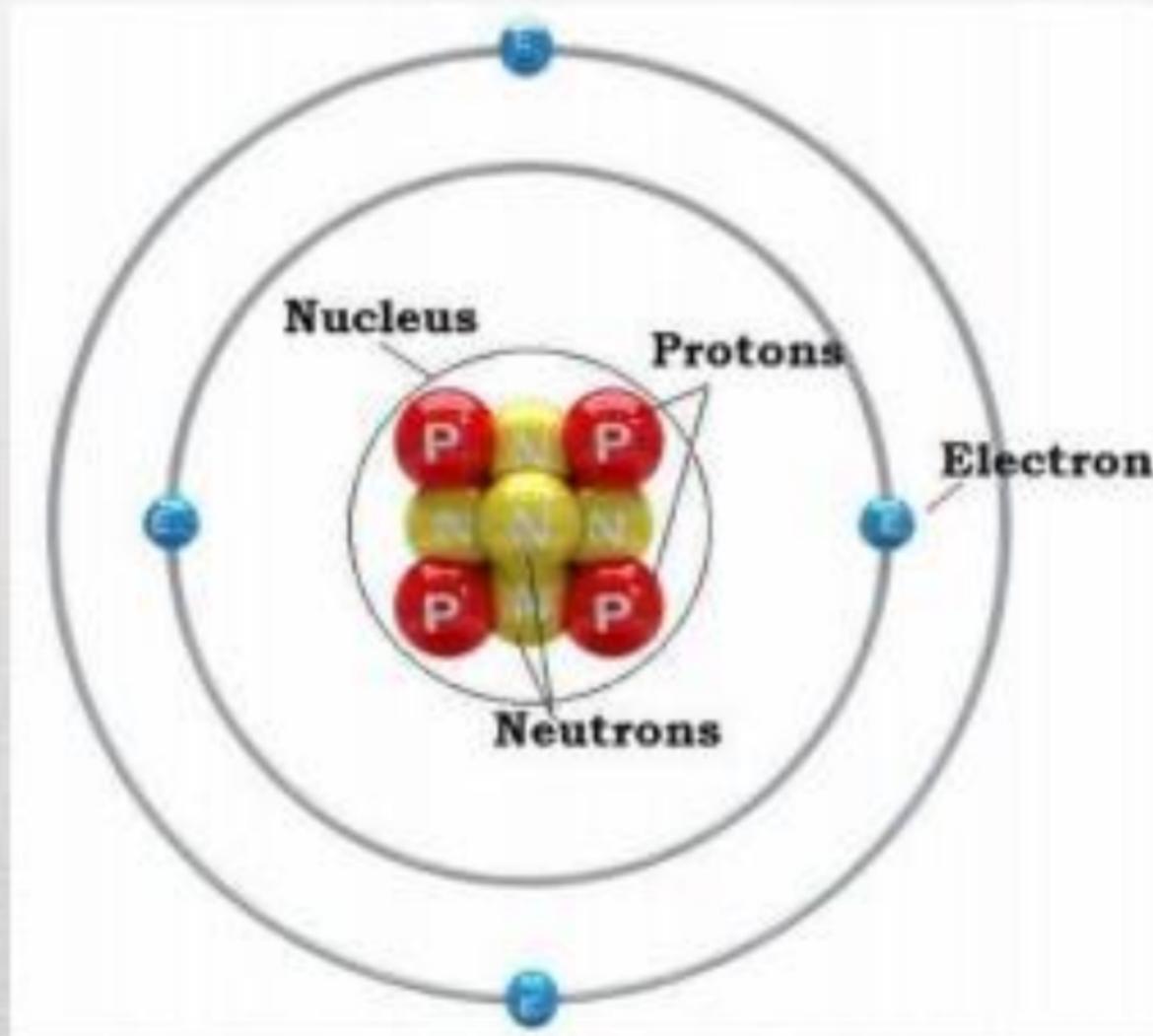


3

Atomic Structure, Matter and Radioactivity



①

Matter in Our Surroundings - Class 9th, Chapter 1

Is matter around us pure?, class 9th, chapter 2

Atom and molecule, class 9th, chapter 3

