

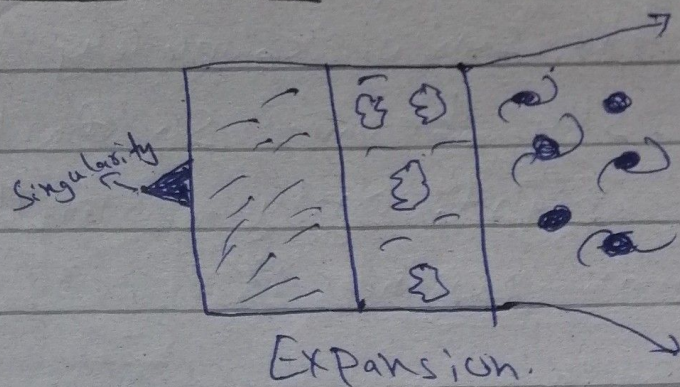
(a) Big Bang theory:- The idea of big bang theory gave by George Lemaitre in 1931.
According to Big bang the universe about 13.7 bn years old.

- 1) Singularity:- All the universe were confined in the matter.
- 2) Expansion & explosion:- Energy convert into matter according to Einstein equation $E = mc^2$.
So the matters & antimatters were formed & these matter & antimatter again converted into energy.

Evidence of bigbang:-

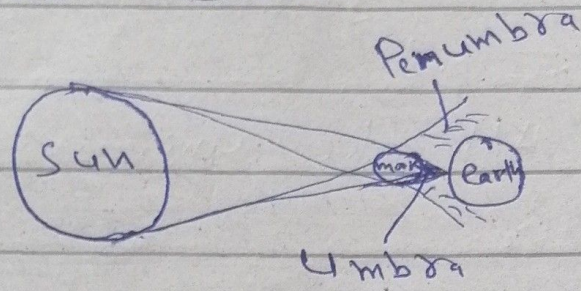
- 1) Red shift observed
 - 2) Cosmic background radiation.
- * Universe still expanding according to scientists

Formation:-



The clouds of hydrogen & helium turn into the celestial bodies like galaxies, stars, planets etc.

b) Solar Eclipse:- A sun is said to be in solar eclipse when the moon comes between the sun and earth.



Type of solar eclipse:-

- 1) Partial:- When the moon does not align completely with sun, so only a portion of the sunlight is blocked from reaching the Earth.
- 2) Annular:- When the moon covers the sun, but the sun can be seen around the edges of the moon, giving an impression that the sun is a bright ring surrounding the dark disc of the moon.
- 3) Total:- When the sun is completely covered by the moon. The sky becomes so dark that it appears to be night. Only a small area of Earth can witness it.

c) NPK fertilizers:-

1) Nitrogenous fertilizers:-

(a) Urea (b) Ammonium sulfate

(c) Calcium Ammonium Nitrate.

Importance:-

- Important for the early stage development of plants like roots, stem and leaf.
- Enhance photosynthesis process of the plants.
- Green color of plants seems due to nitrogen.

2) Phosphatic fertilizers:-

(a) Single super phosphate.

b) Triple Super phosphate (c) Diammonium phosphate

d) Monoammonium phosphate.

Importance of phosphate:-

- Important for the early growth of plants.
- provide resistance against diseases.

3) Potassic fertilizers:-

(a) Muriate of Potash.

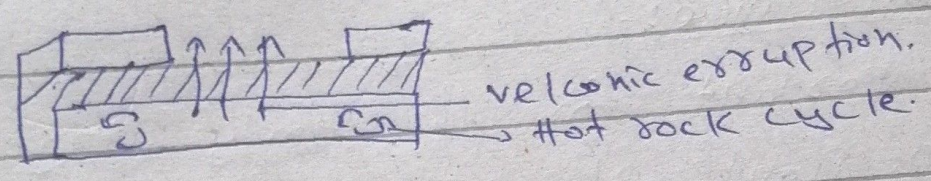
b) Sulphate of Potash.

