# Social Studies


## Smart Class

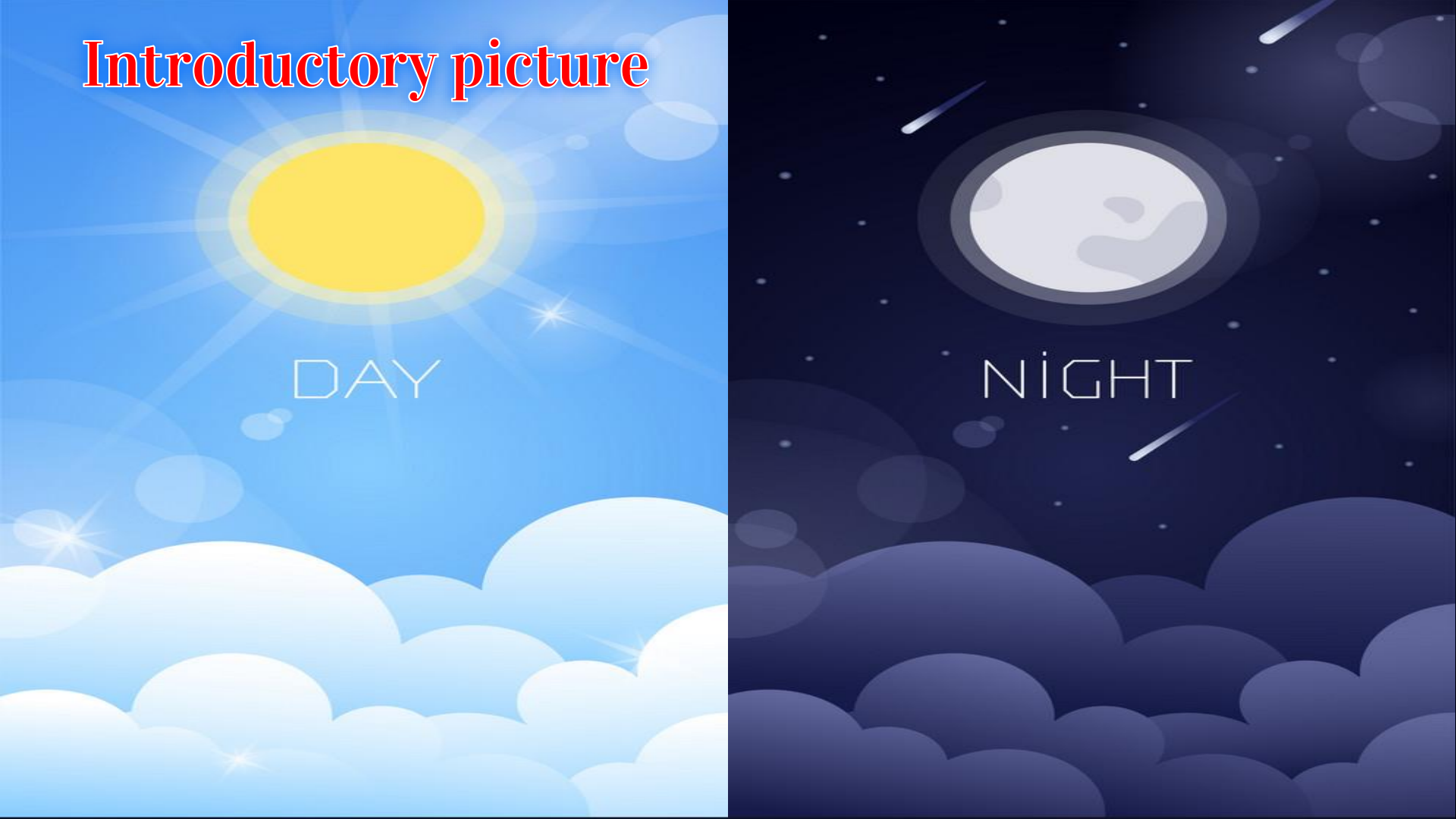
# SOCIAL STUDIES

## Class VI

1

# Our Earth in the Solar System

# Introductory picture

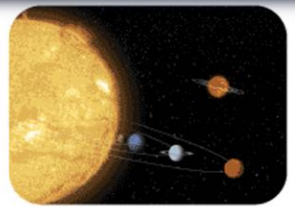


# Celestial Bodies

- Sun
- Planets
- Satellites
- Asteroids
- Meteoroids
- Comets


# Celestial Bodies

(1) Stars



(2) Planets

(3) Satellites

(4) Comets

(5) Asteroids

(6) Meteors and meteorites

(7) Galaxies

# Celestial Bodies

- **The objects like the Sun, the Moon and other bodies like the Earth are called the celestial bodies.**
- **They are also called heavenly bodies.**
- **They are astronomical objects.**

## Let's Do

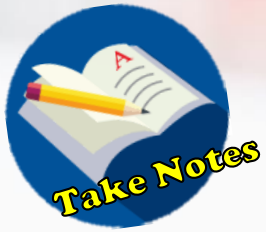
**To know how day and nights occur**

**Let us observe celestial bodies:**

**Required material:** Torch, sheet of plain paper, pencil and a needle.

Process...

1. Place the torch in the centre of the paper with its glass front touching the paper.
2. Now draw a circle around the torch.
3. Perforate the paper with the needle within the circled area.
4. Now place the perforated circle part of the paper on the glass front and wrap the paper around the torch with a rubber band.
5. In a dark room, stand at some distance facing a plain wall. Switch off all other lights. Now flash the torch light on the wall. You will see numerous dots of light on the wall, which look like stars at night.
6. Switch on all the lights in the room. All dots of light will be almost invisible.
7. You may now compare the situation with what happens to the bright objects of the night sky after the Sun rises in the morning.



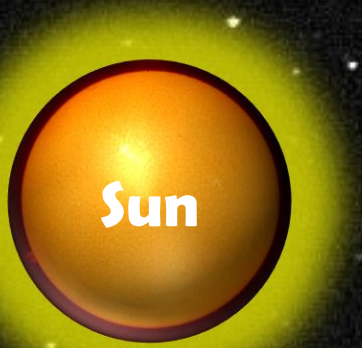

## Q1. Define celestial bodies? Give examples.

i. Astronomical objects like stars (Sun), planets, satellites, asteroids, meteoroids and comets are called celestial bodies.

ii. They are also called heavenly bodies.

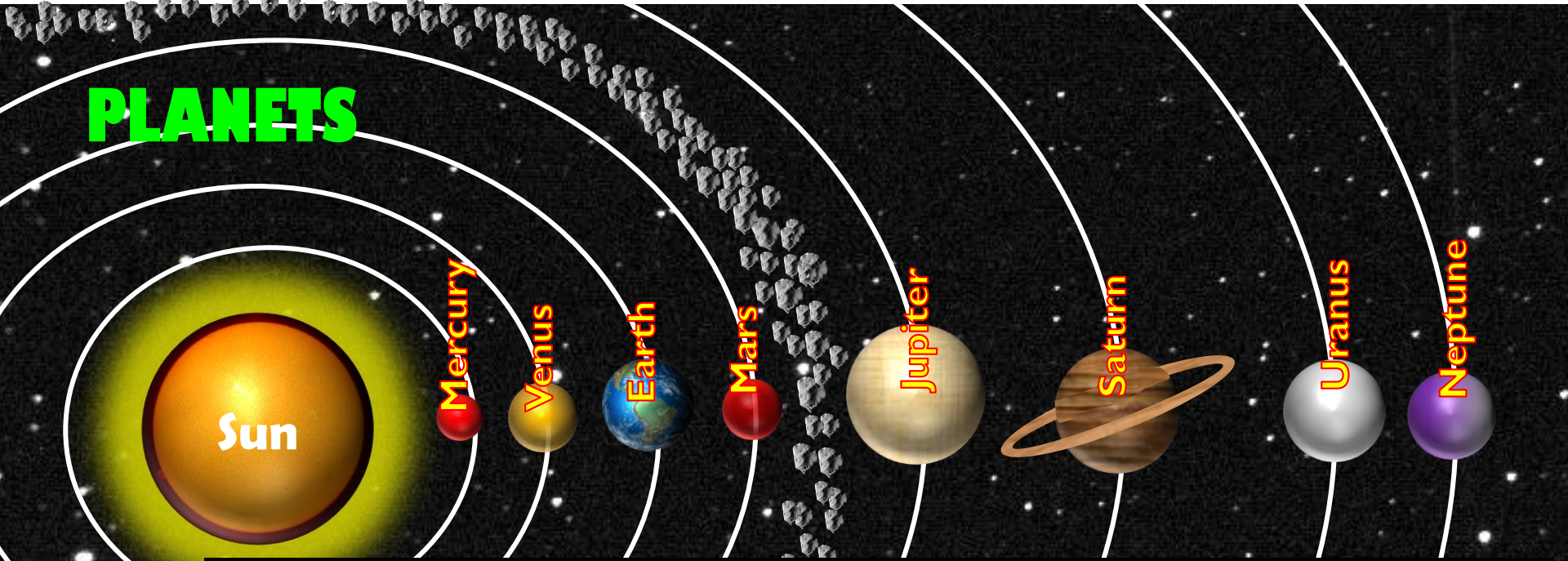
iii. Example : The Sun, The Earth etc.

# STARS

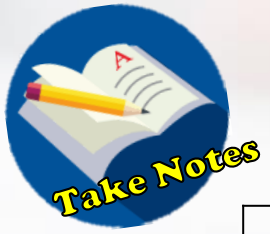



- ✓ Stars are luminous celestial bodies. That means these celestial bodies produce heat and light.
- ✓ The Sun is the nearest star to our Earth.

# PLANETS




- ✓ Planets are non-luminous celestial bodies.
- ✓ These are move around the sun in specific paths.
- ✓ These specific paths are called Orbits.

