13 in the stars'

14 $0^{\circ}C = 273K$

15

a $137^{\circ}C = 410K$

b $23^{\circ}C = 296K$

c $121^{\circ}C = 394K$

d $93K = -180^{\circ}C$

e $499K = 223^{\circ}C$

f $270K = -3^{\circ}C$

5
When temperature is increased, particles move more randomly due increased kinetic energy

6 Decreasing the temperature makes particles to move in a lower speed.

7 The average kinetic energy increase from solid which is slow to liquid which is medium, gas which is fast and finally Plasma which is violent.

8 absolute zero. This is 0K
This is the temparature where all molecular motion stops

9 89 0K or -273°C

9 STP - Standard Temperature and Pressure

10 Standard Temparature
0°c or 273K

11 Standard pressure
101.3 kPa
1 atm
760 mmHg
760 torr

12. Plasma.

1.

Kinetic energy

This is the kind of energy of bodies in motion

2.

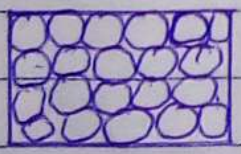
1. All the three states of matter are made up of small tiny particles ie atoms

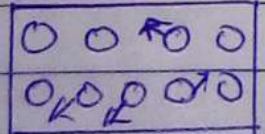
2. The tiny particles are in continous random motion. The electrons (free electrons) are in random motion with gases moving more random.
   - Liquids vibrate around moving points
   - Solids vibrate around a fixed point.
3. They exhibit perfect elastic colision where no energy is lost.

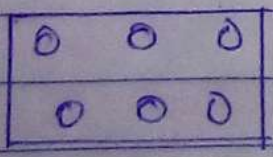
3

This means that the total energy of the colliding particles is equal the same even after collision.

4

Solid  - Particles of a solid are closely packed and therefore they do not have physical movement, the vibrate about their sockets

Liquid  - Particles of a liquid are far much apart than those of liquid. They move randomly inside the enclosed space.

gas  - Particles of a gas are far much apart than both liquids and ~~gases~~ solids. They move more randomly than the other states of matter.