


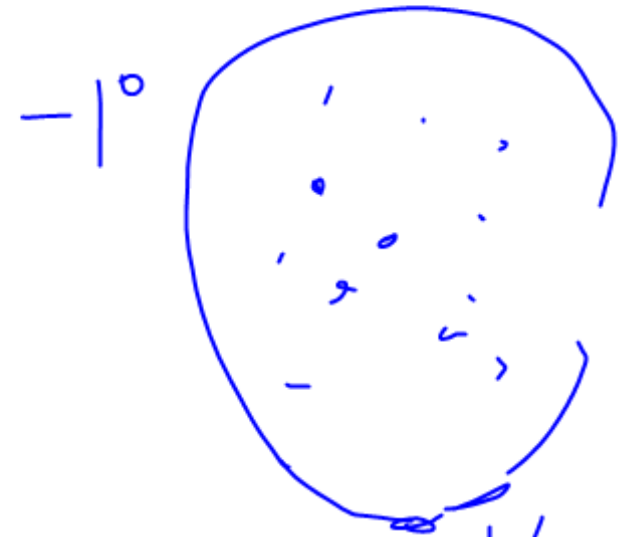
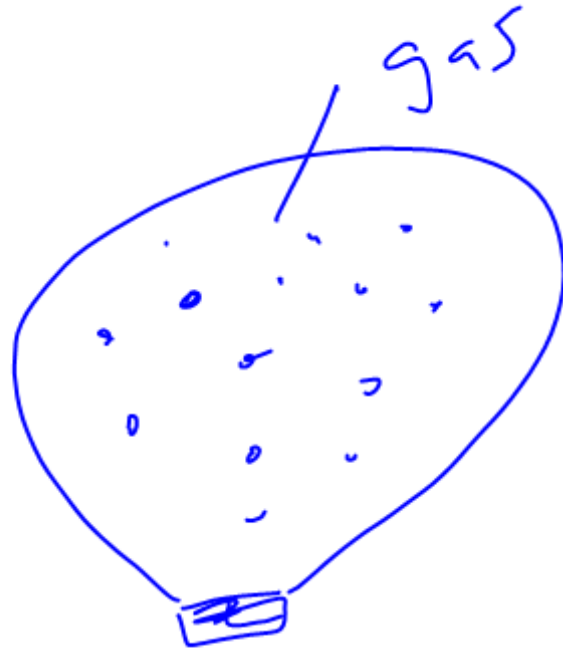
# - Temperature - Avg. kinetic

energy

- Fahrenheit - Freeze =  $32^{\circ}$   
boiling =  $212^{\circ}$
- Celsius - Freeze =  $0^{\circ}$   
Boiling =  $100^{\circ}$
- Kelvin - 0 is Absolute!   
Freeze =  $273$   
boiling =  $373$

Kelvin:

0°



smaller  $\frac{1}{273^{\text{rd}}}$

-273

$\frac{273^{\circ}}{273}$   
 ↪



No

Motion!

Absolute!

- Thermal Energy - All kinetic energy of All the molecules

- Heat - thermal energy moving from warmer object to a cooler one.

- Temperature - avg. kinetic energy

$$\Delta E = \overset{\text{Mass}}{\text{--- kg}} \times \overset{\text{S.H.}}{\text{---}} \left( \text{J/kg}^\circ\text{K} \right) \times \overset{\Delta\text{Temp}}{\text{---}} \text{K}$$


Specific Heat = amt. of energy ↑ temp. of  
1 kg 1°K.

1. a. Avg. kinetic energy <sup>20</sup>  
 b. mol. heat ↑ movement  
 c. use lines, based on  $\Delta T$

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- 2 a. therm. energy from hot → cold  
 b. overall Avg. therm. temp., heat - hot-cold  
 c. 

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3. a. difference in specific heat, d: (L. Chem.)

b.  $(.032 \text{ kg}) (235) (40 \text{ K}) = 320.8 \text{ J}$

4.  $(F-32) \times 5 / 9 = (-27)(5) = -135 / 9 =$

5.  $(860-32) = 828 \times 5 = 4140 / 9 = 460^\circ\text{C}$  (-150 C)