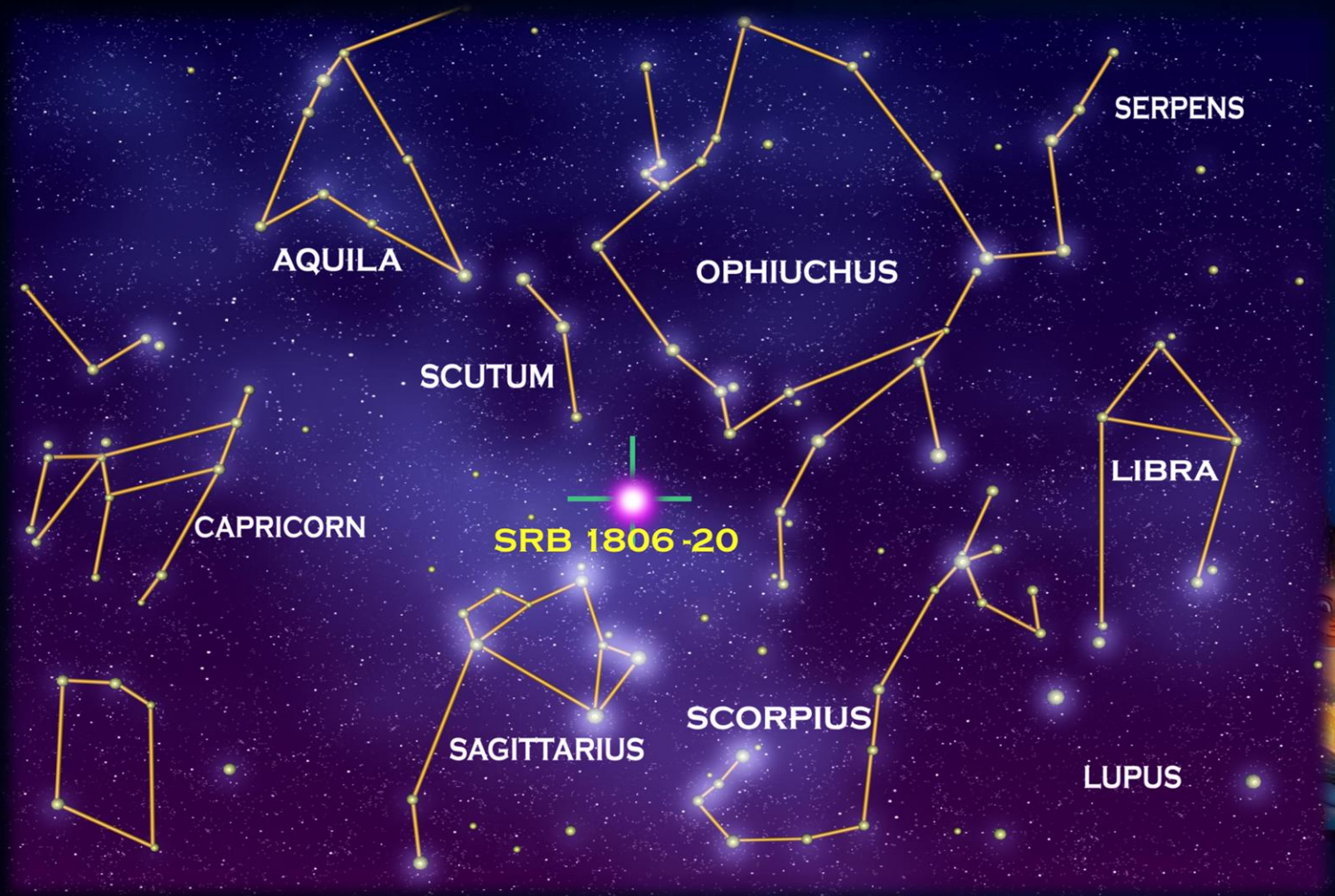


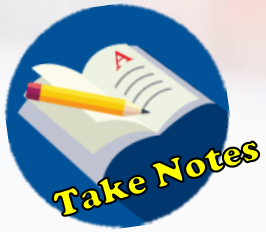

## Q2. How does a planet differ from a star?

| Star | Planet |
| --- | --- |
| Star is a luminous celestial bodies. That means this celestial body produce heat and light.<br>Ex: Sun | Planet is a non-luminous celestial bodies. This celestial body cannot produce heat and light.<br>Ex: Earth |

# CONSTELLATIONS

## Ursa Major / Big Bear


SERPENS
AQUILA
OPHIUCHUS
SCUTUM
LIBRA
CAPRICORN
SRB 1806 -20
SAGITTARIUS
SCORPIUS
LUPUS




## Q3. Define constellations? Give examples.

- ✓ The patterns formed by different groups of stars in the sky are called “Constellations”.
- ✓ They were named after different animals, objects and creatures depending on the shape they look.
- ✓ One of the most easily recognizable constellation is Saptarishi.

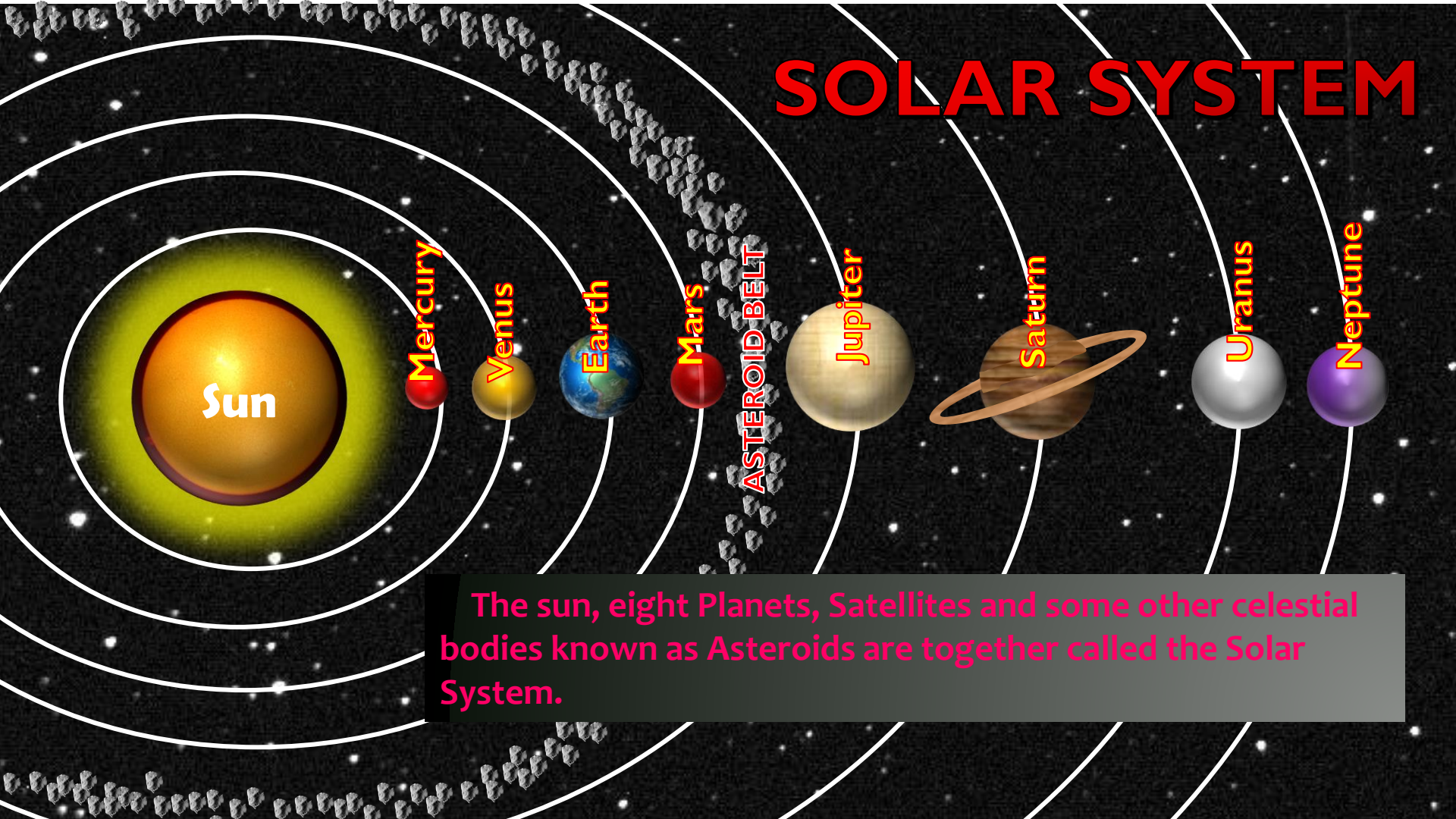
# Saptarishi

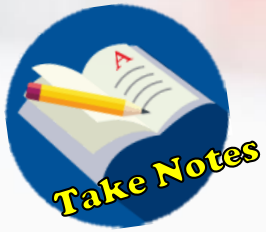
## Do You Know

In ancient times people used to determine directions during the night with the help of Stars. In the Northern Hemisphere people determine the North direction with the help of the North Star. It indicates the north direction. It is also called the Pole Star. It always remains in the same position in the sky. We can locate the position of the Pole Star with the help of Saptarishi (Ursa Major) constellation.

North Star
(Pole Star)

# SOLAR SYSTEM


SOLAR SYSTEM
Sun
Mercury
Venus
Earth
Mars
ASTEROID BELT
Jupiter
Saturn
Uranus
Neptune
The sun, eight Planets, Satellites and some other celestial bodies known as Asteroids are together called the Solar System.



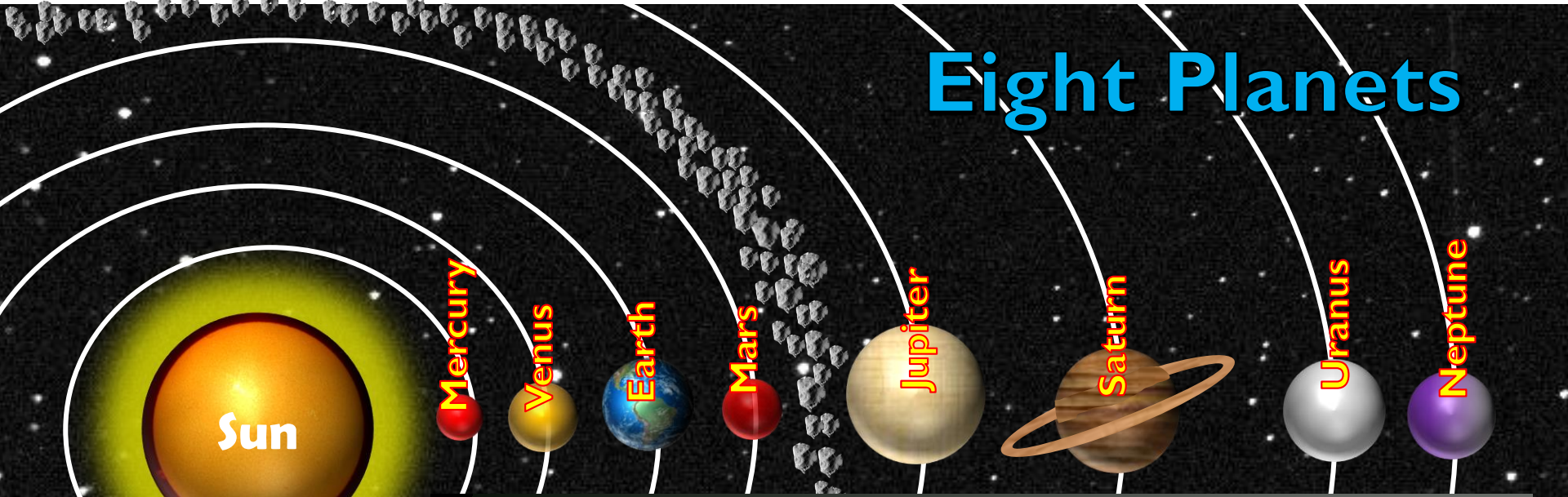

## Q4. What is meant by the Solar system?

The sun, eight Planets, Satellites and some other celestial bodies known as Asteroids are together called the Solar System.

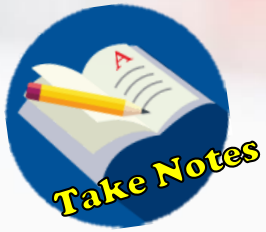
# The Sun


- ✓ The Sun is a star.
- ✓ Stars are luminous celestial bodies.
- ✓ These bodies consist gases like hydrogen and helium and produce heat through nuclear fusion.
- ✓ How big is the Sun? 13 lakhs Earths can fit inside the Sun.