Structure of Atom, class 9th, chapter 4

✓
1 to 4

Matter in Our Surroundings - Class 9th, Chapter 1

पदार्थ → वह सबकुछ → (घिरे) → आपतन घरे

MATTER in our Surroundings



SOLID



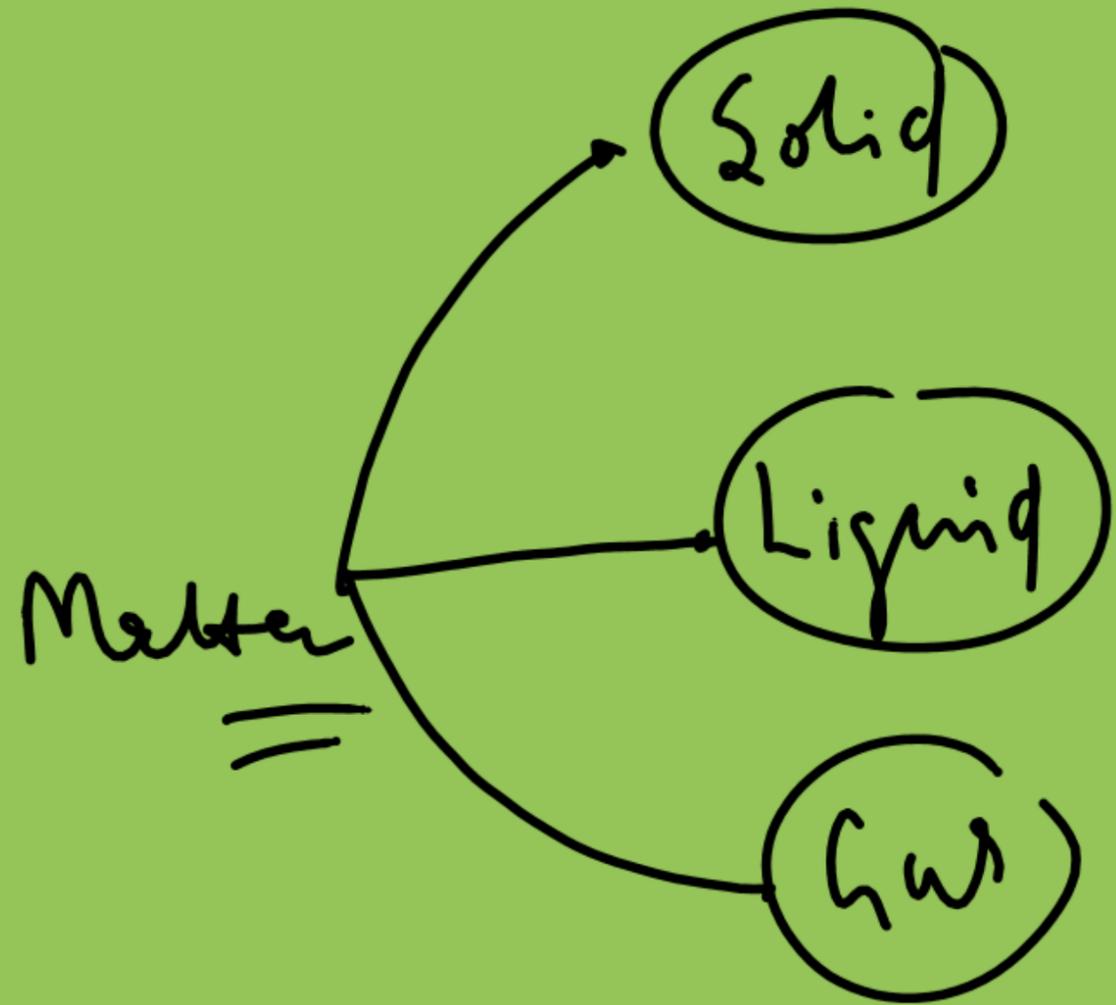
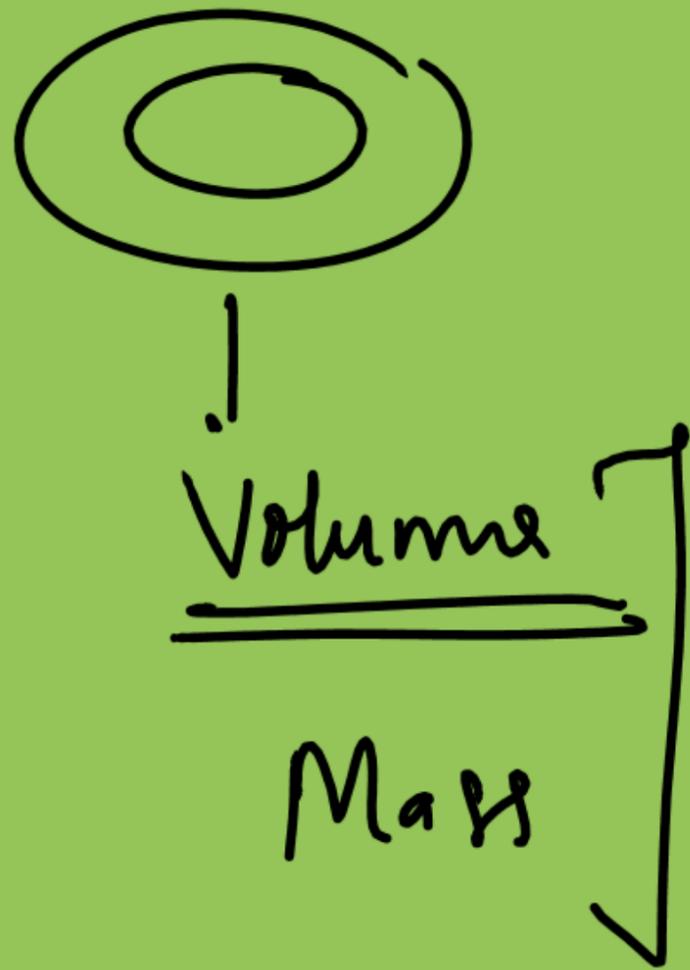
LIQUID



