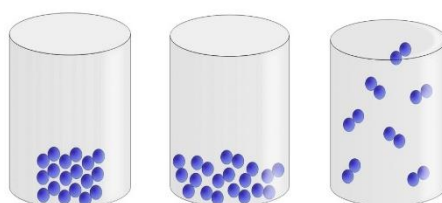


Unit 4: Matter and its characteristics

Use these words to fill in the blanks. Some words will be used more than once.

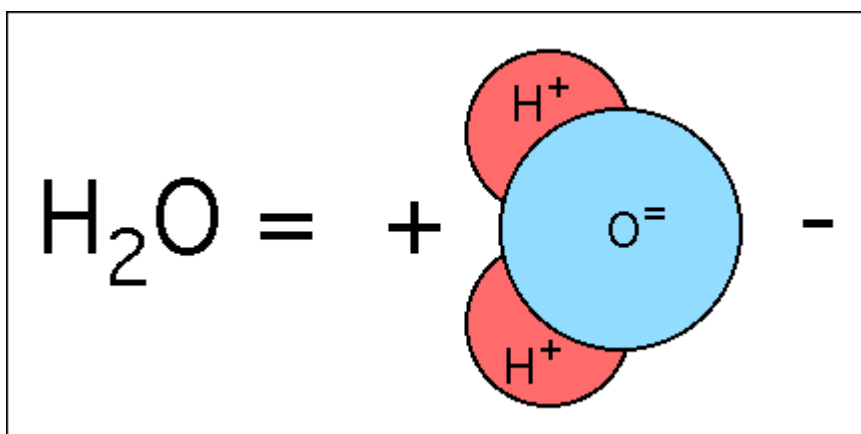
Particles	Matter	Mass	Space
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States of Matter



- i. Everything in this world that has mass and occupies space is matter.
- ii. Particles are always moving about.
- iii. Matter is found in three states or forms.

Now complete these three sentences using the same pair of words each time.



- Ice is made up of hydrogen, oxygen
- Water is made up of hydrogen, oxygen
- Water vapour is made up of hydrogen, oxygen

Concept check:

<u>Object</u>	<u>Mass</u>	<u>Volume</u>	<u>State of matter</u>	<u>Conducts heat</u>	<u>Conducts electricity</u>	<u>Floats on water</u>	<u>Sinks in water</u>
<u>Air</u>	Definite	Indefinite	Gas	Yes	No	No	Yes
<u>Water</u>	Definite	Definite	Liquid	Yes	Yes	No	No
<u>Plastic bag</u>	Definite	Definite	Solid	No	No	Yes	No

Exercise

Choose the correct Answer.

1. Which of the following metals is also needed in our diet?

- a) gold b) silver **c) iron** d) copper

2. Everything on earth is made up of tiny

- a) Particles** b) Parts c) Space d) Solids

3. Ice , water and water vapour are made of

- a) Water particles** b) Solids c) Gas d) Particle

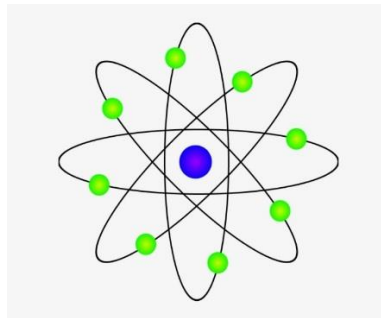
4. Which type of matter has a fixed shape and a fix volume?

- a) Solid** b) Gas c) Liquid d) Particle

5. When iron reacts with air and water , the substance formed on its surface is called

- a) Nickel b) Steel **c) Rust** d) Dust

Fill in the blanks:



- a) Matter is made up of atoms.
- b) The particles in a solid are packed very closely together.
- c) The particles in a liquid are packed loosely together .They can flow.
- d) In a gas the spaces between particles are bigger.
- e) Mass is the amount of matter in an object.

Match the definition in Column A with the correct term in Column

B.

Column A		Column B
Not easy to bend	●	Transparent
See- through	●	Waterproof
Does not absorb water	●	Magnetic
Attracts iron	●	Rigid

Mark these sentences with true and false:

- i. Particles move.
- ii. Particles in a gas are packed tightly together.
- iii. A liter of water is more when it is in a 5 liter container.
- iv. Particles in orange juice are packed less closely than those in orange ice lolly.
- v. Ice melts into a gas.

T
F
F
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[illegible]

4

Rearrange the jumbled words:









Jumbled words	Arranged words
Cusloleme	Molecules
Orsonctcud	Conductors
Uidiql	Liquid
Orstalsuin	Insulators
Llicatem	Metallic

Word search:

SILVER	VINEGAR	MOLECULES	COPPER	MATTER
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M	A	T	T	E	R	T	B	M	V
F	G	J	C	S	H	S	G	X	I
C	O	P	P	E	R	D	U	K	N
W	Q	U	P	B	M	K	L	F	E
S	I	L	V	E	R	L	W	Y	G
J	L	K	W	M	Q	P	G	X	A
K	L	F	O	P	E	W	X	O	R
M	O	L	E	C	U	L	E	S	Y

Drag and drop:

Towel	Tyre	Scissors	Glass
			
Ball	Copper wire	Balloon	Steel chain
			

Conductor

Scissors

Copper wire

Steel chain

Insulator

Towel

Tyre

Glass

Ball

Balloon

Comprehension:

Answer the following questions after reading the paragraph.

Matter is anything that has mass and takes up space. Matter can be described in terms of physical properties and chemical properties. Physical properties and chemical properties of matter can change. Matter is composed of elements and compounds.

In matter, the particles attract each other via intermolecular forces of attraction. The particles are continuously moving. The particles of matter have spaces between them. The matter is categorized into three categories: Solid, Liquid and Gas.

i. What is the composition of matter?

Matter is composed of elements and compounds.

ii. Write the three categories of matter.

Solid, Liquid and Gas.

iii. Give two characteristics of matter.

The particles are continuously moving.

The particles of matter have spaces between them.

Answer the following questions:

1. What is matter?

Everything in the world that has some mass and occupies space is called matter.

2. What is difference between a solid and a liquid?

Solid	Liquid
Solids have definite shape, mass and volume. For example, a brick , iron rod etc.	Liquids have definite mass and volume but they do not have a fixed shape. For example, water, milk oil etc.

3. Why it is not very good idea to use aerosol sprays?

These contain chemicals that could harm the environment when released into the atmosphere.

4. What are some of the properties of aluminium?

Aluminium is a silvery-white, soft, non-magnetic and easily shaped metal.

5. Do liquids have a fixed shape? Explain your answer.

Liquids have a definite mass and a definite volume but they do not have a fixed shape. They take the shape of container in which they are present.

6. Do the particles in a liquid stay in one place?

No, the particles in a liquid are not packed together so closely. The force of attraction between the particles is not so strong. The particles move about more freely.

7. Why is it not very good idea to dispose of oil down drains or into lakes and rivers?

Oils do not dissolve in water. They can block drains. They form a film on water and can harm wildlife and plants. Never pour oil down a drain.