# Eight Planets



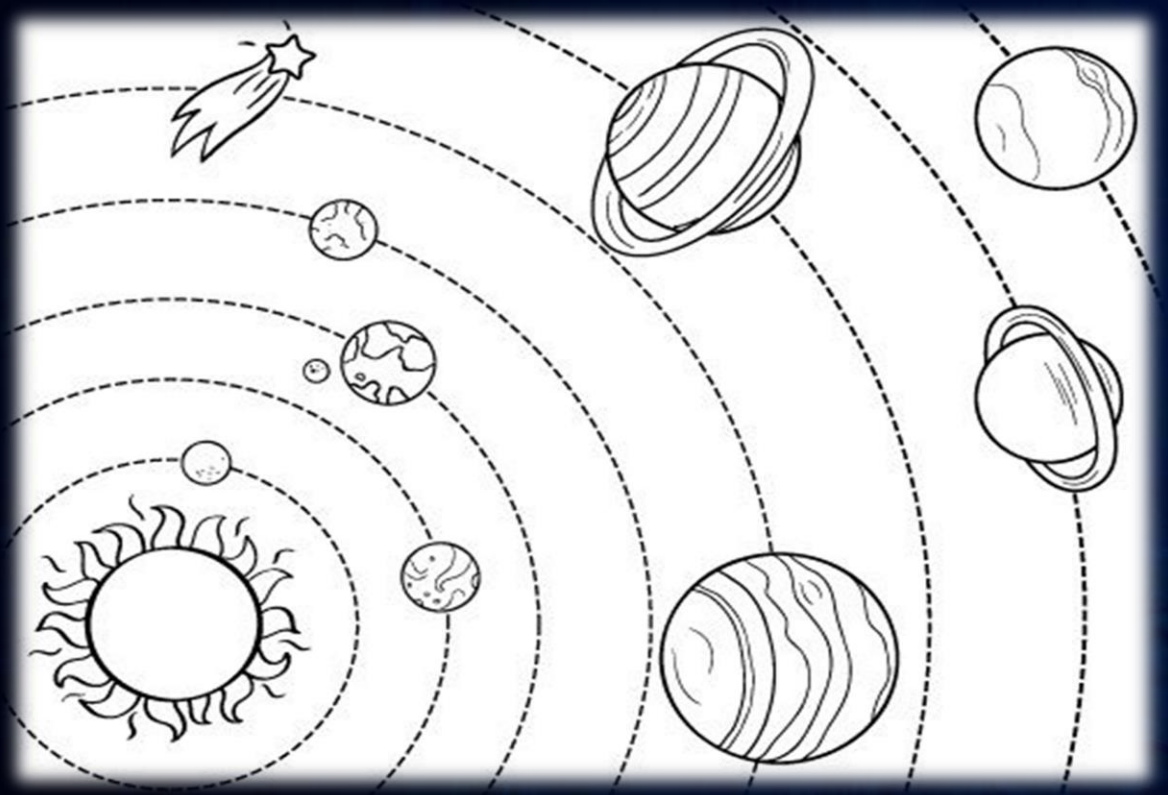

- ✓ The planets are the non-luminous celestial bodies.
- ✓ These planets move around the sun in a specific path (Orbit).
- ✓ Mercury, Venus, Earth and Mars are called Inner planets.
- ✓ Jupiter, Saturn, Uranus and Neptune are called Outer planets.

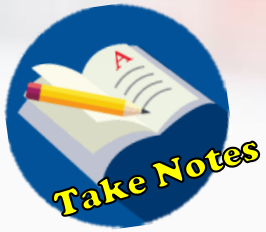



## Q5. What is orbit?

The specific path in which the planets move around the Sun is called Orbit.

# Colour and name …



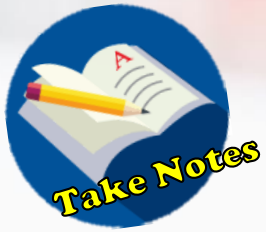



## Q6. How many planets are there in our solar system? What are they?

There are eight planets in our solar system.

They are:

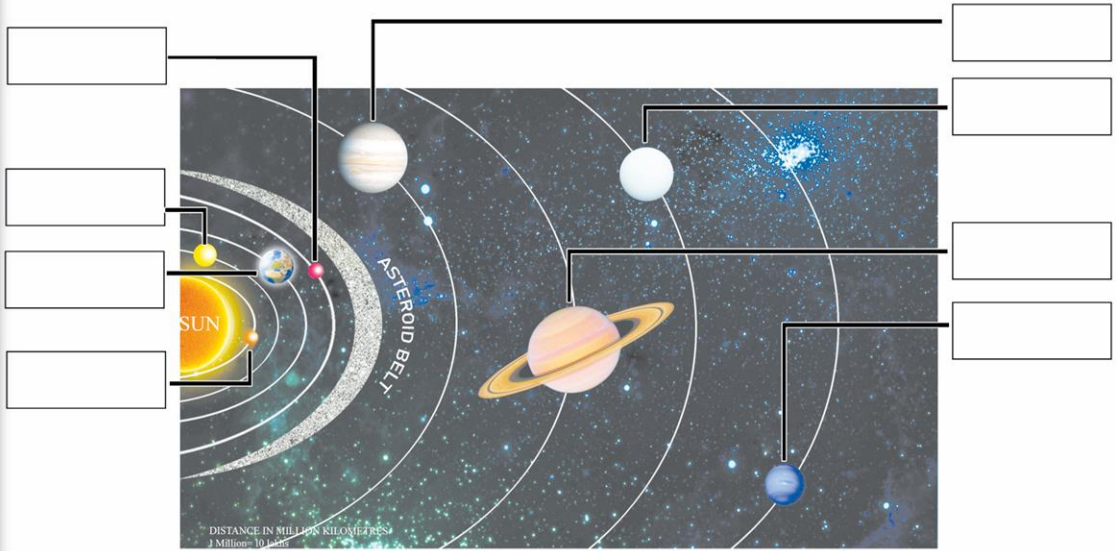
1. Mercury
2. Venus
3. Earth
4. Mars
5. Jupiter
6. Saturn
7. Uranus
8. Neptune




## Q7. How inner planets are differ from outer planets?

| Inner Planets | Outer Planets |
|---|---|
| i. Mercury, Venus, Earth and Mars are called inner planets.<br>ii. These are smaller in size.<br>iii. Composed with rocks. | i. Jupiter, Saturn, Uranus and Neptune are called outer planets.<br>ii. These are bigger in size.<br>iii. Composed with gases and liquids |

# Fill the given boxes…




# Prepare a table based on the given picture …

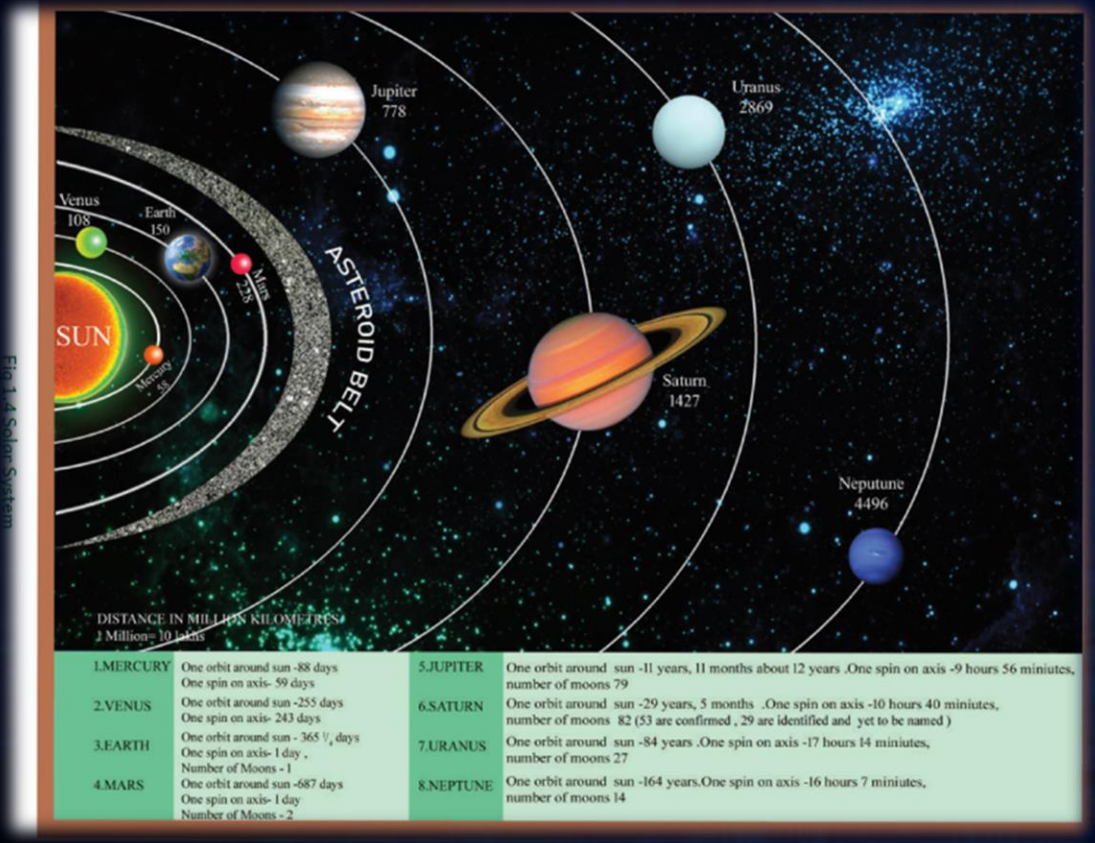
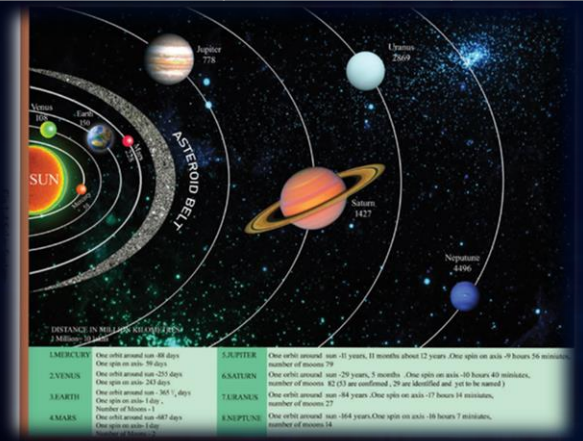



Fig 1.4 Solar System

| | |
|---|---|
| 1.MERCURY | One orbit around sun -88 days<br>One spin on axis- 59 days |
| 2.VENUS | One orbit around sun -255 days<br>One spin on axis- 243 days |
| 3.EARTH | One orbit around sun - 365 ¼ days<br>One spin on axis- 1 day ,<br>Number of Moons - 1 |
| 4.MARS | One orbit around sun -687 days<br>One spin on axis- 1 day<br>Number of Moons - 2 |
| 5.JUPITER | One orbit around sun -11 years, 11 months about 12 years .One spin on axis -9 hours 56 miniutes, number of moons 79 |
| 6.SATURN | One orbit around sun -29 years, 5 months .One spin on axis -10 hours 40 miniutes, number of moons 82 (53 are confirmed , 29 are identified and yet to be named ) |
| 7.URANUS | One orbit around sun -84 years .One spin on axis -17 hours 14 miniutes, number of moons 27 |
| 8.NEPTUNE | One orbit around sun -164 years.One spin on axis -16 hours 7 miniutes, number of moons 14 |

# Prepare a table based on the given picture …

| Name of the Planet | Number from the Sun | Number of Satellites | Rotation Time | Revolution Time | Distance from the Sun |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |




# Prepare some questions based on the following table…

| Name of the Planet | Number from the Sun | Number of Satellites | Rotation Time | Revolution Time |
|---|---|---|---|---|
| Mercury | 1 | 0 | 59 days | 88 days |
| Venus | 2 | 0 | 243 days | 255 days |
| Earth | 3 | 1 | 1 day | 365 ¼ days |
| Mars | 4 | 2 | 1 day | 687 days |
| Jupiter | 5 | 79 | 9 h. 56 min. | 11 y.11 mon. |
| Saturn | 6 | 82 | 10 h. 40 min. | 29 y. 5 mon. |
| Uranus | 7 | 27 | 17 h. 14 min. | 84 y. |
| Neptune | 8 | 14 | 16 h. 7 min. | 164 y. |

# Read the following table and answer the below questions.

| Name of the Planet | Number from the Sun | Number of Satellites | Rotation Time | Revolution Time | Distance from the Sun |
|---|---|---|---|---|---|
| Mercury | 1 | 0 | 59 days | 88 days | 58 m. KM |
| Venus | 2 | 0 | 243 days | 255 days | 108 m. KM |
| Earth | 3 | 1 | 1 day | 365 ¼ days | 150 m. KM |
| Mars | 4 | 2 | 1 day | 687 days | 228 m. KM |
| Jupiter | 5 | 79 | 9 h. 56 min. | 11 y.11 mon. | 778m. KM |
| Saturn | 6 | 82 | 10 h. 40 min. | 29 y. 5 mon. | 1427 m. KM |
| Uranus | 7 | 27 | 17 h. 14 min. | 84 y. | 2869 m. KM |
| Neptune | 8 | 14 | 16 h. 7 min. | 164 y. | 4496 m. KM |

## Read the following table and answer the below questions.

1. Which is the nearest planet to the Sun?
2. Which is the farthest planet from the Sun?
3. Which planet has highest number of moons?
4. Which planet takes more time for one rotation?
5. Which planet takes less time for one rotation?