GAS

स्वयं
प्रव्यमान

पदार्थ



Introduction

Note: पदार्थ को दो भागों में विभाजित किया जाता है

Pancha Tattva

THE FIVE ELEMENTS



Water / Earth / Air / Fire / Sky

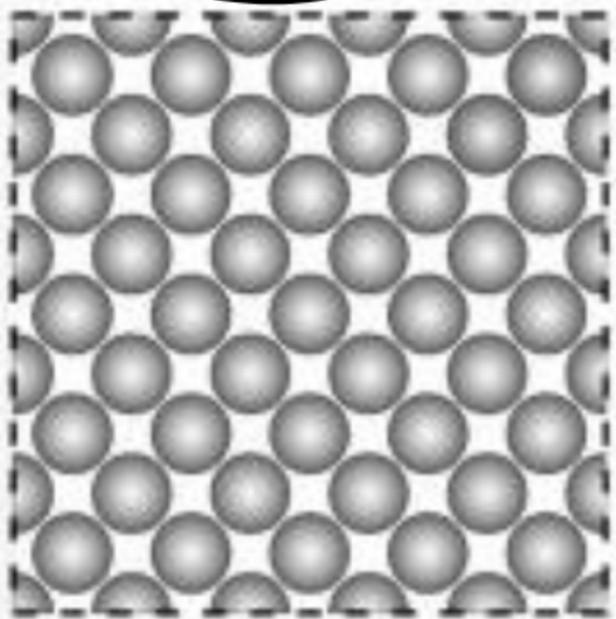
① Chemical Matter

② Physical Matter

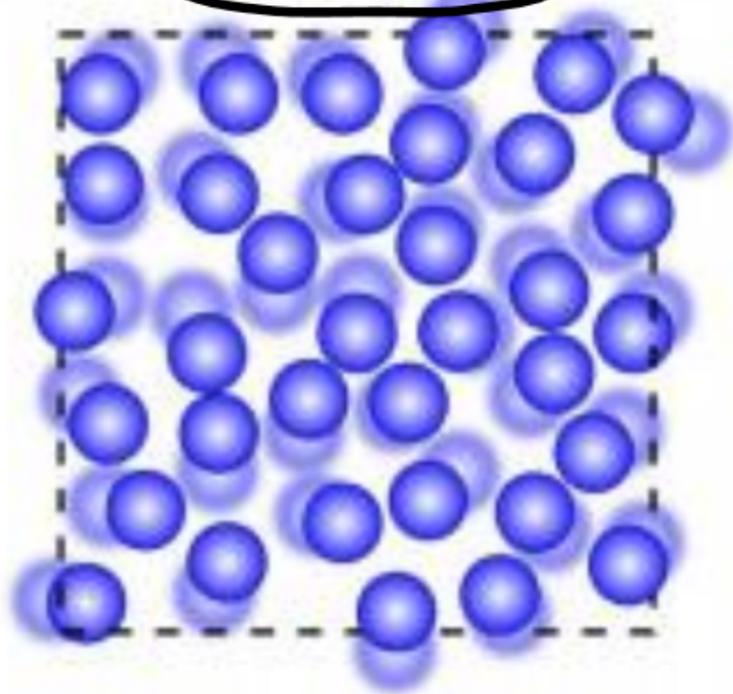
Properties of Matter

- Matter is made up of very small particles which are very hard to see through naked eyes.
- Particles of matters possess kinetic energy which means they are constantly moving they move faster with in increase in the temperature means kinetic energy increase with an increase in temperature.
- पदार्थ बहुत छोटे कणों से बना होता है जिन्हें नग्न आंखों से देखना बहुत कठिन होता है।
- पदार्थ के कणों में गतिज ऊर्जा होती है, जिसका अर्थ है कि वे लगातार गतिशील रहते हैं, वे तापमान में वृद्धि के साथ तेजी से आगे बढ़ते हैं, इसका अर्थ है कि तापमान में वृद्धि के साथ गतिज ऊर्जा में वृद्धि होती है।

