Area, Surface Area & Volume

6th Grade

Nets, surface area and volume formulas for the solids they are tested on.

VOLUME — how much fits inside

Rectangular prism
$V = l \times w \times h$ — or $V = B \times h$, B = base area

Cube
$V = s^3$ — every edge the same

Triangular prism
$V = \frac{1}{2}bh \times \text{length}$ — base area × length

Cylinder
$V = \pi r^2 h$ — circle area × height

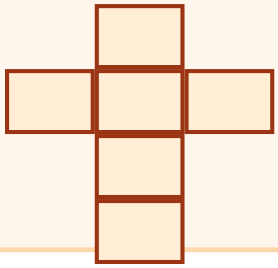
SURFACE AREA — the wrapping paper

Rectangular prism
$SA = 2lw + 2lh + 2wh$ — six faces, three pairs

Cube
$SA = 6s^2$ — six identical squares

Cylinder
$SA = 2\pi r^2 + 2\pi rh$ — two circles + the label

NETS — unfold it and count



A net is the solid flattened out. Surface area is just the area of every piece of the net, added up.

A cube net always has six squares — count them before you calculate.

UNITS
Surface area is squared (cm^2). Volume is cubed (cm^3).