## Read the following table and answer the below questions.

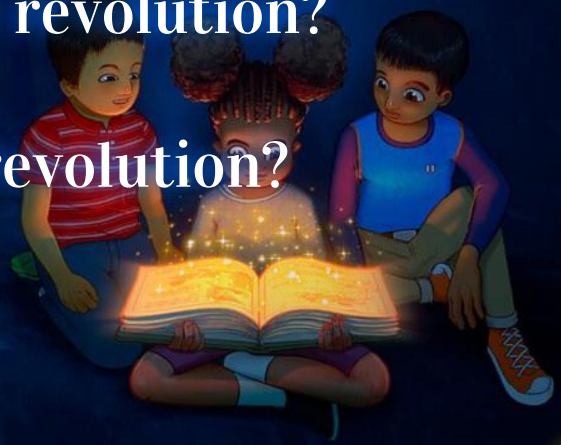
6. How much time the Earth takes for one rotation?

7. How much time the Earth takes for one revolution?

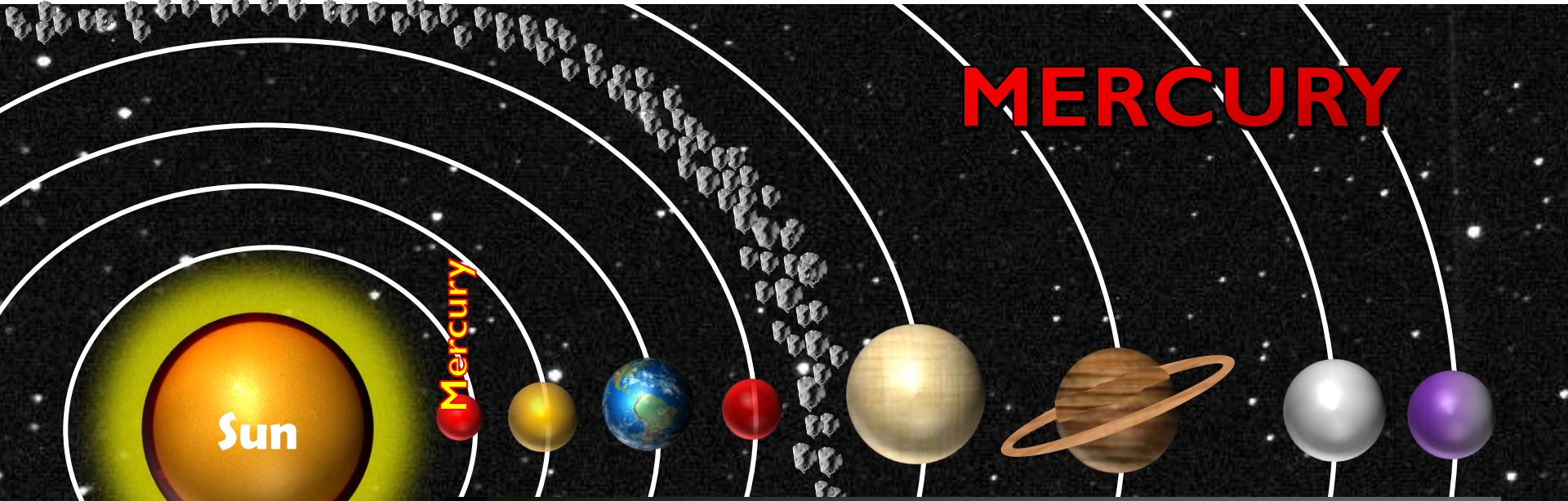
8. Which planet takes more time for one revolution?

9. Which planet takes less time for one revolution?

10. Which planets have no moons?

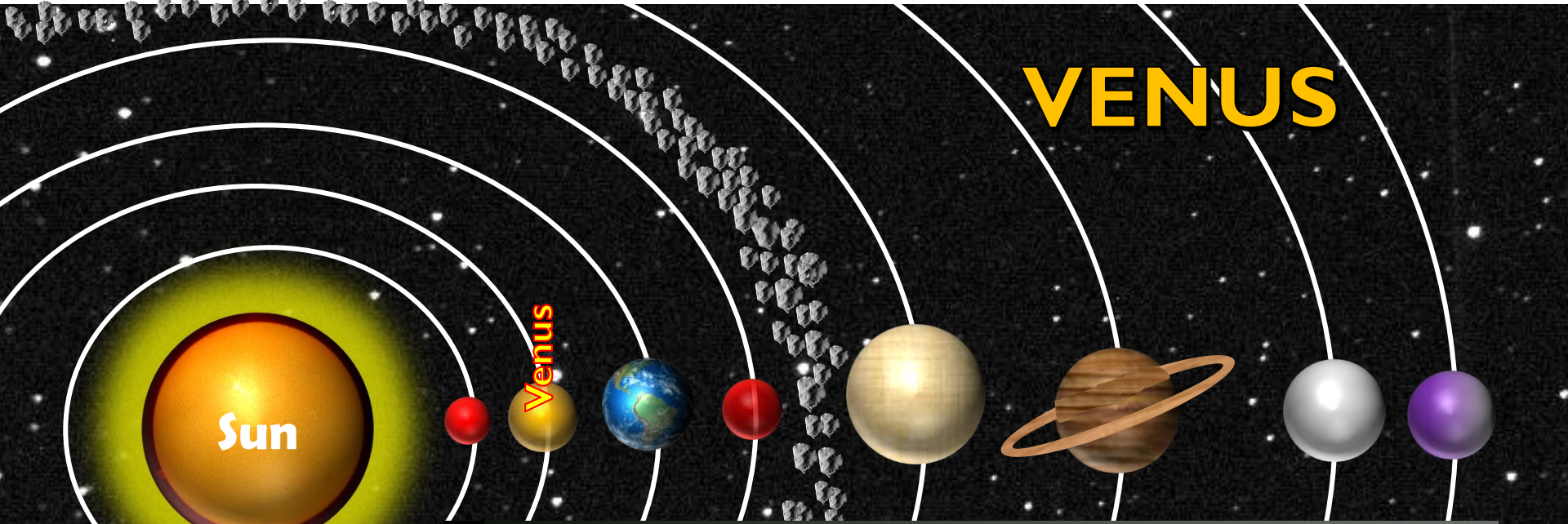


# MERCURY



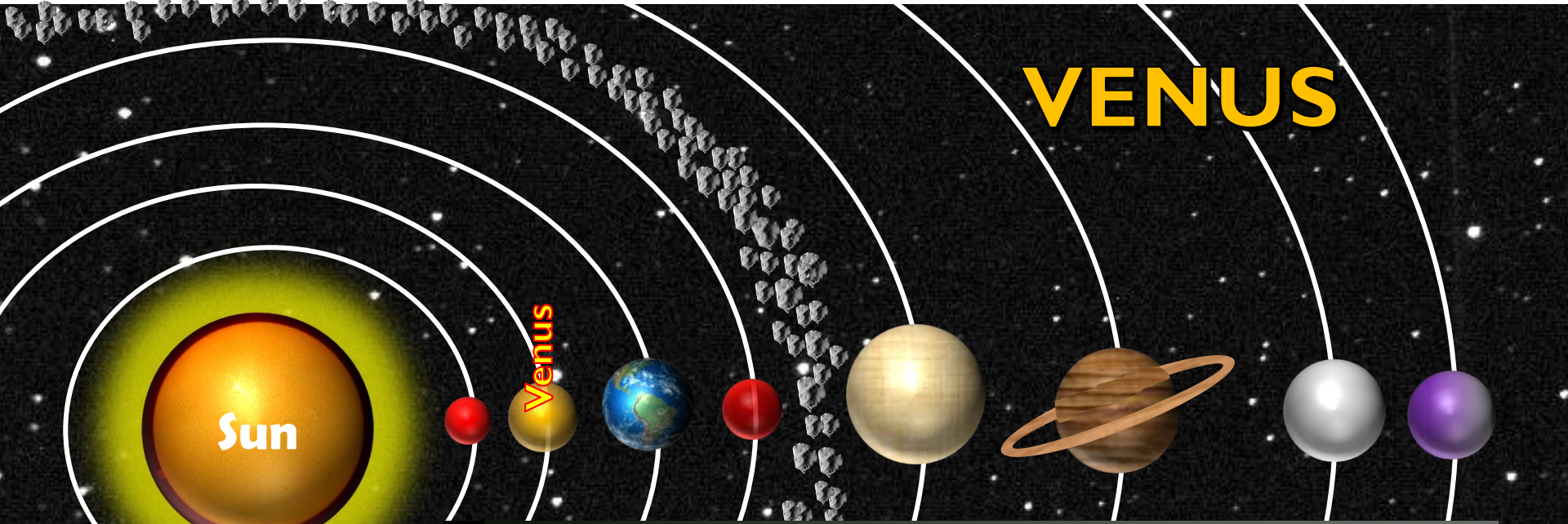

- ✓ This is the nearest planet to the Sun.
- ✓ This is the **smallest planet** among eight planets.
- ✓ It has no satellites.
- ✓ It takes 88 days for one revolution around the sun. (Minimum)
- ✓ It takes 59 days for one rotation on its axis.

# VENUS




- ✓ This is the second planet from the Sun.
- ✓ This planet moves clock wise direction around the sun.

