

# Review

Friday, October 9, 2015  
4:57 PM

What is the difference between thermal energy and temperature?

total energy

average energy

Compare melting point and freezing point for a substance.

Does a substance change temperature while it is changing state?

Parts of temperature vs. time graph



Definitions of  $c$ ,  $\Delta H_{\text{vap}}$ ,  $\Delta H_{\text{fus}}$

Use equations:  $q = mc\Delta T$

$$q = n\Delta H_{\text{vap}}$$
$$q = n\Delta H_{\text{fus}}$$

$q = m \Delta H_{fus}$

Phase diagrams: Know terms

Interpret phase diagram

Vapor pressure: - definition

temperature  
at which  
vapor pressure  
equals surrounding  
pressure

- use vapor pressure to define boiling point

- Interpret vapor pressure vs. temp. graph

Convert SI units (OLD MATERIAL)

Properties of gases (OLD material)

Practice problems:

- ① 48 g of mercury changes temperature from  $28^{\circ}\text{C}$  to  $45^{\circ}\text{C}$ . How much heat did the mercury absorb when this occurred?
- ② 1.2 moles of  $\text{H}_2\text{O}(\text{l})$  turns to gas. How much energy did the water absorb?
- ③ 0.8 moles of  $\text{H}_2\text{O}(\text{l})$  turns to solid. How much energy

did the water release?

p. 559, 571 for constants