

Chemistry

1.

1.

1. Physics

2.

2. ~~Dr~~ Dmitri Mendeleev

3.

a) Solids

4.

d) Evaporation

5.

B) Boiling point

6.

B) Alchemists

7.

a) A substance that is made up of one kind of atom and can't be reduced to simpler substances.

8.

a) ~~A tripod stand~~ Retort stand

9.

b) Gas Jar

10.

b) Bunsen Burner

11. Nitrogen

12. Chemical

13. high

14. ~~Bo~~ Freezing

15. Sublimation

16. Preservatives are added to food to make it long lasting and protect it from germs and bacteria that affect the food. With the help of preservatives the food will also not rot easily.

17. Alchemy was known as pseudoscience because

it was based on science and spiritual belief. It is mostly based on a spiritual goal called "the philosopher's stone". This was used to achieve a process to turn copper into gold.

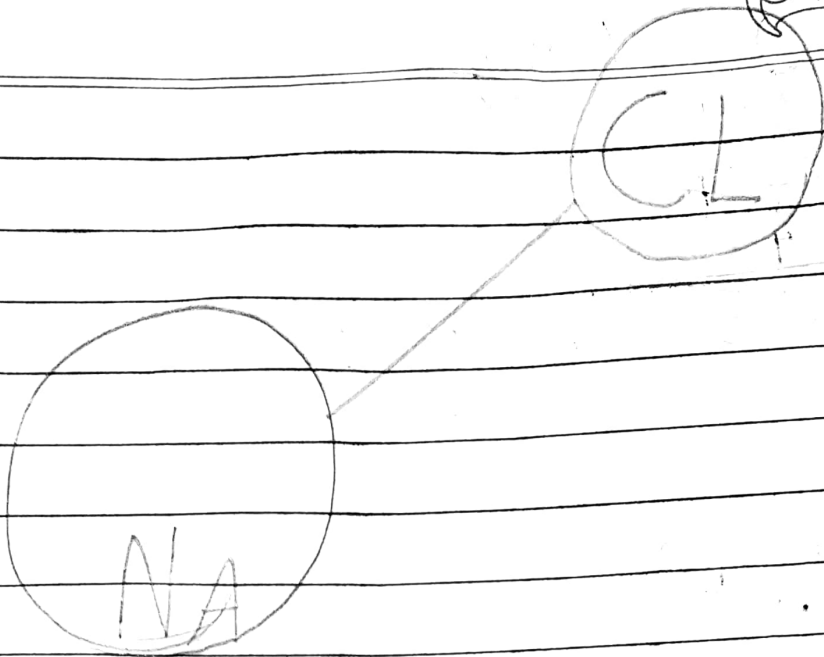
18. If water is kept on:

- (a) deep freezer then it freezes and turns into ice.
- (b) If water is heated then it turns into water vapour.

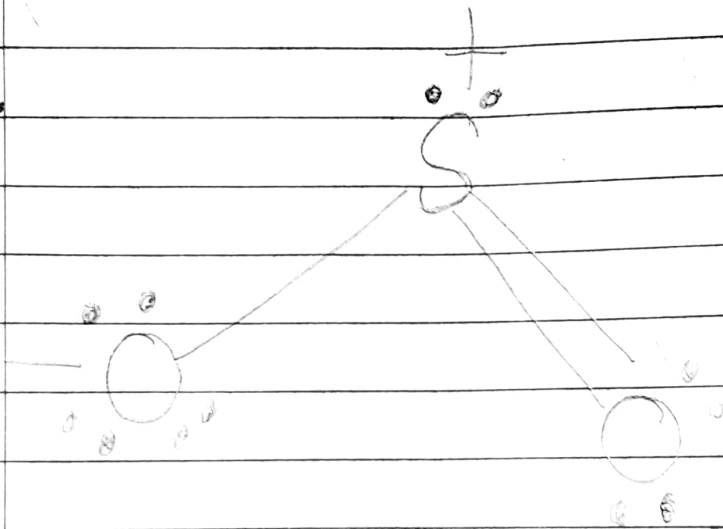
When the water is heated it becomes water vapour. This is called vaporisation. When it is ~~heat~~ cooled it becomes ice. This is called freezing. This is called the phenomenon of change of state of matter.

19. We clearly know that a compound is anything that contains two or more atoms of the different kind. Water is the most simplest form of compound. It consists of 2 hydrogen and 1 oxygen i.e. H_2O .

19.



20.



21. Food preservatives - Food preservatives are upgrades to the food lasting date. It is used to make the product germ free, long lasting etc.

Sodium Benzoate

Food processing - Food processing in the meaning is the product used to process and make it more refined form.

ex washing and chopping

(a) Dimitri Mendeleev - As we all know Dimitri Mendeleev is the person who invented the periodic table.

(b) Antoine Lavoisier - He is the person who discovered oxygen, carbon and silicon

(c) John Dalton - He is the person who proposed the atomic theory and Dalton's law etc.