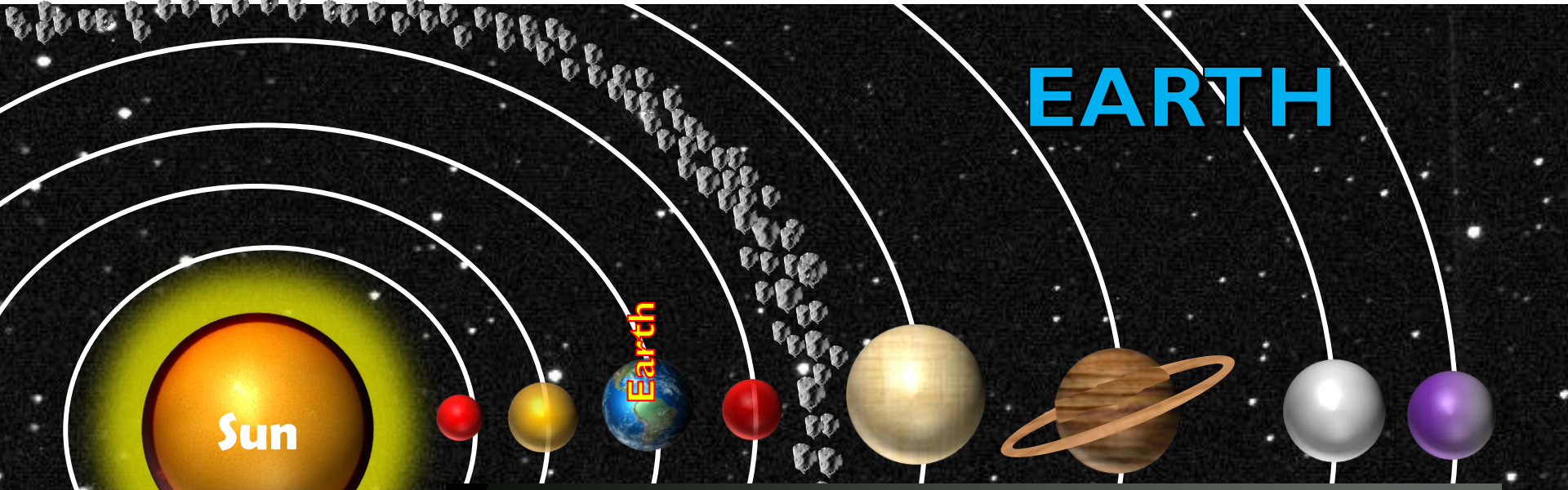
# VENUS




- ✓ This is the second planet from the Sun.
- ✓ This planet moves clock wise direction around the sun.
- ✓ This is considered as Earth's twin.
- ✓ It has no satellites.
- ✓ It takes 255 days for one revolution around the sun.
- ✓ It takes 243 days for one rotation on its axis. (Maximum)

# The Earth

# EARTH




- ✓ This is the 3rd planet from the Sun and 5th planet in size.
- ✓ This is know as blue planet.
- ✓ It has one satellites (Moon). Shape of the Earth – Geoid.
- ✓ It takes 365 ¼ days for one revolution around the sun.
- ✓ It takes 1 days for one rotation on its axis.


# Spheres of the Earth

## Lithosphere

The lithosphere is the land on which we live. It is the solid outer layer of the Earth consisting of rocks and soils.

## Hydrosphere

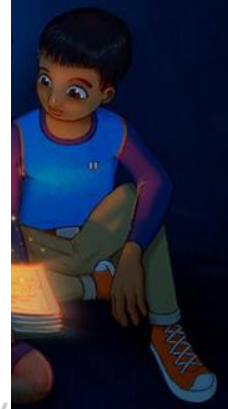
The hydrosphere consists of water bodies such as Oceans, Seas, Rivers, Lakes, Ice caps on mountains, Tanks etc.,

## Atmosphere

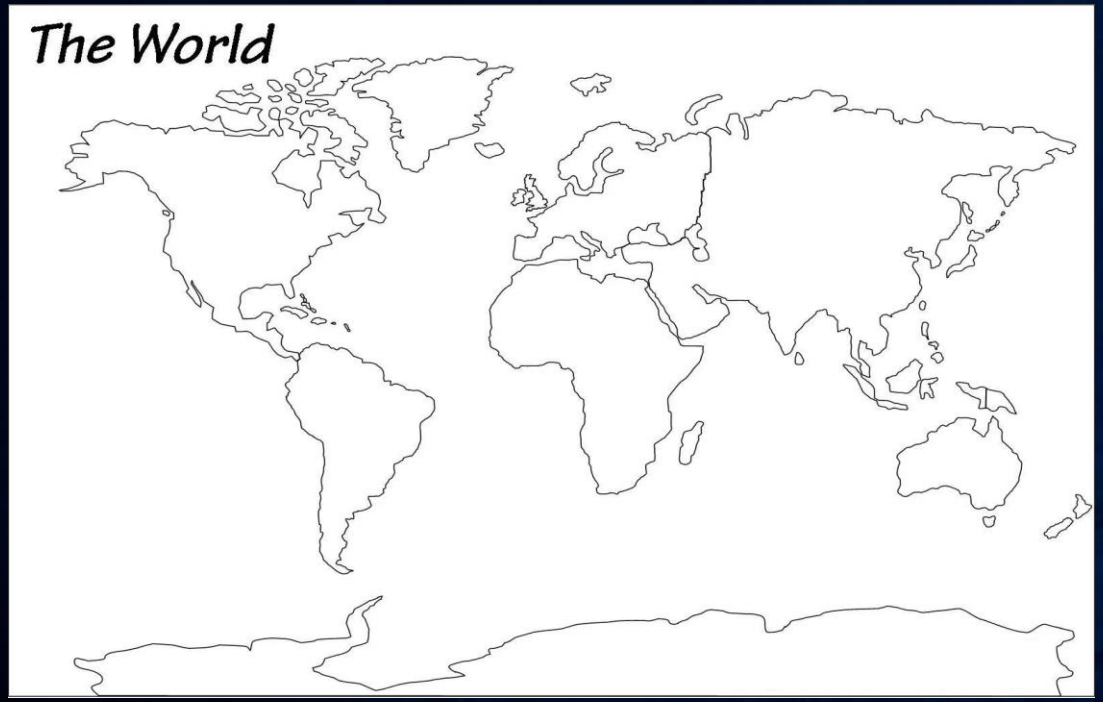
Atmosphere is the layer of air that surrounds the Earth. Different types of gases make up the atmosphere. The major gases are Nitrogen (78%) and Oxygen (21%). The other gases like Carbon dioxide, Hydrogen, Helium, Argon, and Ozone are present in smaller amounts.

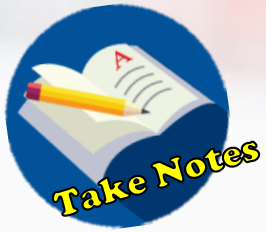
## Biosphere

All living things existing on the land, in the water and in the air together called as biosphere. It consists of plants, animals, bacteria and other tiny organisms. We will learn more about these spheres in higher classes.



Colour land part with green and water part with blue and observe which part is more and less on the Earth.

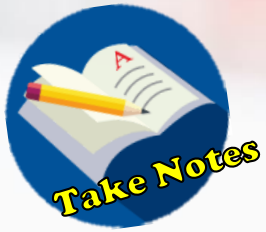



## Q8. The Earth is called as blue planet. Why?

i. Major part of the Earth that is 71% of the Earth covered with water.

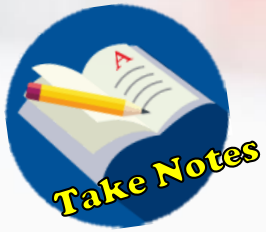
ii. So, the Earth is called as blue planet.




## Q9. Why is life not possible on all planets?

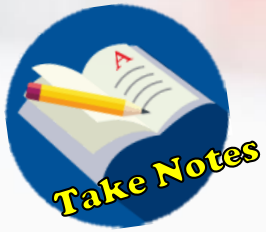
i. There is no air, water and suitable climate on the all planets except the Earth.

ii. So, the life is not possible on all planets except the Earth.

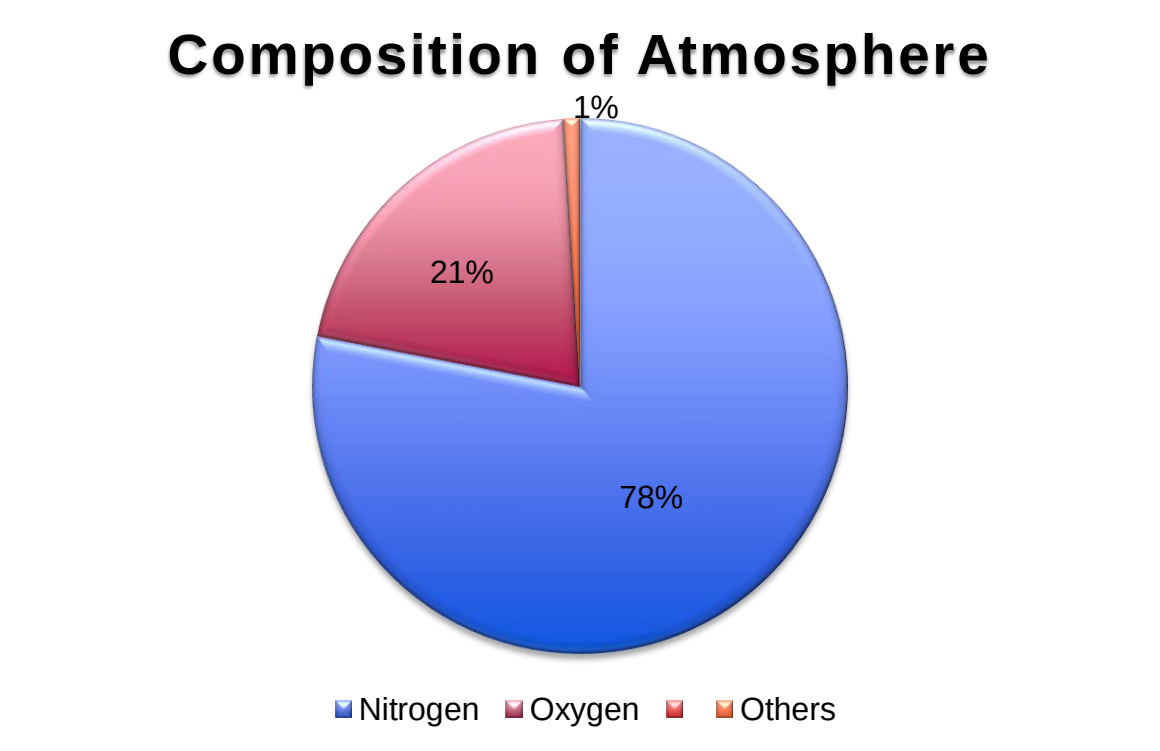



# Q10. Prepare a table with spheres of the Earth.

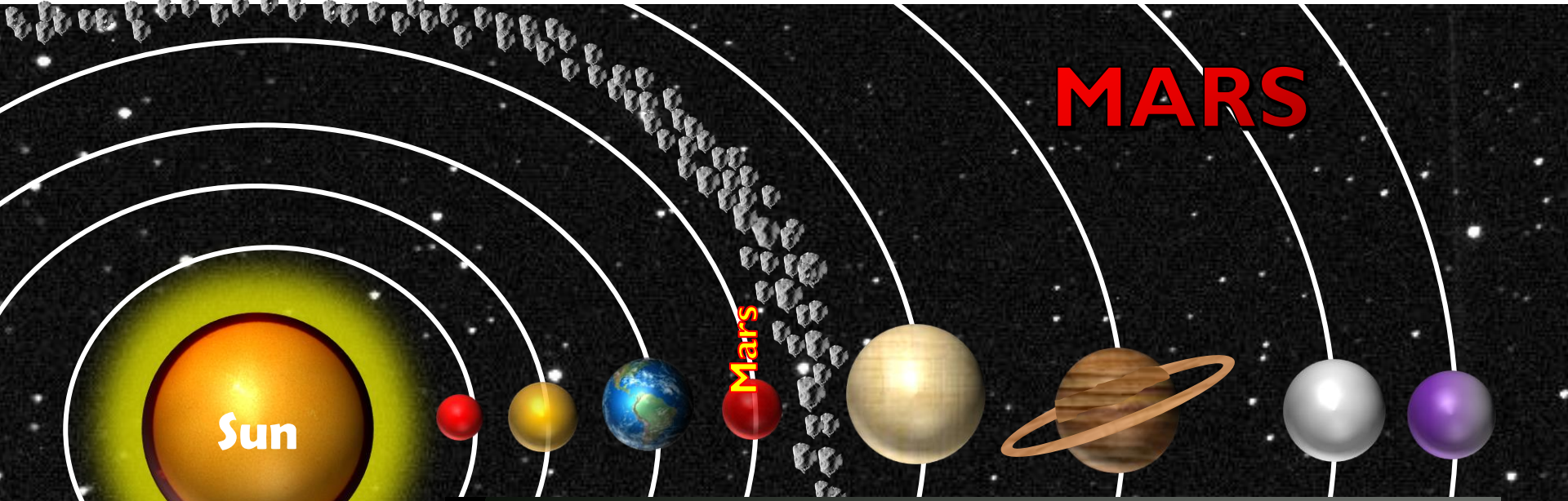
| Spheres of the Earth | Covered with |
|---|---|
| i. Lithosphere | Rocks |
| ii. Hydrosphere | Water |
| iii. Atmosphere | Air |
| iv. Biosphere | Lives |




