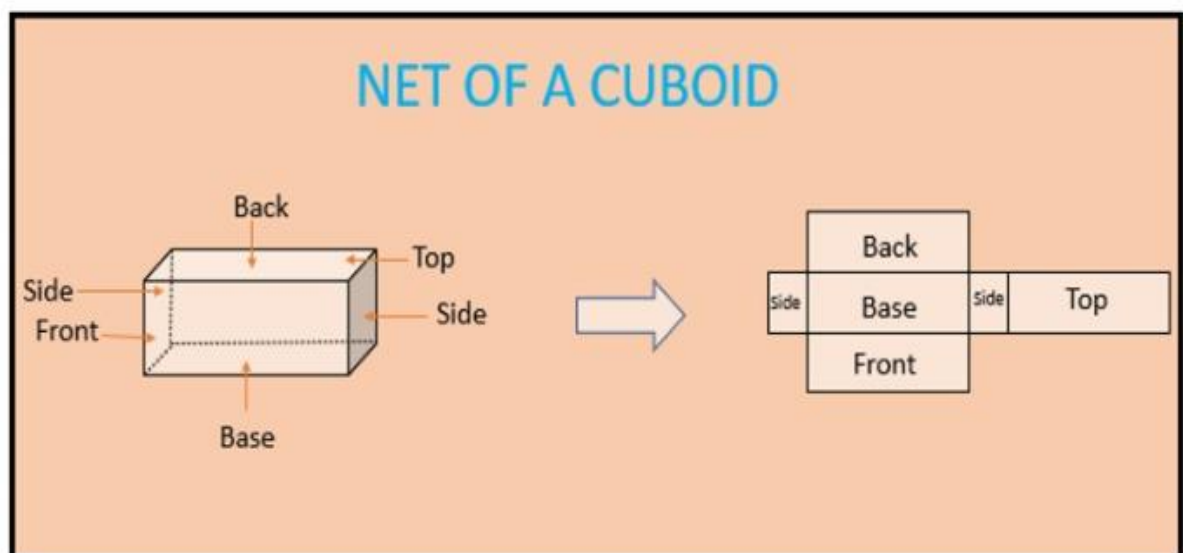
Surface Area of a Cuboid:

Key features of a cuboid:

• 6 faces

• Faces are rectangles

• Opposite faces are equal

• Length = l

• Width = w

• Height = h

Faces:

• Top & bottom → l × w

• Front & back → l × h

• Left & right → w × h

NET OF A CUBOID

Surface Area formula:

$2(lw+lh+wh)$

Example:

l = 6 cm, w = 4 cm, h = 3 cm

2(6×4+6×3+4×3)

2(24+18+12) =2(54) =108 cm2

We multiply by 2 because each face has a matching face.