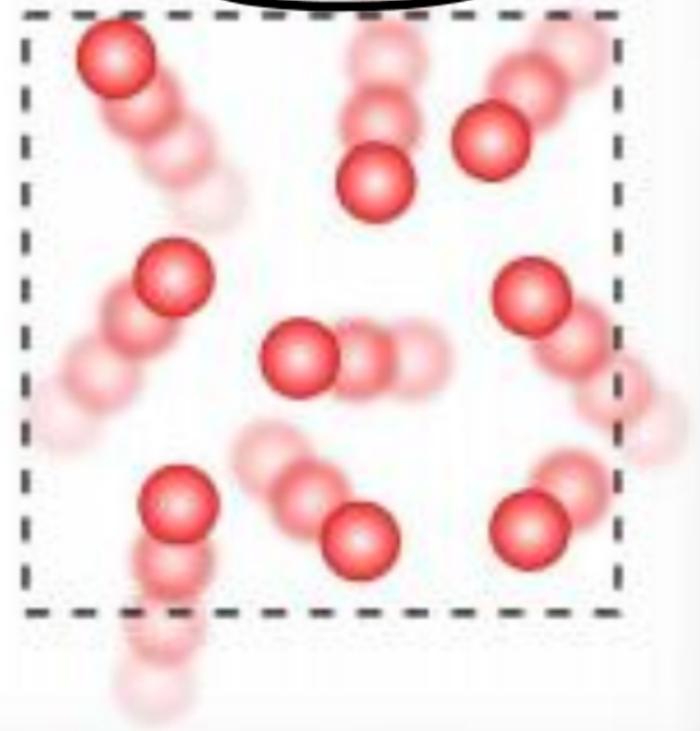
SOLID



LIQUID



GAS



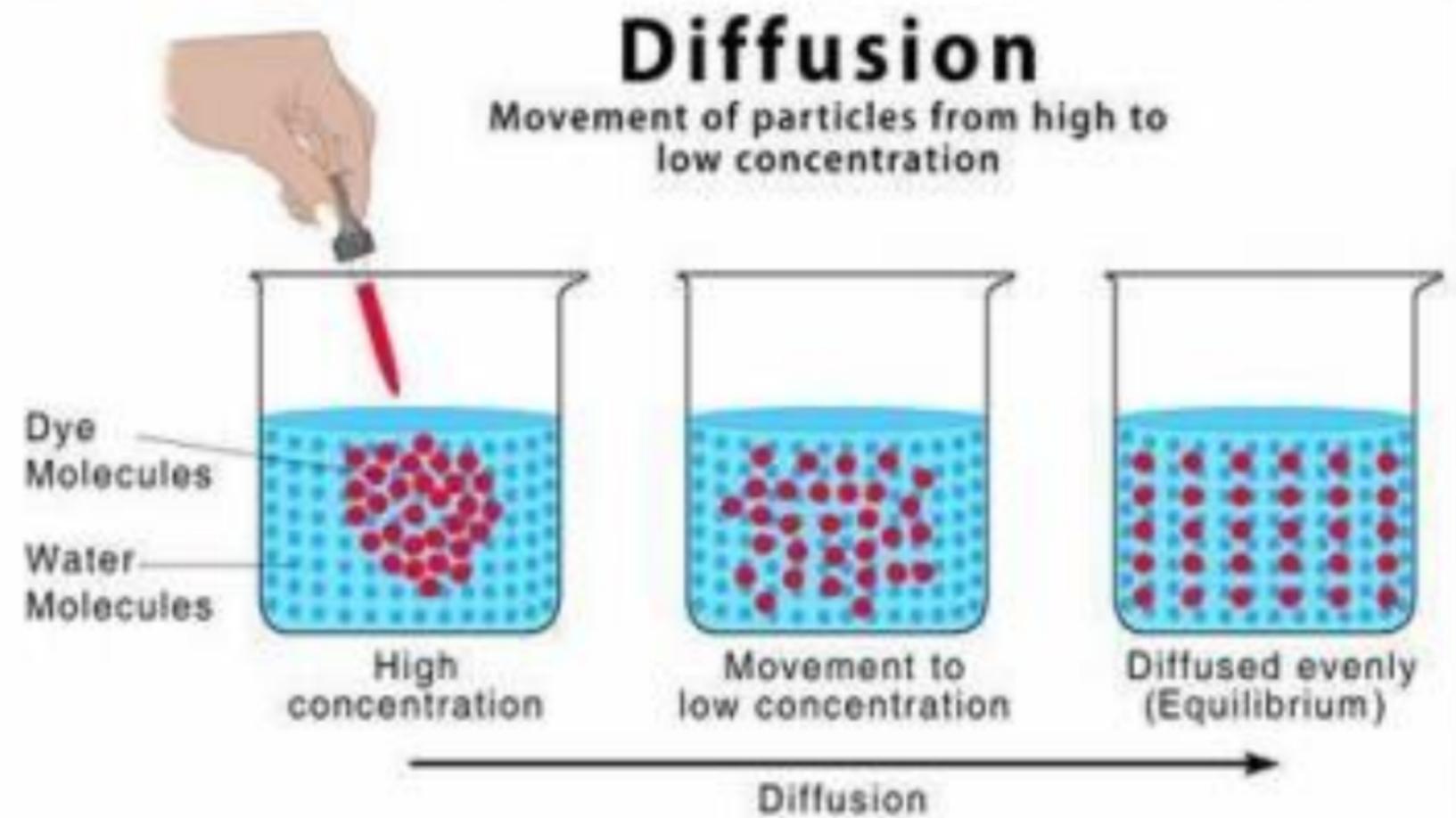
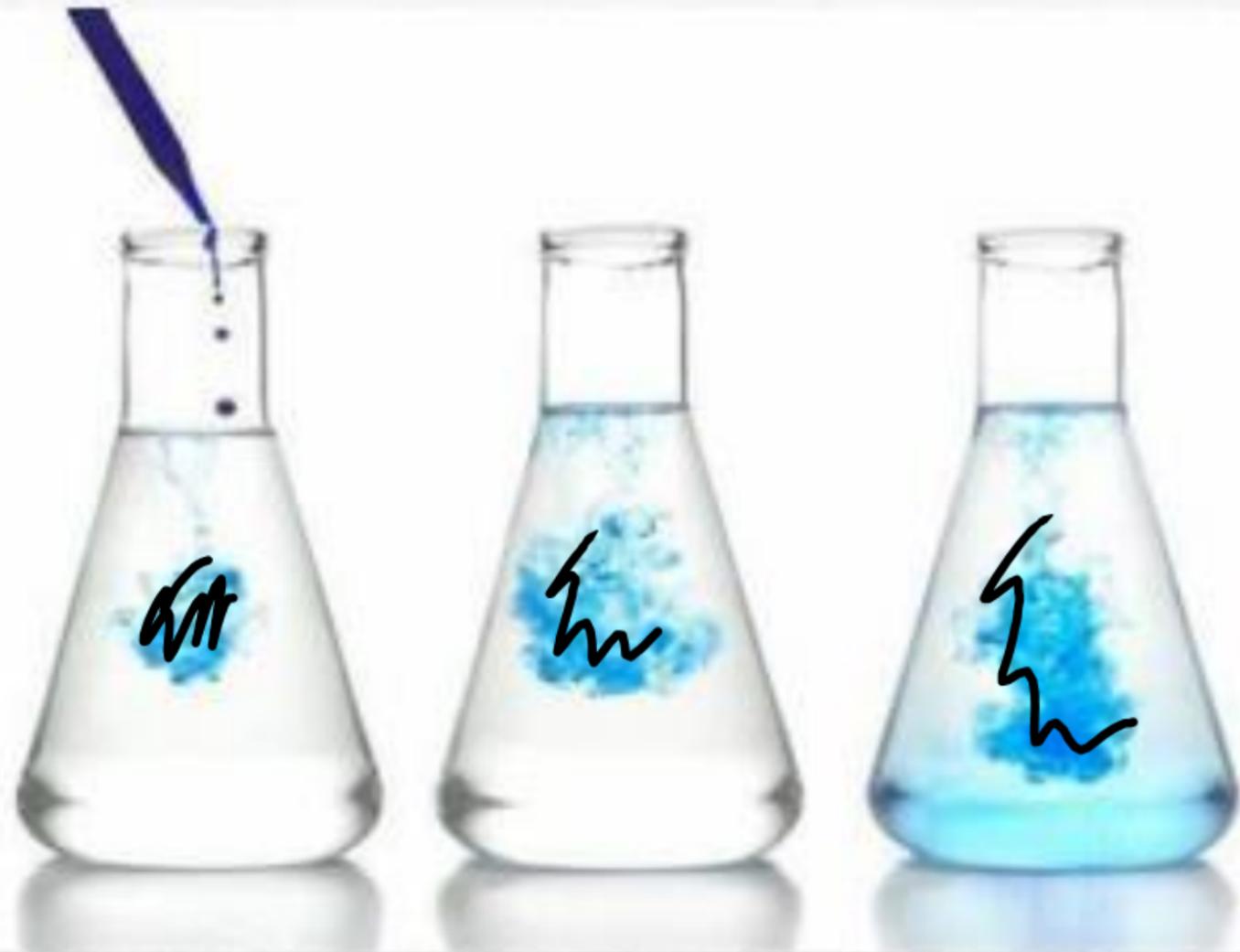
Diffusion

→ विसरण / आपस में मिश्रण

- Particles of matter intermix on their own with each other by getting into the spaces between the particles . this is called diffusion .
- Diffusion become faster on heating as it increase the speed of particles.
- There is a force of attraction acting between the particles that keep the particle together .
- The strength of the force of attraction varies from one kind of matter to another .