# Q11. Prepare a pie chart on the composition of the Atmosphere.

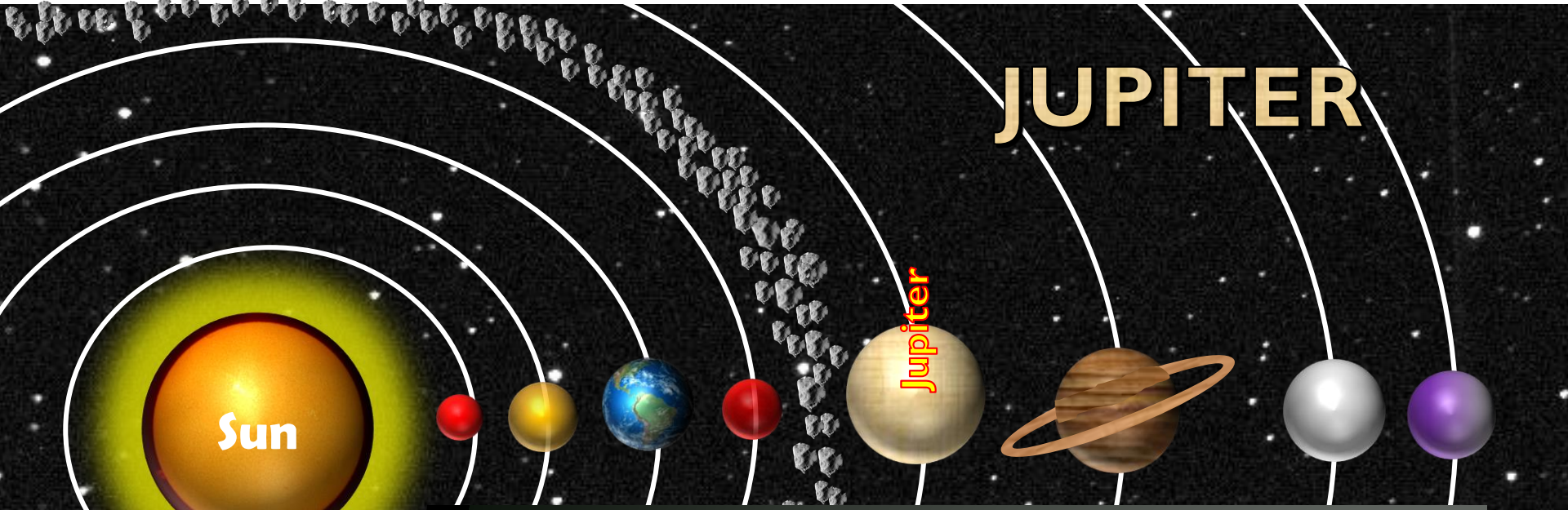


# MARS



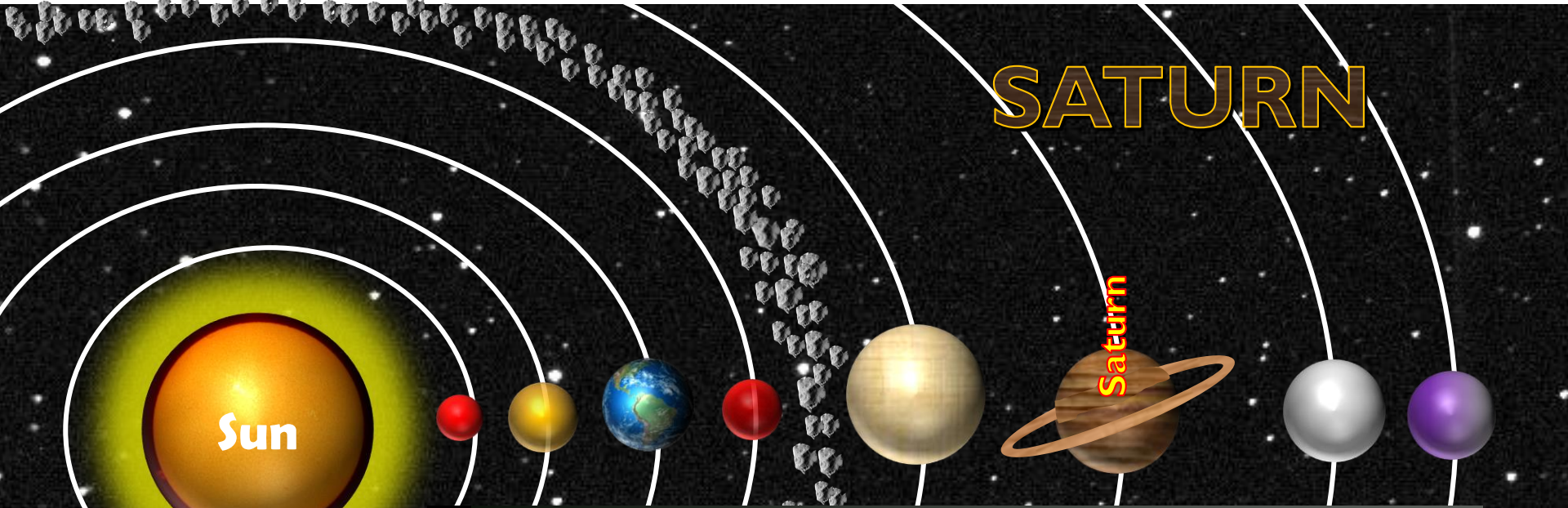

- ✓ This is the 4th planet from the Sun.
- ✓ It has 2 satellites.
- ✓ It takes 687 days for one revolution around the sun.
- ✓ It takes 1 day for one rotation on its axis.

# JUPITER



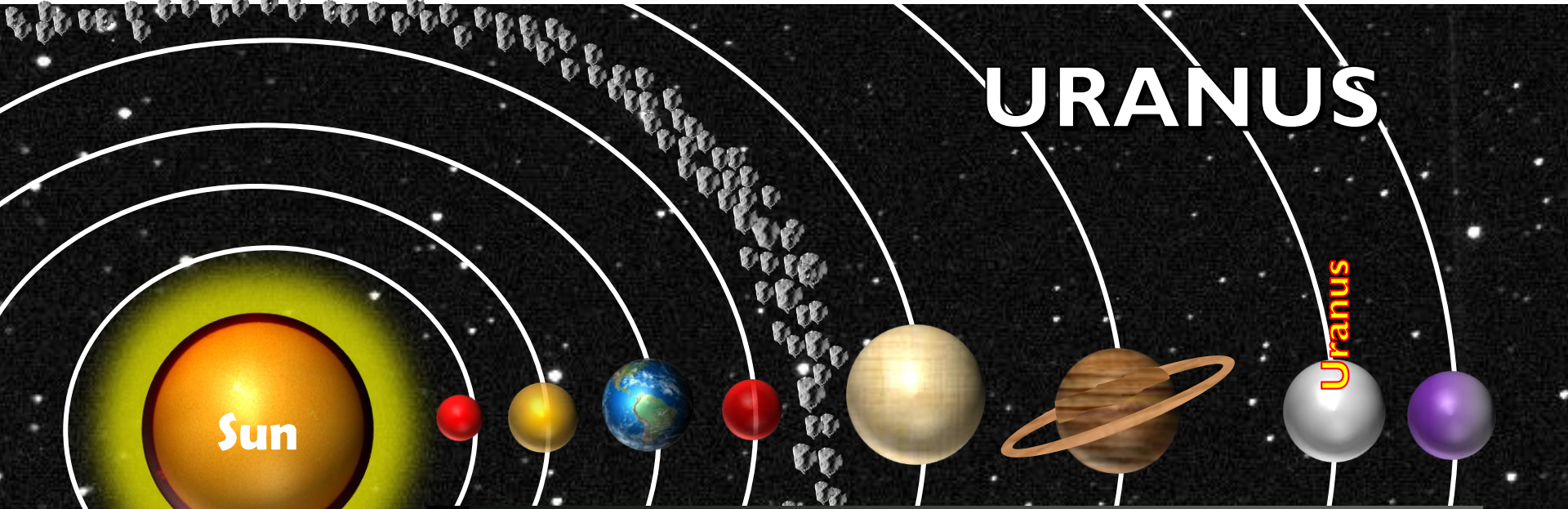

- ✓ This is the 5th planet from the Sun.
- ✓ This is the biggest planet among eight planets.
- ✓ It has 79 satellites.
- ✓ It takes 12 years for one revolution around the sun.
- ✓ It takes 9 hours, 56 min. for one rotation on its axis. (Minimum)

# SATURN



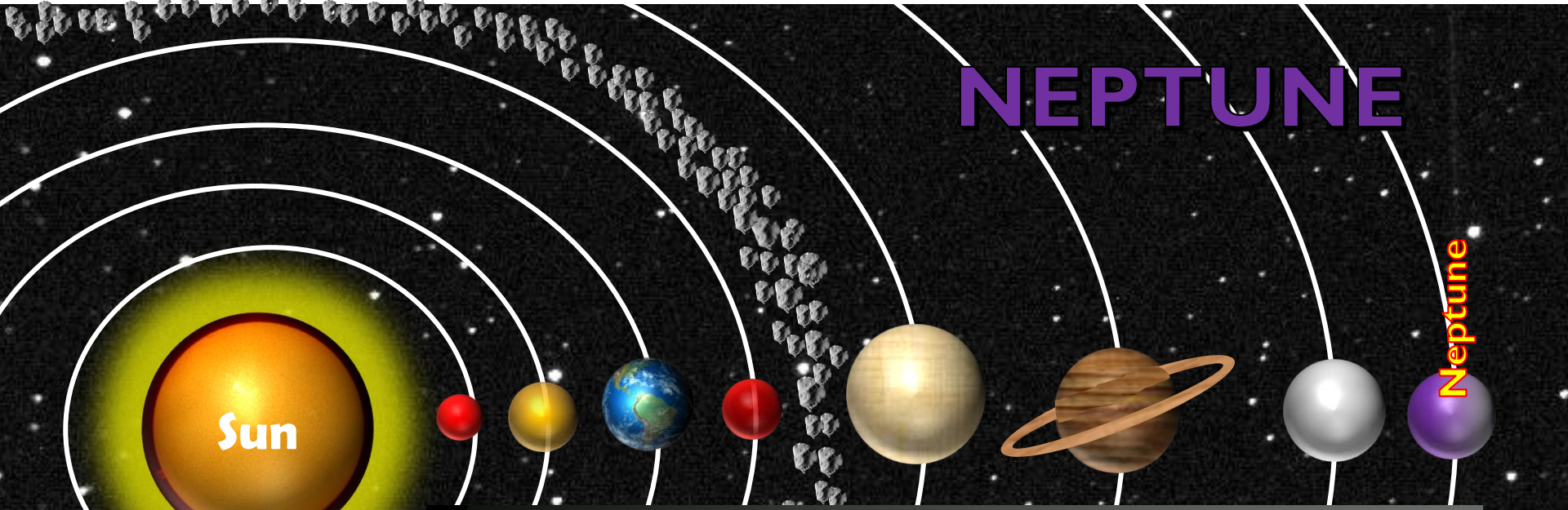

- ✓ This is the 6th planet from the Sun.
- ✓ It has rings.
- ✓ It has 82 satellites. (Highest)
- ✓ It takes 29 years, 5 months for one revolution around the sun.