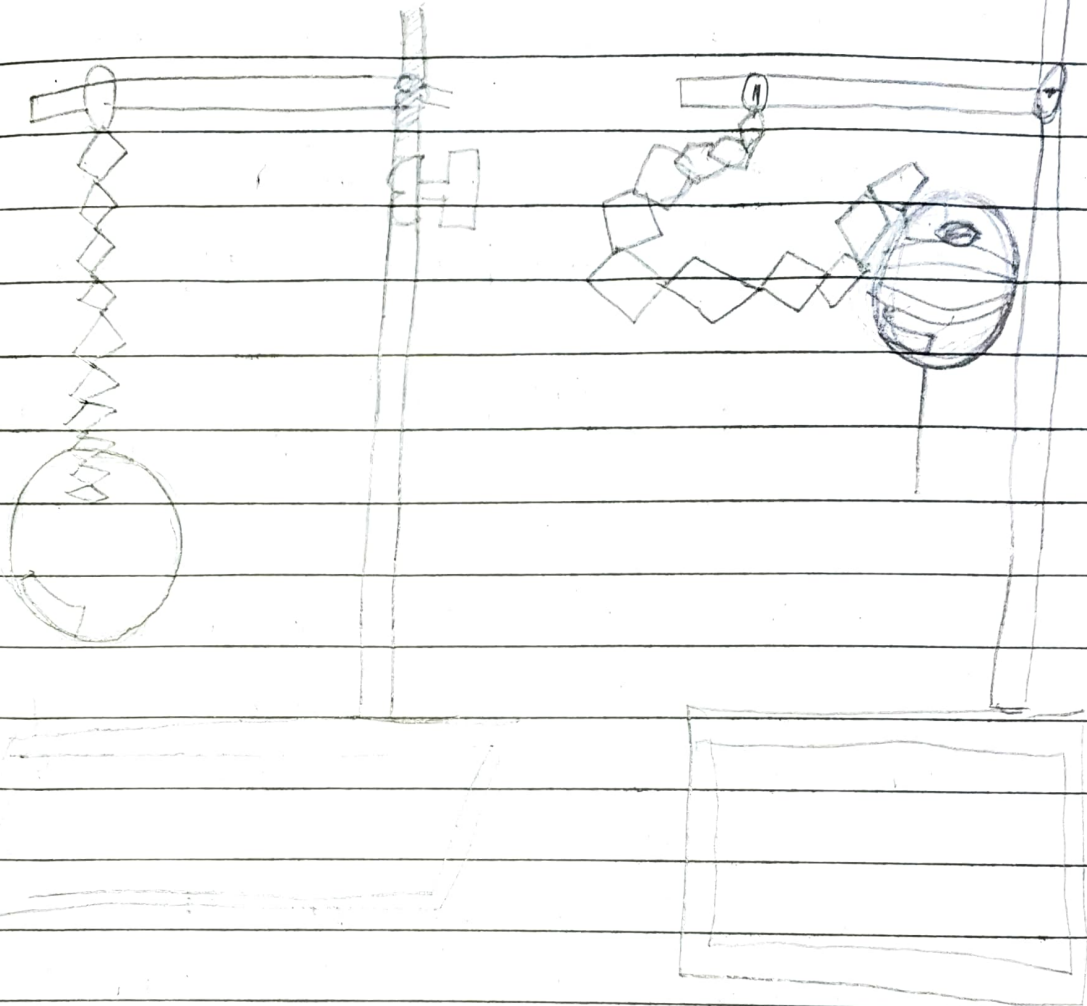
Compounds are atoms more than two and of different kind.

(a) H_2O

(b) CO_2

(c) NO_2

d) CaCO_3



All medicines should be taken on time the doctor's advice and in the correct dose. If it is not taken seriously then we might get the side effects and it will spread the disease we have got so it is recommended to follow these instructions.

25.

(a) Gold, platinum and silver are used for ~~jewellery~~ jewellery and coinage. In older days it could also be used to make seals.

(b) Copper ~~can~~ and aluminium can be used to ~~make~~ glass and foil and parts of aeroplane.

(c) plastic can be used to make bags, toys and etc.

26.

absorbs

(a) When the cotton ~~mixes~~ ^{absorbs} with the water molecule it becomes wet, then we keep the clothes outside and then the clothes becomes ~~not~~ hot and then it reaches 100°C temperature. When it reaches the temperature the water vaporizes and then water is carried away by air.

(b) The water evaporates in a dish evaporates faster as compared to water in a bottle because the dish water has more surface area compared to a bottle of water. So the dish water receives ~~more~~ more energy and air and the bottle of water receives less heat and

air. So the dish water evaporates faster than the bottle of water.

(c) The alcohol and spirit are kept in tightly stored bottle because the spirit and alcohol's evaporating property is instant. So the volatile liquids are kept on tightly stored bottle so that does not evaporate instantly.

27.

(a)

A philosopher's stone is not exactly a stone but it is a spiritual and imaginary thinking, "that they will achieve a method to turn copper into gold".

(b)

It indeed is because Food processing involves physical or chemical processes, to transform a raw ingredient into an edible or usable form of food available in market.

Cosmetics

(c)

~~preservatives~~ do contain preservatives as it is used to protect the cosmetics from harmful bacteria, mold. Parabens are one of the ingredients that are preservatives and are

used in cosmetics.

28. Sublimation means the change of matter of solids into gas directly. Naphthalene balls ~~balls~~ size decreases when left open because it is a volatile ingredient and it vanishes in air in a few minutes not leaving any ~~solid~~ parts of it. With a simple experiment we can define sublimation:

* When we keep ice cubes in front of the sun it changes into liquid and automatically changes into gas.

29. Elements	Compounds	Mixtures
Elements are molecules of the same atoms and of only one kind. It cannot be broken down into simpler substances.	Compounds are atoms of two or more atoms of the different kind. It can be broken down into simpler substances.	Mixtures are two or more different chemical substances which are not chemically combined. Mixtures can be broken down into simpler substances.

Elements	Compounds	Mixtures
It exists in nature	It also exists in nature.	Mixtures also exist in nature.
It is highly lustrous	It is not lustrous (Except Iodine)	They are also not lustrous

30.

- (a) Solids are rigid due to its intermolecular force. While gases have the least quantity of intermolecular force, so they are not rigid. Solids also have a definite shape but gases do not have.
- (b) Sugars can be distinguished from calcium powder using water as both have differential solubility in water.

(c) Water on ~~low~~ freezing turns into ice for its cooling nature. Due to freezing it happens. The cooling temperature of water is 0°C .