Importance of Potassium:-

- Required for the storage of food in plant.
- Food store in the form of starch.
- provide resistance against of disease.

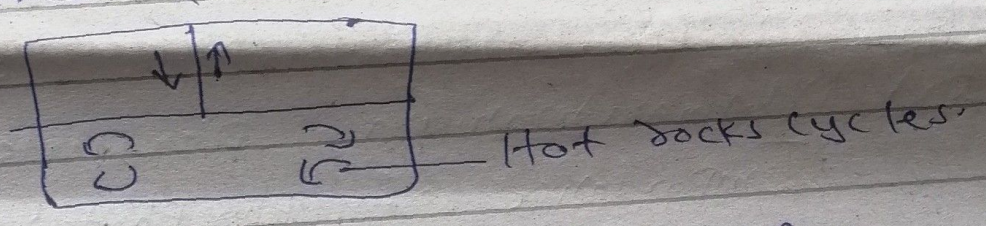
D) Tectonic plates boundaries

1) Divergent boundary:- When two plates away from each other, and there magma erupted towards earth and forms a ridge.



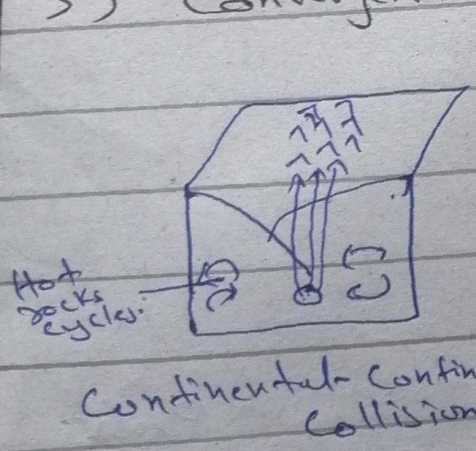
E.g:- The mid Atlantic ridge formed due to the divergent of Eurasian plate and North American plates.

2) Transform boundaries:- It between Pacific and North America plates.



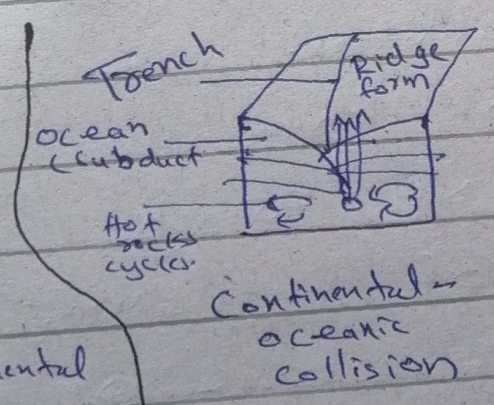
E.g:- Sanandria fault observed in California.

3) Convergent boundaries:-



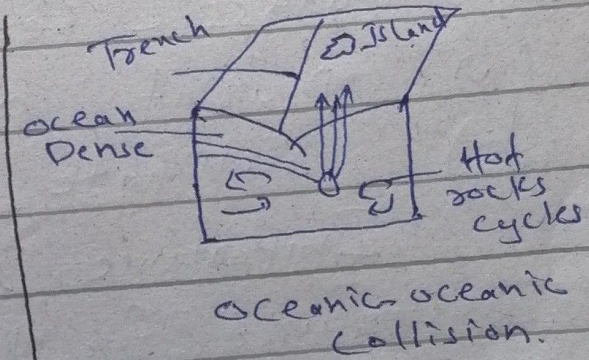
Continental-continental collision.

e.g:- The Himalaya mountain ranges form due to collision of Indian plate and Indian plate.



Continental-oceanic collision

e.g:- Andes mountain form and Peru trench form due to collision of Nazca plate and South America plate.



Oceanic-oceanic collision.

e.g:- Marian trench form due to collision of Pacific.