Revision unit 2

Physical properties – Which do we use to identify substances?

Sulfur crystals

EXTENSIVE

DEFINITION

39 g	mass	0.84 g
18.8 cm^3	volume	4.1 cm^3

INTENSIVE

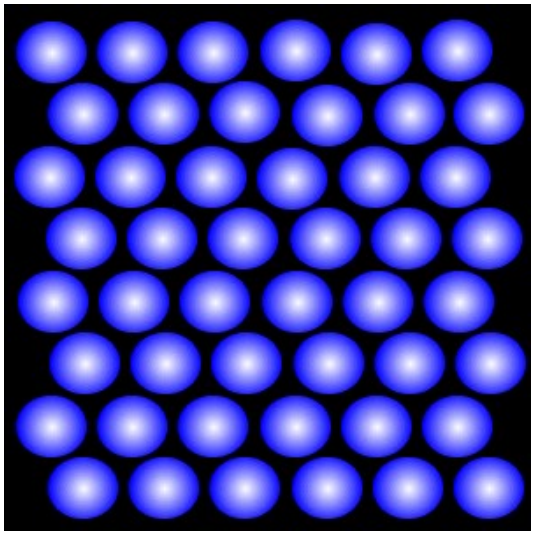
DEFINITION

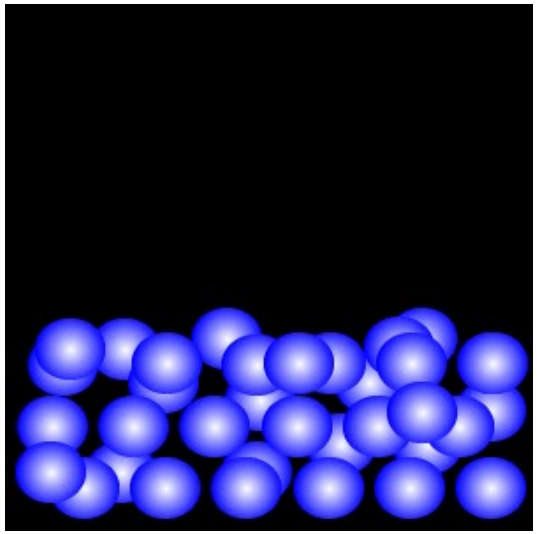
yellow	color	yellow
115.2°C	melting point	115.2°C

Sulfur powder

Kinetic Molecular Theory

- How does it explain the properties of the different states of matter?

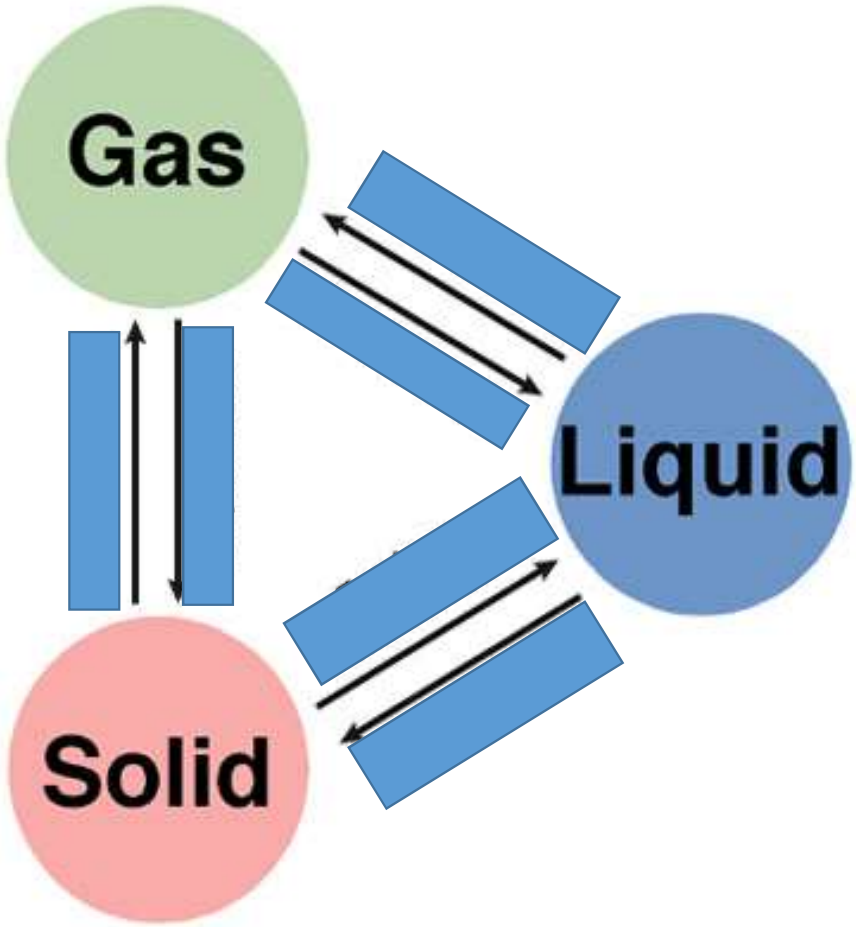




Change of state

Changes of state happen when you add or take away energy

Complete the diagram



Change of state

At these temperaturas, what state are these elements in?

You need to find their melting points and boiling points.

Element	0°C	100°C	500°C
Oxygen			
Sodium			
Mercury			
Zinc			
Gold			

Gas Laws Practice – Show your calculations

- A 500mL can of gas is at a pressure of 2atm. It is crushed to a volume of 10mL. What is the pressure?
- 10L of gas at -233°C is heated to a volume of 20L, what is the new temperature, if the pressure stays constant?
- We have a gas with an initial volume of 100 cm3 at 27ºC. Calculate its volume at 87ºC if the pressure is constant. Give your final answer in L.
- A sample of gas has a volume of 20cm3 at 127 ºC and 90 kPa. What volume will the gas occupy at 20 kPa and 27 ºC?

How does this liquid turn to vapour without boiling?