

Alight

Batch 042

Q Describe the different method method for determining the age of the universe?

There are different methods for determining the age of the universe.

**Cosmic Microwave background radiation.**

Arno penzies and Wilson detect these waves. These are the way waves which are left after the great explosion in the universe. The astronomist can determine the age of the universe by studying these waves.

**Age of the old stars:** By the studying the age of the old stars the astronomist can determine the age of the universe.

**Hubble Constant:** It is a measure at the rates of expansion of the universe. Nasa uses this measure Astronomist can determine the age of the universe by studying that rate

rate of expansion in the past and how the universe comes into its current rate of expansion.

**Age of old cluster:** By studying the age of the old stars of cluster astronomer can determine the age of the universe.

**supernova explosion:** It is the explosion of white dwarf stars. When the explosion occur it emits the light. ~~From~~ By studying the light during explosion the astronomer can determine the age of the universe.

**Chemical composition:** The chemical composition of the universe like  $H_2$ , He and Lithium may help the astronomer for studying the age of the universe.

**electromagnetic waves:** These waves are formed after the formation of black hole. By study. The astronomer can determine the age



of the universe with the help of these electromagnetic radiation.

Q

Differentiate between star and planet? How the color of is correlated with its temperature?

Star is the largest than planet there are a great differences between stars and the planets.

There are various <sup>characteristics</sup> things which differentiate star from planet

**Planet**

Planet is the part of a star

It revolves around star

It ~~creates~~ does not create its own light

It is not too much hotter.

It has not its own light

**star.**

Star is a part of galaxy.

It revolves around galaxy.

It creates its own light through nuclear reaction.

It is hotter.

It emits its own light

## Planet

## Star

It is composed from solid liquid and gas

It is not big

It founds in spherical shape

It changes its position continuously

It is composed from  $H_2$  He

It is big in size

It founds in dot shape

It changes its position but after a long time

The temperature of the star correlated with color. Blue star is hotter than white star. Star Sirius is blue in color but its temperature is 25,200k. Betelgeous is red in color its temperature is about 2500 k.

Group	Color	temperature
B-	(blue color)	30000 k
B	(white and blue)	25000 - 10000 k
A	White	10,000 - 7500 k
F	Yellow and white	75000 - 6000 k

Group	temperature	Color
G	6000 - 55000°	Yellow sun
K	5000 - 2500g	Orange
M	25000	Red Betelgeuse