

$$Q = mC\Delta T$$

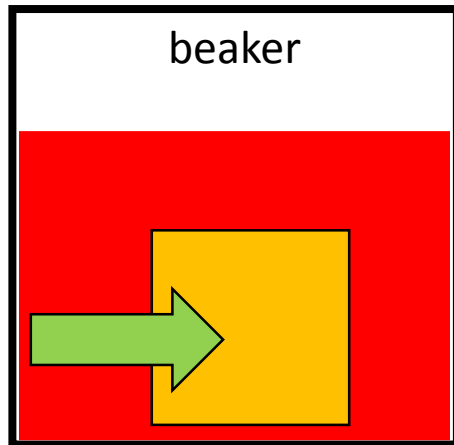
Purpose of the lab:

Solve for C (specific heat) of Brass

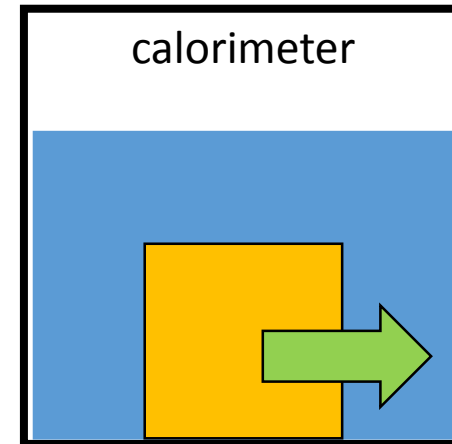
Energy absorbed $\rightarrow Q = +$
Energy released $\rightarrow Q = -$

ENERGY IN = ENERGY OUT

$Q_{\text{metal}} = +$
 $Q_{\text{water}} = -$



Hot Water
Metal is heating up
Energy transfer into METAL



Cold Water
Water is heating up
Energy transfer into WATER

$Q_{\text{metal}} = -$
 $Q_{\text{water}} = +$

$$Q_{\text{water}} = \text{?}$$

$$m_{\text{water}} = \text{From the water you put in the calorimeter}$$

1mL = 1g

$$C_{\text{water}} = 4.184 \text{ J/g}^\circ\text{C}$$

$$\Delta T_{\text{water}} = T_f - T_i$$

(From your thermometer readings)

$$Q_{\text{metal}} = -Q_{\text{water}}$$

Energy IN must = energy OUT!
(opposite sign, not necessarily negative)

$$m_{\text{metal}} = \text{From your scale}$$

$$C_{\text{metal}} = \text{?}$$

$$\Delta T_{\text{metal}} = T_f - T_i$$

T_f From water 100°C From boiling

(At the end the metal and water will be same temp) (The metal was put in the boiling water so it reached 100°C)