

# The FRAME Routine

## Key Topic 3-D Figures

is about...

using formulas to find the surface area and volume

☐ Main idea  
Cones

☐ Main idea  
Sphere

☐ Main idea  
Similar Figures

Essential details

Essential details

Essential details

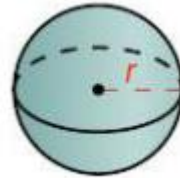
Surface Area

$$LA = \pi r l$$
$$SA = LA + B$$



$$B = \pi r^2$$

$$SA = 4\pi r^2$$



Scale factor:  $a:b$

Ratio of Areas:  $a^2:b^2$

Essential details

Essential details

Essential details

Volume

$$V = \frac{1}{3} Bh$$

*h is the height of the figure*

$$B = \pi r^2 h$$

*h is the height of the base*

$$V = \frac{4}{3} \pi r^3$$

Scale factor:  $a:b$

Ratio of Volumes:  $a^3:b^3$

**So What? (What's important to understand about this?)**

Knowing what formula to use to find surface area and volume is the hardest part of the process