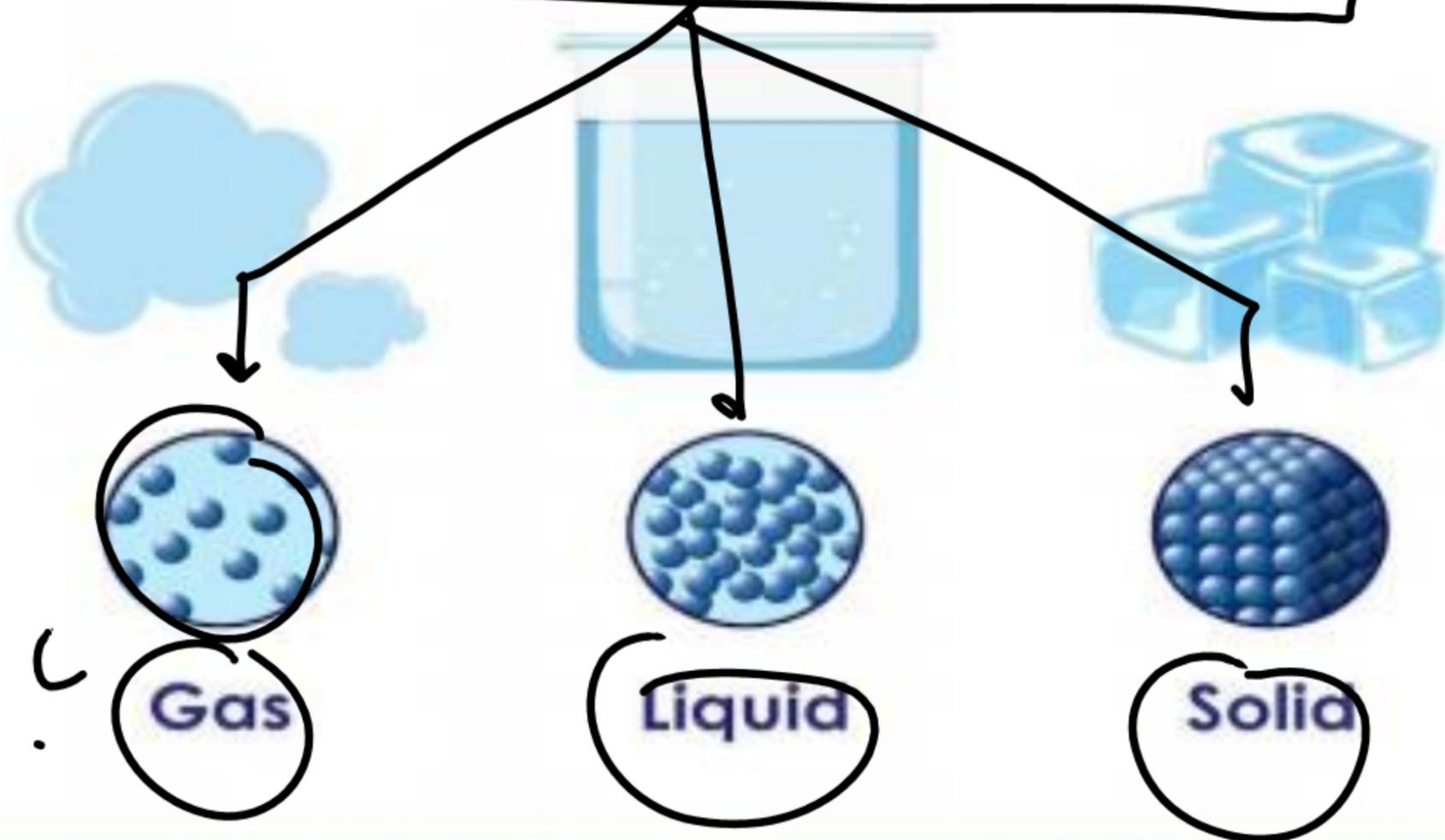
Not

Q

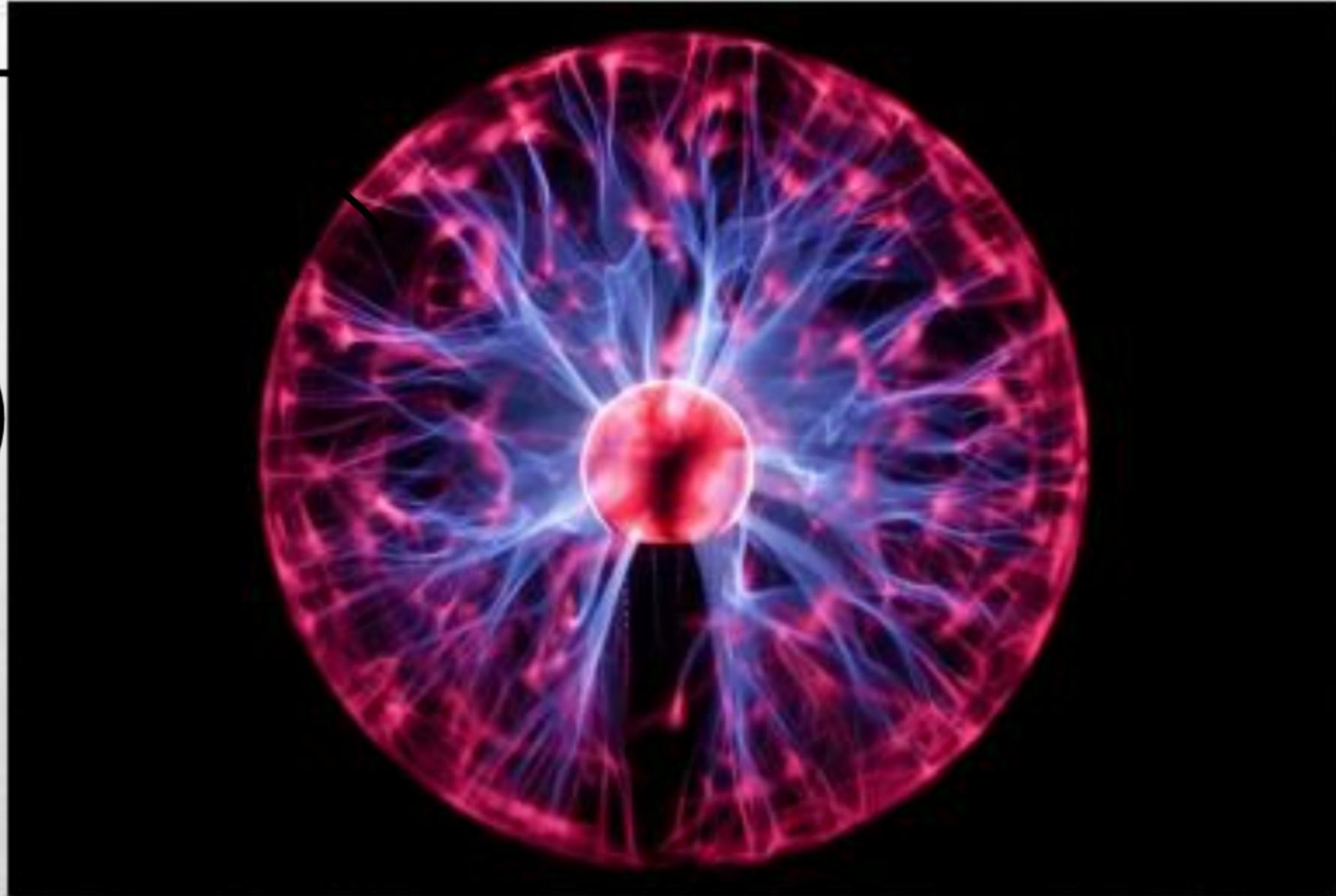


States of Matter

States of Matter



Plasma State

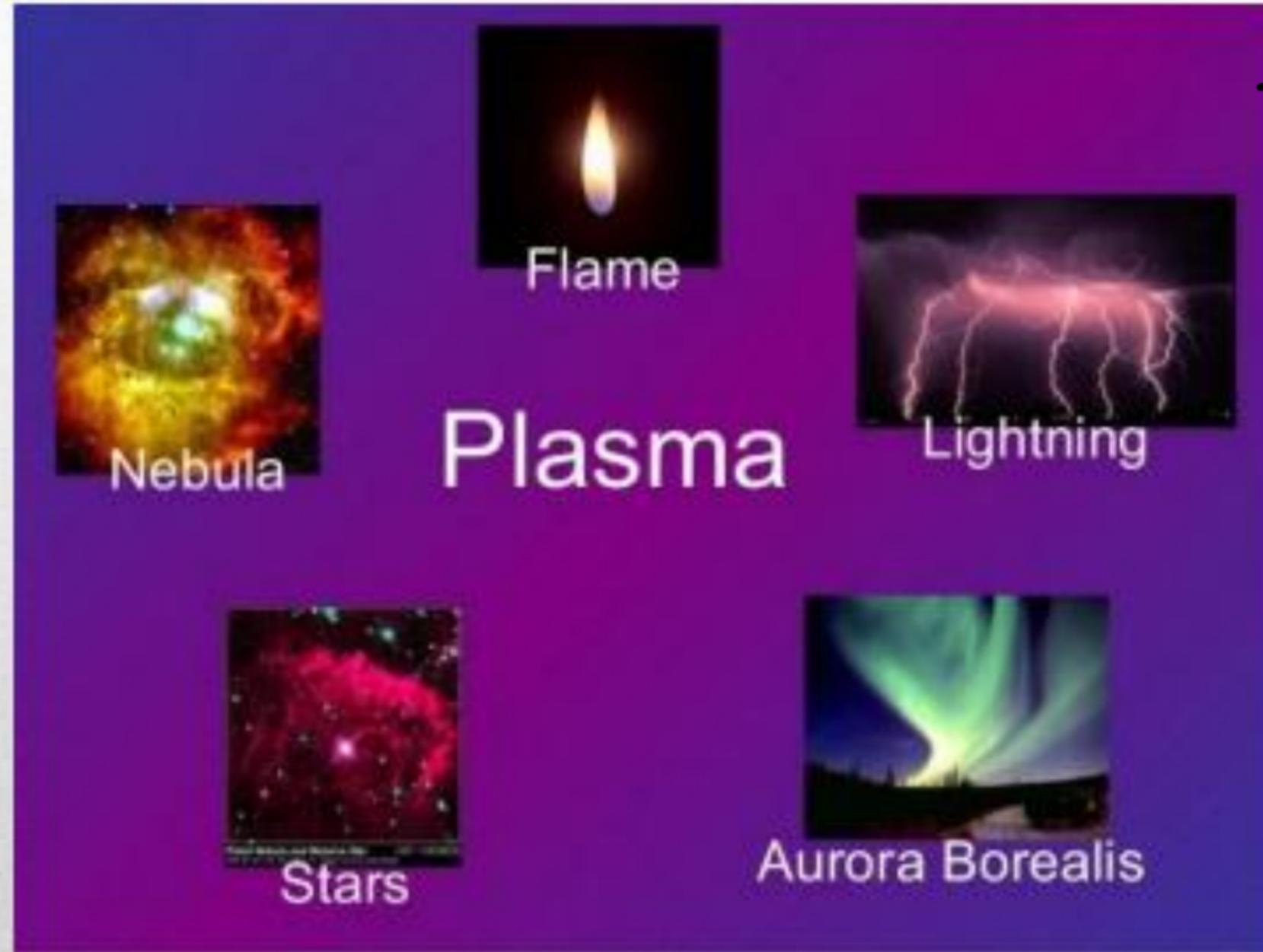


उच्च तापमान
आयनित कणिका

Note: पदार्थ 4th
अवस्था

↓
Plasma

