

## 153 - Kelvin Scale

TODAY'S  
DATE

E.Q.: How cold can a substance become?

absolute zero - the temp defined as  $0\text{ K}$  on the Kelvin Scale and  $-273.15^\circ\text{C}$  on the Celsius scale, and considered to be the lowest possible temp. that matter can reach

Kelvin scale - a temp scale w/ units in Kelvins,  $\text{K}$ , that sets the zero point @  $-273.15^\circ\text{C}$ , which is also known as absolute zero

Kelvin units are equivalent in scale to Celsius units

$$\text{K} = ^\circ\text{C} + 273.15$$

$$^\circ\text{C} = \text{K} - 273.15$$

Kinetic molecular theory →  
States that gases are  
composed of tiny particles  
in continuous, random,  
straight-line motion and  
collide w/ each other +  
the walls of the container

BIG IDEA: on a particle level,  
all matter is in constant motion

Temperature → a measure of the  
avg. kinetic energy of atoms  
and molecules in a sample  
of matter

atoms or molecules are  
constantly moving @ an  
avg. speed that rises w/  
↑ing temp.