# URANUS



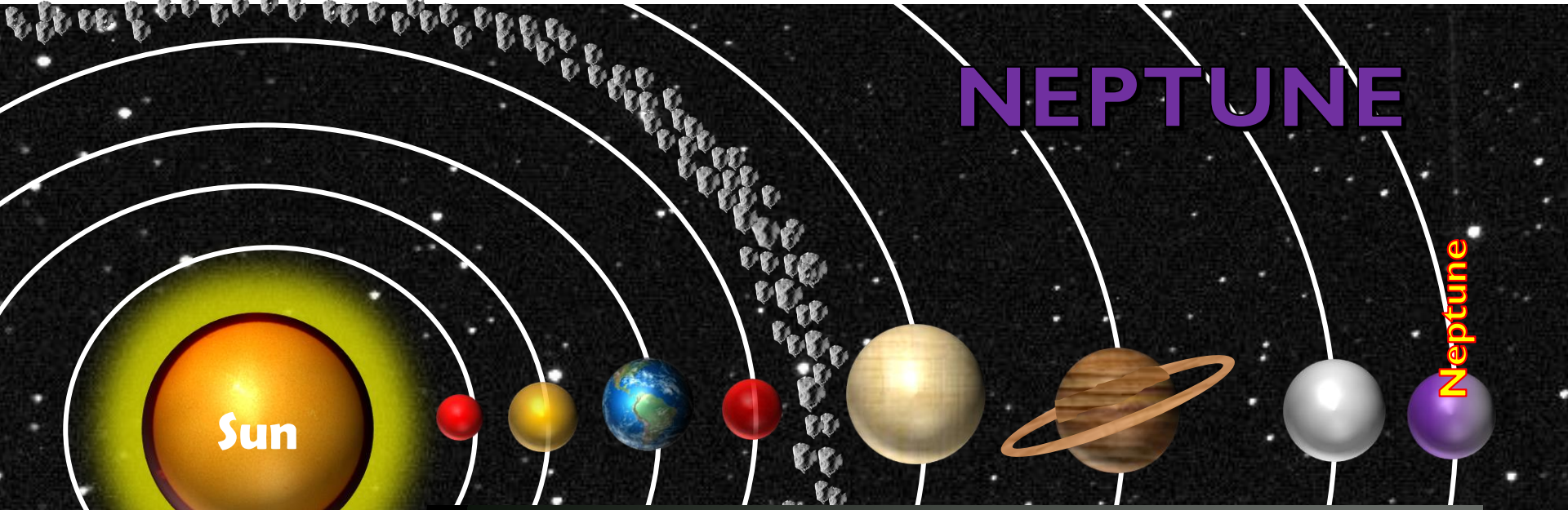

- ✓ This is the 7th planet from the Sun.
- ✓ It moves clock wise direction around the sun.
- ✓ It has 27 satellites.
- ✓ It takes 84 years for one revolution around the sun.
- ✓ It takes 17 hours, 14 min. for one rotation on its axis.

# NEPTUNE




- ✓ This is the 8th planet from the Sun. (Farthest)
- ✓ It has 14 satellites.

# NEPTUNE




- ✓ This is the 8th planet from the Sun. (Farthest)
- ✓ It has 14 satellites.
- ✓ It takes 164 years for one revolution around the sun. (Maximum)
- ✓ It takes 16 hours, 7 min. for one rotation on its axis.

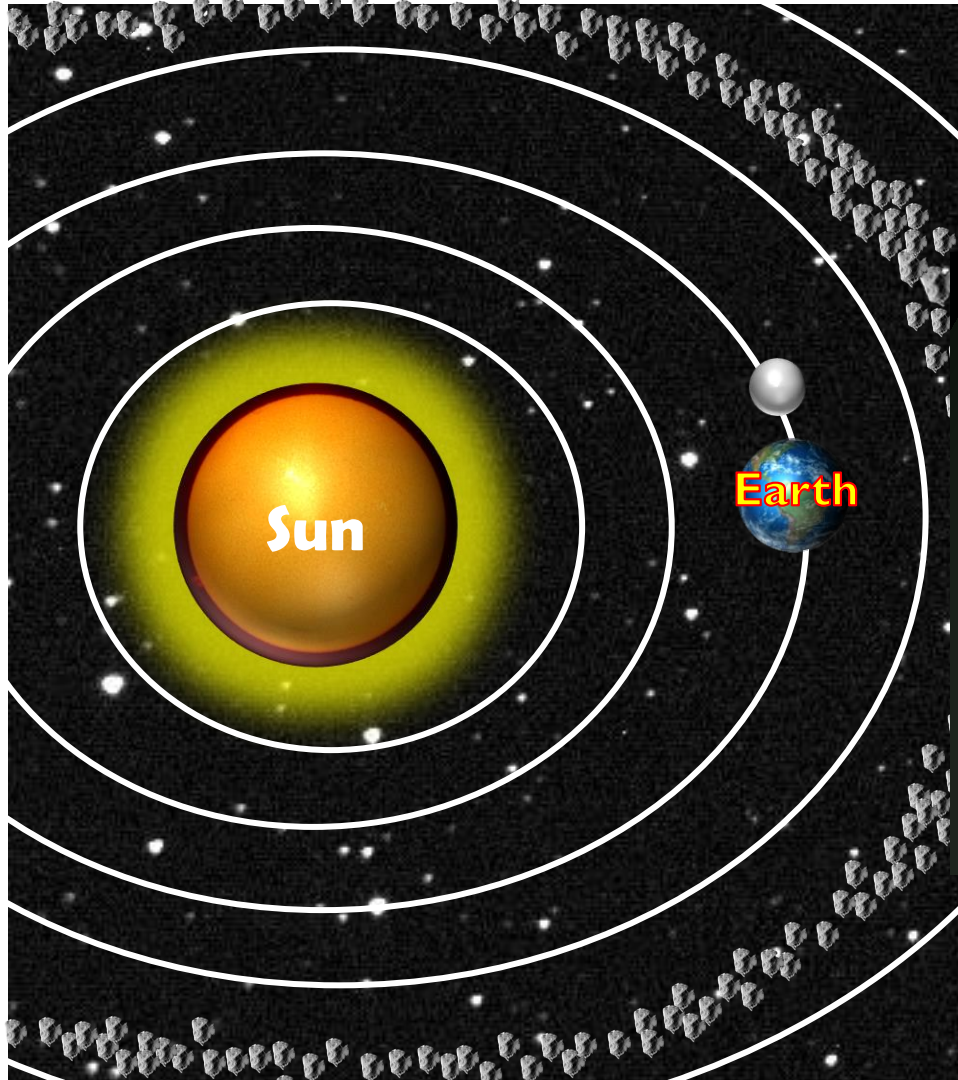
## Explore

- Up to 2006 there were nine Planets in our Solar system, but now we have only eight Planets. What was the 9$^{th}$ planet? What happened to it? Find out the reasons with the help of your teacher.

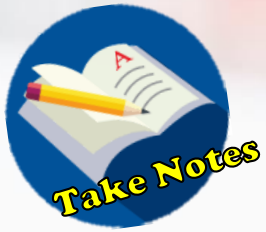
## Do You Know

- Light travels at the speed of about 300,000 km per second. Yet even with this speed, the light of the Sun takes about eight minutes to reach the Earth.

# Satellites




- ✓ The celestial bodies which move around the planets are called Satellites.
- ✓ Moon is the natural satellite of the Earth.
- ✓ These are of two types: 1. Natural Satellites, 2. Man made Satellites.
- ✓ Except Mercury and Venus, all other planets have natural satellites.




## Q12. What are Satellites?

i. The celestial bodies which move around the planets are called Satellites.

ii. Moon is the natural satellite of the Earth.

# Moon

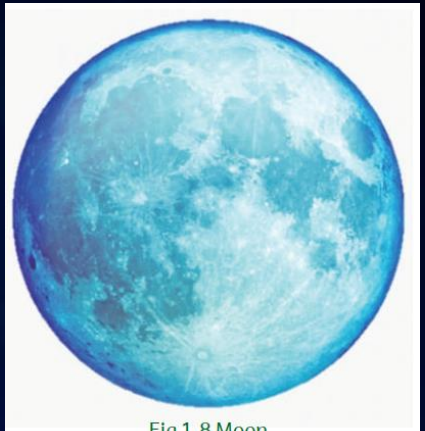


Fig 1.8 Moon

- It is the only natural satellite of the Earth.
- Its diameter is only one – quarter that of the Earth.
- It is about 3,84,400 KM away from us.

# Moon

- ✓ The Moon moves around the Earth is about 27 days.
- ✓ It takes exactly the same time to complete one spin.
- ✓ As a result, only one side of the Moon is visible to us on the Earth.

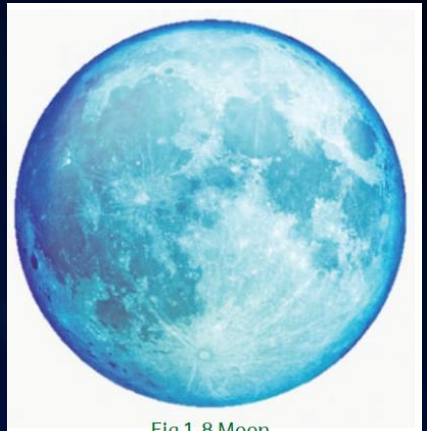


Fig 1.8 Moon

# Moon

## Do You Know

Neil Armstrong, an American Astronaut, was the first man to step on the surface of the Moon on 21st July 1969.

## Explore

- Who is the first Indian Astronaut to go into space?
- Have you heard about Chandrayaan-1 and Chandrayaan-2. Try to know about them and discuss in the class.

# Man-Made Satellites


## Man-made Satellite

It is an artificial body. It is designed by scientists to gather information about the universe and the Earth for communication. It is carried by a rocket and placed in the orbit around the Earth and other Solar bodies. Some of the Indian Satellites in space are INSAT, IRS, EDUSAT etc.

