1 mL = 1 cm³ = 1 cc (cubic centimeter)

Investigation: Make a cylinder of clay that looks like 1 mL in a 10 mL graduated cylinder.

↔ this is 1 mL of clay! Looks like a mini soda can

Next, mold mini-soda can into a snowman:

Now mold the snowman into a cube, and measure each side (metric, centimeters).

Volume of cube = \( \text{Length} \times \text{Width} \times \text{Height} \)
= \( \frac{1}{1}\text{cm} \times \frac{1}{1}\text{cm} \times \frac{1}{1}\text{cm} \)
= \( \frac{1}{1}\text{cm}^3 \)
= \( \frac{1}{1}\text{cubic centimeter} \)
= \( \frac{1}{1}\text{mL (milliliter)} \)

*The clay took many shapes, but there was always the same amount of clay, 1.0 cm³! Now, reread text p. 6*
10/2/15 DENSITY OF CLAY back of M6

Density is MASS per VOLUME. \[ D = \frac{M}{V} \]

Density_{\text{water}} = 10 \text{ grams per } 10 \text{ mL} = \frac{10 \text{ g}}{10 \text{ mL}} = 1 \text{ g/mL}

Let's get Density of CLAY! \[ D = \frac{M}{V} \]

Density_{\text{clay}} = \frac{\text{mass of our cube}}{1 \text{ cm}^3} = \frac{2.5 \text{ g}}{1 \text{ cm}^3} = 2.5 \text{ g/cm}^3

HYPOTHESIS: Based on density numbers, will clay float in water?

DATA: write one of these: \[ \text{ Floated } \quad \text{ Sank } \]

~2.5 g/cm³ is greater than 1 g/cm³

Clay is denser than water, should sink (center of Earth likes it better)
HYPOTHESIS: WOOD – **FLOAT OR SINK?** (Circle one for your HYPOTHESIS)

and...predict density of wood:  **5** grams/cm³

Sooo....you really just have to predict the mass of 1.0 cm³ block of wood.

EXPT: Mass of 1.0 cm³ wood = **60** grams/cm³

DATA: write one of these: Floated Sank

CONCLUSION:

**6** g/cm³ is less dense than **10** g/cm³ (water)

Smaller number for g/cm³ means less dense, floats!