अवस्था



विजली का चमकना

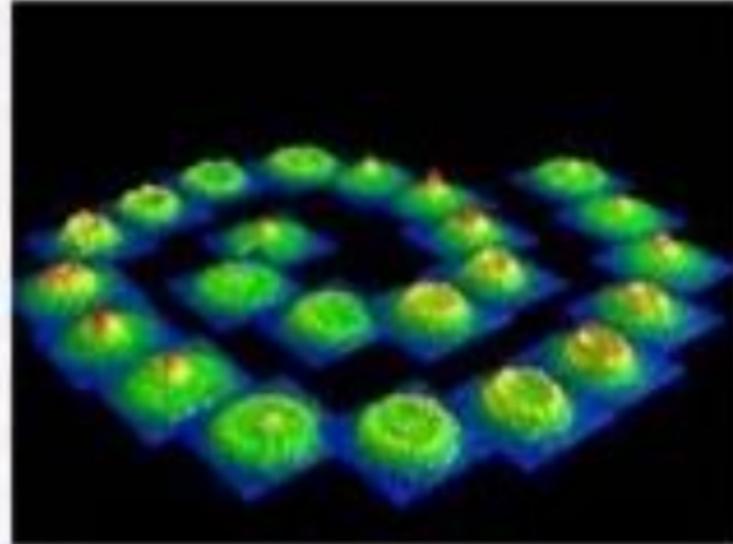
Lightning ✓

→ Pole → Aurora
अरोरा

→ Nebula

→ High Temp
(Star) ✓✓

What is a Bose-Einstein Condensate?



- This state of matter is a new edition to the crew.
- It all starts when the atoms start to get cold, really cold.
- When the atoms get cold, they get closer and begin to clump up.
- When the atoms clump up, they become one big blob that all look the same.

पदार्थ की पाँचवी

अवस्था



बोस-आइंस्टीन
कंडेंसेट

BEC