

Chapter- 1

THE EARTH IN THE UNIVERSE

STUDY NOTES

The universe: -

- The sky is a part of an endless space called the universe.
- The universe consists of gases, dust, heavenly objects like stars and planets.
- Our Earth is like a tiny grain of sand in this vast universe.

Star, Galaxies, constellations: -

- Bright twinkling objects you see in the sky at night are stars.
- **Stars** - are huge ball of hot, burning gas.
- They give out heat and light.

Galaxy -

- A very large group of stars is called galaxy.
- There several million galaxies in this universe.
- We live in a galaxy called Milky Way.

Constellation- when seen from the Earth some of stars appear to form beautiful patterns in the sky called constellation.

ODM EDUCATIONAL GROUP

The solar system: -

Changing your Tomorrow

Sun:

- It is a star closest to the Earth.
- It is also a large ball of extremely hot gas.
- It is very important for all living things as it gives light and heat.
- Earth moves around the sun.
- The sun and other heavenly bodies together form the solar system.

The Planets: -

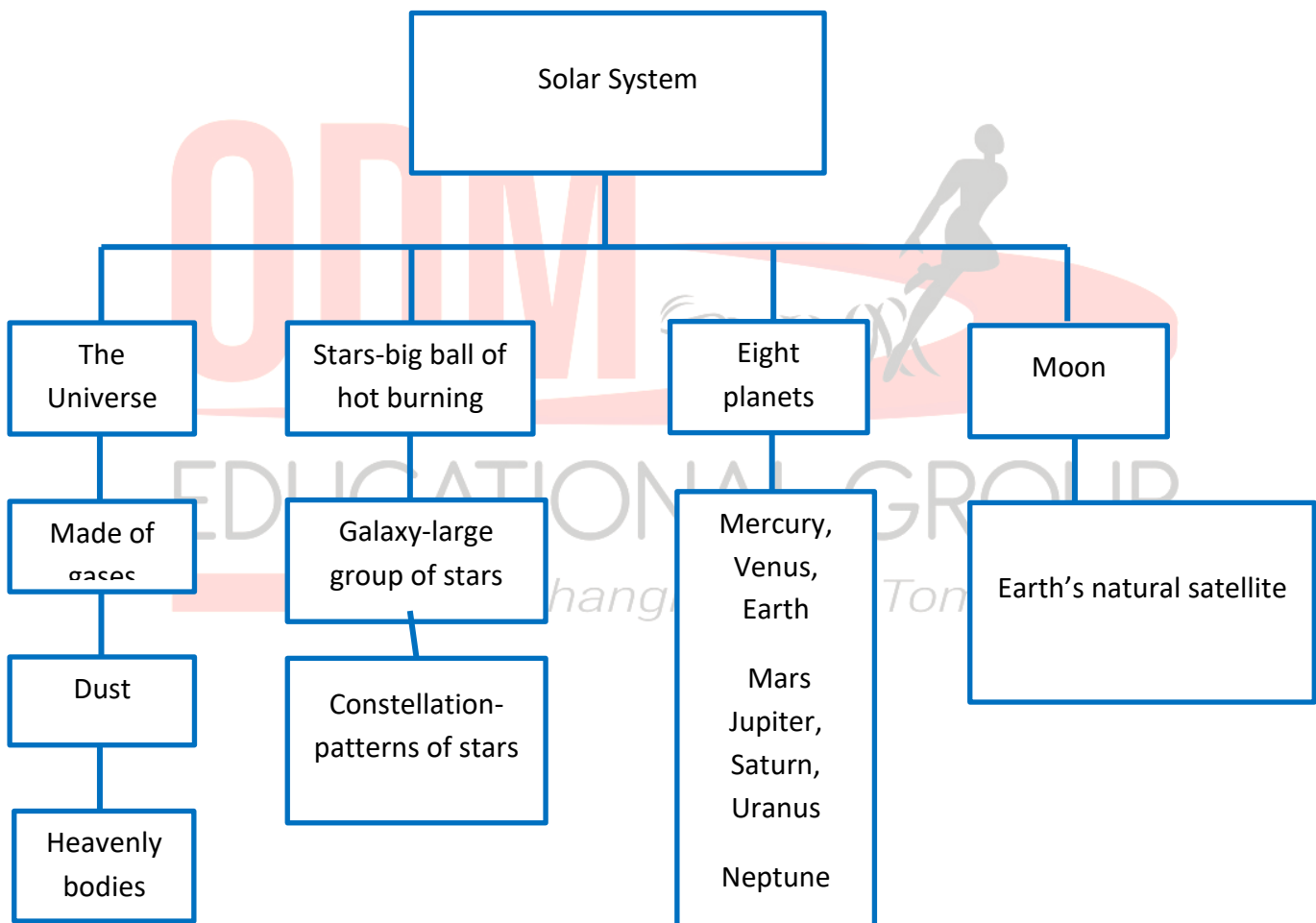
- Planets are round bodies that travel around star.
- They are made of rocks or gases.
- They do not have their own heat and light.
- They get heat and light from the stars they move around.
- There are eight planets in our solar system.
- They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

