PAGE No.
DATE

Chapter - 14

The Heavenly Bodies

New words

1) heavenly body
2) satellite
3) space probe
4) asteroids
5) comets
6) dwarf
7) observatories
8) telescope
9) hubble space
10) revolution

Define the following -

1) Star - A huge hot glowing ball of fire which has its own heat and light is known as star. Example: Sun

2) Planet - A heavenly body that revolves around a star is called planet. Example - Earth.

3) Satellite - A heavenly body that revolves around a planet. Example: Moon

4) Space probe - A man-made machine put into space to get information about the space is called space probe.

PAGE No.
DATE

QC Give the difference between —

1) A star and a planet

A Star	A Planet
1. A star is a huge hot glowing ball of fire.	1. A planet is a heavenly body that revolves around a star.
2. It has its own heat and light.	2. It has no heat and light of its own.
3. Example: Sun	3. Example: Mars, Earth etc.

2. A planet and a satellite

A planet	A satellite
1. A planet is a heavenly body that revolves around a star.	1. A heavenly body that revolves around a planet.
2. There are only 8 planets in number.	2. There are numbers of satellites.
3. Example - Mars, Earth etc.	3. Example: Moon etc.

PAGE No.
DATE

3. An asteroid and a comet

An asteroid	A comet
Aesteroids are very small, irregular - shaped rocky bodies which orbit the Sun.	A comet looks like a star with a tail in the night sky

4. Revolution and rotation

Rotation	Revolution
Rotation is the spinning of an object on its own axis	Revolution is the movement of an object around another object in fixed orbit.
Example: Earth rotates on its own axis	Example: Earth revolves around the sun.

Q.D Answer the following Questions-

1) What are heavenly bodies?

Ans- Objects which belong to the sky are called heavenly bodies.

Example - The Sun, the moon etc.

2) Why do the planets of the solar system not collide with each other?

Ans- The planets do not collide with each other because they move in their orbits around the sun without crossing each other.

3) Why does Pluto take the longest time to complete one revolution? Which planet takes the shortest time to complete one revolution?

Ans- Pluto is the farthest planet from the sun. It has the largest orbit. It travels at a lower speed and has to cover a longer distance. So, Pluto takes the longest time to complete one revolution.

Mercury planet takes the shortest time to complete one revolution.

4) What are comets?

Ans- Comets are heavenly bodies made of ice and dust. When they come near the sun, the ice melts and the gas which is trapped inside is released. Thus a tail is formed.

PAGE No.
DATE

Q5. How do astronomers study the heavenly bodies?

Ans- 1) Astronomers use different kinds of telescopes to study the heavenly bodies.

2) Now a days, astronomers use space probes to study the heavenly bodies.

Q6. Name three types of telescopes used by astronomers. Where are they placed?

Ans- Three types of telescopes used by astronomers are -

1) mirror telescope
2) radio telescope
3) optical telescope

They are placed in observatories which are special buildings built to study the sky.

Example : Hubble space Telescope

PAGE No.
DATE

Q7. Some planets receive more heat from the sun. Why?

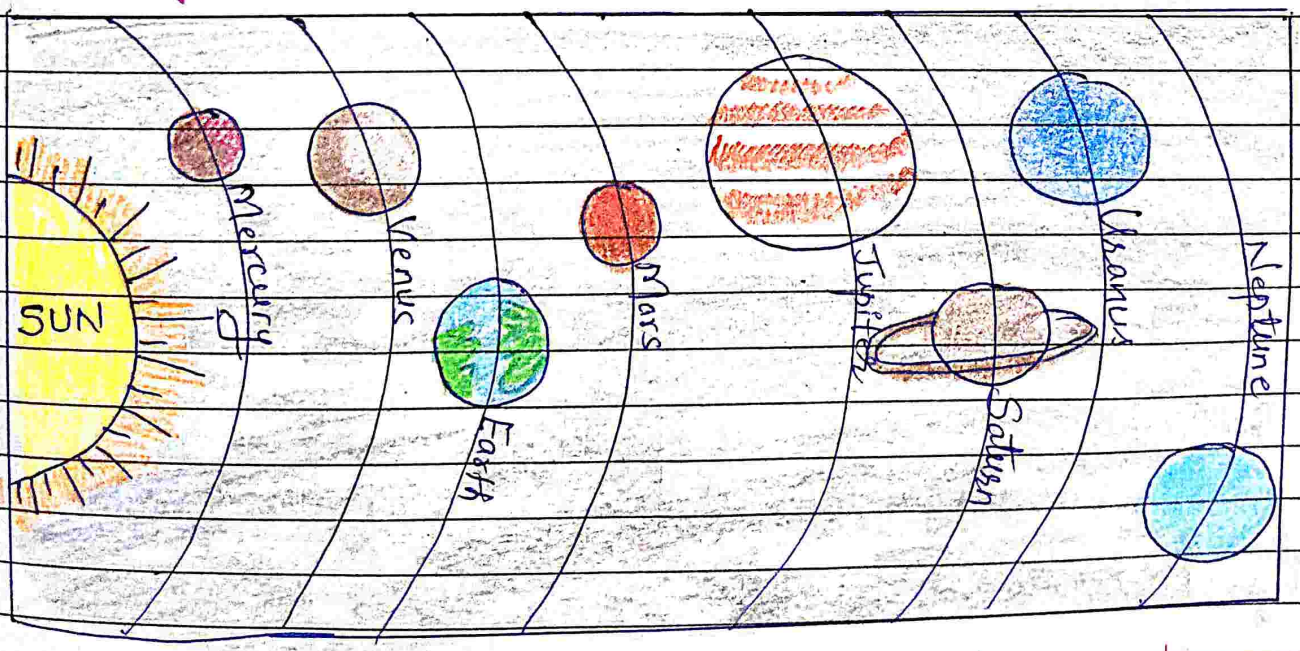
Ans- Some planets receive more heat from the sun because they are closer to it.

Q8. What are space probes? Which is the latest space probe?

Ans- Space probes are man-made machine put into space to get information about the space.

IMAP (Interseller Mapping and Acceleration Probe) launched on 24 September, 2025.

QE Draw and colour the solar system in your notebook.



Solar System

PAGE No.

DATE

Mind Map

Heavenly bodies

- Star (huge hot glowing ball of fire)
- Planets (revolve around stars)
- Asteroids (orbit the sun)
- Comets (looks like a star with a tail)
- Satellites (revolve around planets)

Work Time

A. Match the following:

COLUMN A	Ans	COLUMN B
1. Star	1. f	a. Moving heavenly body with no light of its own
2. Rotation	2. d	b. The Sun and its family of eight planets
3. Revolution	3. e	c. An imaginary line passing through the centre of a planet
4. Planet	4. a.	d. Spinning of a planet on its own axis
5. Solar system	5. b	e. Movement of a planet around a star
6. Axis	6. c	f. A heavenly body having its own heat and light

B. Name the following:

1. Our nearest star — Sun
2. A giant star — Betelgeuse
3. The slowest planet to revolve around the Sun — Neptune
4. The largest planet — Jupiter
5. Our nearest planet — ~~Mercury~~ Mars
6. The Red Planet — Mars
7. The Evening Star — Venus
8. The telescope placed in space — Hubble Space telescope
9. The space probe which visited Jupiter — Juno (2016- present)
10. The most famous comet — Halley's Comet