

Class- 05
Subject- Science
Chapter – 8
The universe
Lecture – 01
Class-13/06/2020



THE UNIVERSE

Telescope:

A telescope makes far away objects seem larger. It helps us see farther into space. Scientist uses telescope to research on planets, stars and galaxy.



TELESCOPE

Planet:

Planet is a large natural body that revolves in an orbit around the sun.



PLANETS

Star:

A very large ball of burning gas in space that is usually seen from the earth as a point of light in the sky at night.

Galaxy:

A galaxy is a group of many stars with gas, dust and dark matter. The name of our galaxy is Milky Way.



1. The universe and the earth

A. Size of universe:

Q1: How big is the universe?

Ans: It is very difficult to say how big the universe is. Because the universe is expanding all of the time. The universe is so big that even light hasn't had time to cross it in nearly 14 billion years.

Q2: How fast can light travel?

Ans: Light can travel at approximately 3,00,000 km a second.

Q3: How long light takes to travel from the moon to the earth?

Ans: The distance from the moon to the earth is 3,84,400 km. So, light takes about 1.3 second to travel from the moon to the earth.

Q4: How long light takes to travel from the sun to the earth?

Ans: A distance from the sun to the earth is 15,00,00,000 km. Light takes about 8 minutes to travel from the sun to the earth. This means that we always see the sunlight that is emitted from the sun about 8 minutes ago.

Q5: What is the milky way?

Ans: Milky way is one of the galaxies in the universe.

Q6: If we able to travel as fast as light how many years it would take to cross the milky way?

Ans: If we were able to travel as fast as light it would take 1,30,000 years to go across the milky way galaxy.

Q7: How many stars a galaxy has?

Ans: According to the Sir Eddington a galaxy has approximately ten thousand crores of stars.

Q8: What is astronomy?

Ans: Astronomy is the study of the universe such as stars, planets and space.

Q9: Why do scientist use telescope?

Ans: Scientist use telescope to research on planets, stars and galaxy.

Q10: Which device will you to observe the stars in the sky?

Ans: Scientist use different technologiest such as telescope to study the universe. They also building a space station to study the universe.

Q11: Who invented telescope and why?

Ans: Galileo invented and improved telescope that allowed him to see far into space. Using the telescope, he proved that the planets actually revolved around the sun. Scientists are now using space telescopes and are building a space station to study the universe.