

## Solids, liquids and gases Quiz 6

### Units

unit of temperature : degrees \_\_\_\_\_ ( $^{\circ}$ \_\_\_), and \_\_\_\_\_ (\_\_\_),

unit of density \_\_\_\_\_

unit of pressure, \_\_\_\_\_

### Density and pressure

density = \_\_\_\_\_

$\rho$  = \_\_\_\_\_

pressure = \_\_\_\_\_

$p$  = \_\_\_\_\_

the pressure at a point in a gas or liquid which is at rest acts \_\_\_\_\_

In a liquid: pressure difference = \_\_\_\_\_

$p$  = \_\_\_\_\_

### Change of state

a substance can change state from \_\_\_\_\_ by the process of melting

a substance can change state from \_\_\_\_\_ by the process of evaporation or boiling

particles in a \_\_\_\_\_ have a random motion within a close-packed structure

particles in a \_\_\_\_\_ vibrate about fixed positions within a close-packed regular structure

### Ideal gas molecules

\_\_\_\_\_, is random motion caused by the random motion of air molecules.

molecules in a gas have a random motion and that they exert a \_\_\_\_\_ and hence a \_\_\_\_\_ on the walls of the container

there is an \_\_\_\_\_ of temperature which is  $-273^{\circ}\text{C}$

the kelvin temperature = the Celsius temperature + \_\_\_\_\_

an increase in temperature results in an increase in the \_\_\_\_\_ of gas molecules

**the kelvin temperature of the gas is proportional to the \_\_\_\_\_ of its molecules**

for a gas in a sealed container when the kelvin temperature increases the pressure \_\_\_\_\_.

**the relationship between the pressure and kelvin temperature of a fixed mass of gas at constant volume:**

\_\_\_\_\_

**the relationship between pressure and volume of a fixed mass of gas at constant temperature** \_\_\_\_\_