- Mercury is the closest and Neptune is the farthest from Sun

The Moon: -

- The moon is the Earth natural satellite.
- A satellite is a body that moves around a planet.
- Moon is made of rock.
- It has no light of its own but it shines because of the light of the Sun.
- It is the nearest neighbor in the universe.
- Moon has many big and small holes called craters.

MEMORY MAP



Let's Know More

Q1 Fill in the blanks.

- (a) _____ planet is also called the 'morning and evening star'.
- (b) _____ are round bodies that travel around a star.
- (c) _____ was the first Indian to travel in space, in 1984.
- (d) In the beginning, there was a huge explosion in space, which scientist call as a _____.
- (e) The _____ looks like a big ball of fire.

Let's Do**A. Fill in the blanks.**

1. The universe is a vast expanse of _____.
2. The _____ is our nearest neighbour in space.
3. The Earth gets its heat and light from the _____.
4. _____ do not have heat or light of their own.
5. The sun and the planets together form the _____.

B. Circle the odd one out.

1. Mercury Mars Jupiter Pluto
2. Uranus Leo Orion The great bear
3. Water Atmosphere Earth Venus

C. Answer the following Questions.

1. Describe the universe?
2. What are stars?
3. What are constellations? Name a few well known constellations.
4. What is the Solar System? Name the different planets of the Solar System.
5. What are planets?

D. Multiple choice questions

1. The universe is a vast expanse of
a. Space b. light c. water
2. The twinkling lights in the dark sky are called
a. Stars b. bulbs c. planets
3. The sun is a
a. Planet b. moon c. star
4. The number of planets in solar system is
a. Ten b. eight c. nine
5. The only known planet with life on it is
a. Earth b. Venus c. Mars

Teacher's Note

- . Draw a diagram of the Solar System and label it neatly in Project Record

Improve Your GK

- We send astronauts, satellites and space shuttles into outer space to study the universe.

- Indian astronomers like Aryabhata, Brahmagupta, Bhaskar I, and Varahamihira studied the universe.

Answer Key: -

A.

1. Space
2. Moon
3. Sun
4. Planets
5. Solar system

B.

1. Pluto
2. Uranus
3. Venus

- C.
1. The universe is a vast expanse of space, containing various heavenly bodies like stars, planets and moons.
 2. Stars are huge balls of very hot, glowing gases.
 3. Constellations are group of stars that appear to make a pattern in the night sky. Some of them are Leo, The great bear, Orion etc.
 4. The sun and its eight planets together form the solar system. The planets are Mercury, venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.
 5. Planets are heavenly bodies that travel around a star.

D.

1. Space
2. stars
3. Star
4. Eight
5. Earth