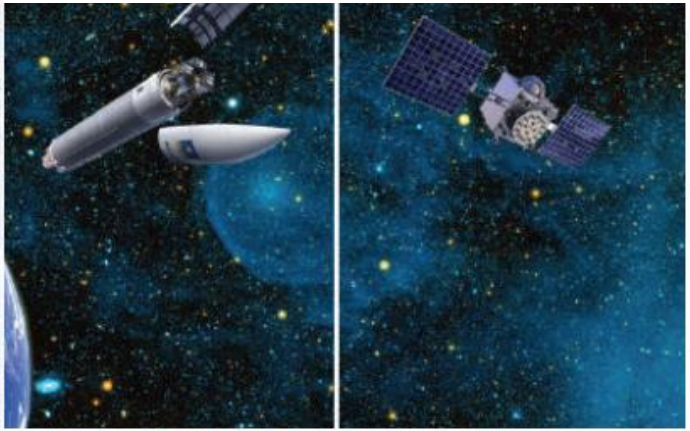
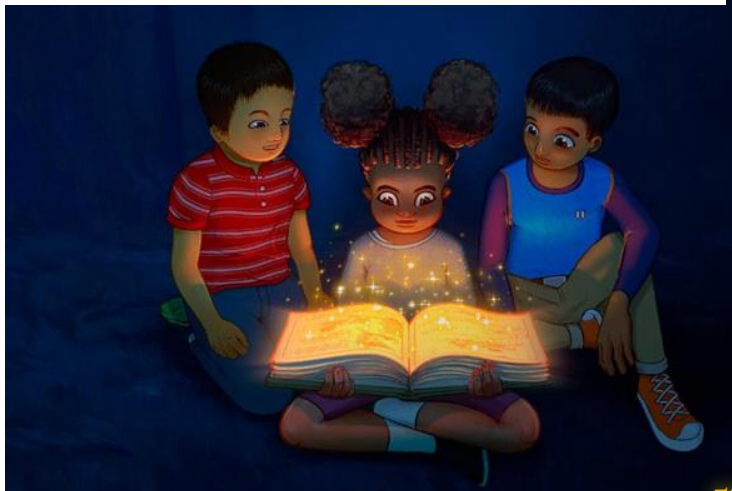


Fig 1.9 Launching of Satellite into space



# Collect some name of man-made satellites and their importance.

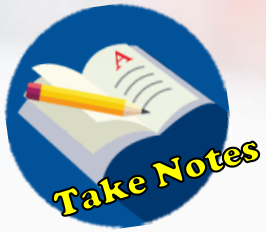
Fig 1.9 Launching of Satellite into space

## Do You Know

- Indian Space Research Organisation (ISRO) launches Satellites into space from its launching station at Sriharikota. It was named as "Satish Dhawan Space Centre (SDSC) Sriharikota High Altitude Range (SHAR)" in memory of Satish Dhawan, former Chairman of the ISRO.

## Do You Know

- On 24th September, 2014 Mangalyaan (Mars Orbiter Mission - MOM), launched by the Indian Space Research Organization (ISRO), reached the orbit of Mars to explore its atmosphere and topography. ISRO has now become the fourth space agency in the world to reach Mars after the Soviet Space programme, NASA and the European Space Agency.



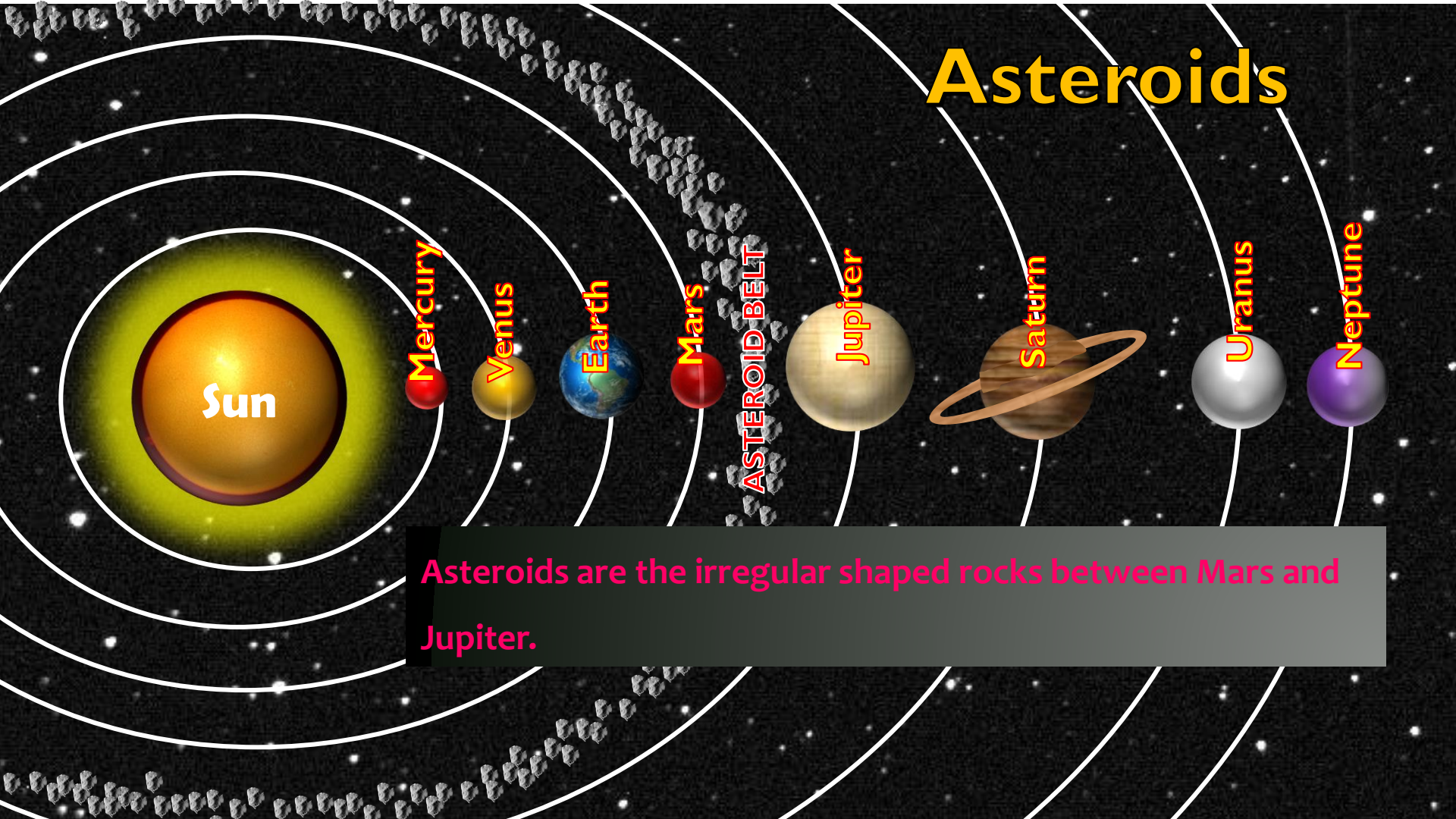

## Q13. Why do we always see only one side of the Moon?

i. The Moon moves around the Earth is about 27 days.

ii. It takes exactly the same time to complete one spin.

iii. As a result, only one side of the Moon is visible to us on the Earth.

# Asteroids




Asteroids are the irregular shaped rocks between Mars and Jupiter.

# METEOROIDS


- ✓ The small pieces of rocky or metallic bodies which move around the sun are called Meteoroids.
- ✓ Some times these meteoroids came near the Earth and burn due to friction with the air.
- ✓ Some times, these meteoroids without being completely burnt, falls on the Earth and creates a hollow.

# COMETS


- ✓ A Comet is a celestial object made up of a head and a tail.
- ✓ The head of a comet consists of solid particles held together by ice and the tail is made of gases.
- ✓ Halley's comet is the most famous comet which comes close to the Earth every 76 years.
- ✓ This comet appeared in 1986 and will appear next in 2061.

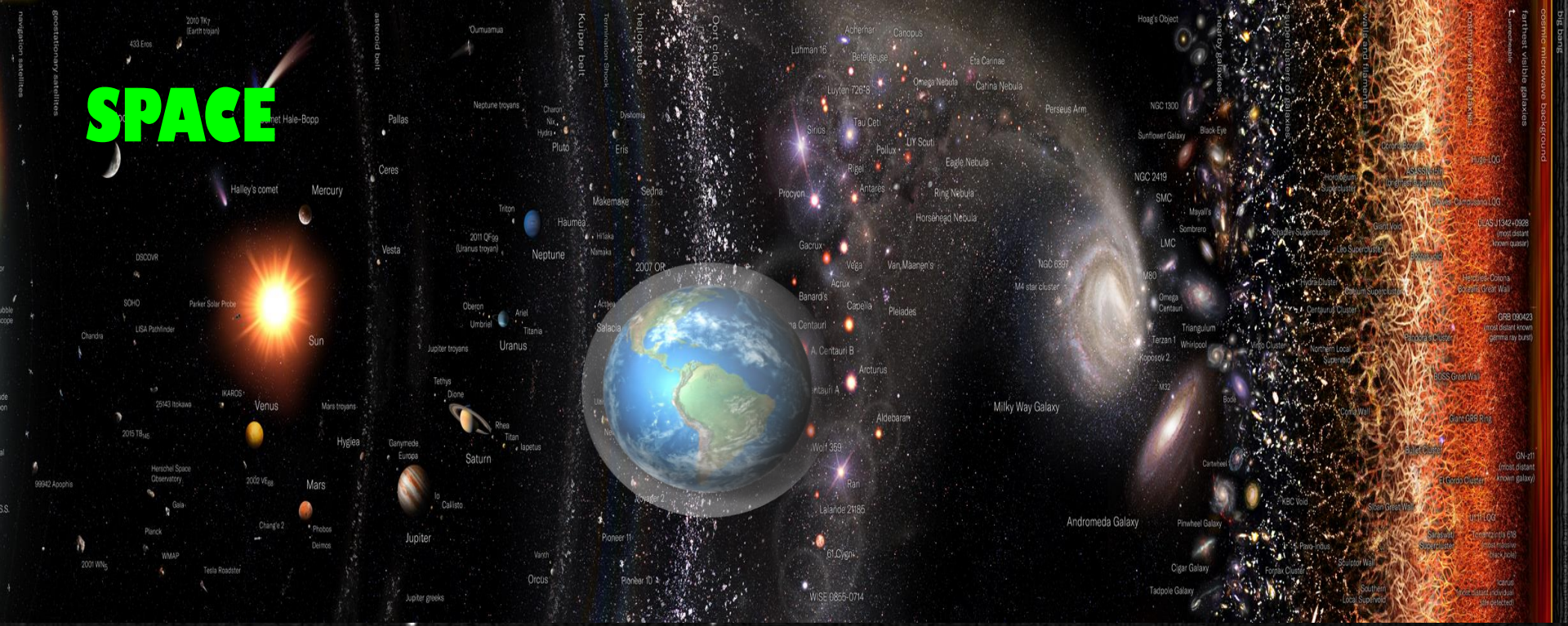
# NEBULA

Helix Nebula

- ✓ A giant cloud of dust and gas in space between stars is called "Nebula".
- ✓ According to scientists .. Nebulas are the birth places of stars.

# GALAXY


- ✓ A cluster of millions of stars is called “Galaxy”.
- ✓ Our solar system is a part of Milky way galaxy.
- ✓ It is also called Akasha Ganga.




- ✓ **Space is every thing in the universe beyond the top of the Earth's atmosphere.**

# UNIVERSE

- ✓ All of space and their contents including planets, stars, galaxies and all other celestial bodies is called “Universe”.
- ✓ **Our Earth is a tiny object in the Universe.**

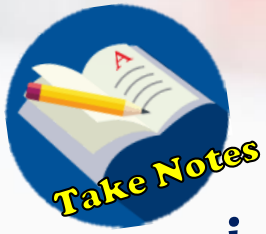
Universe

Galaxy

## Think & Respond

Can you relate yourself with the Universe now? You are on the Earth and the Earth is a part of the Solar system. Our Solar system is a part of the Milky Way or Galaxy which is part of the Universe. Think of the fact that Universe contains millions of such galaxies. How do you fit in the picture? How tiny you are? Think a while.


Fig 1.13 Earth and Universe



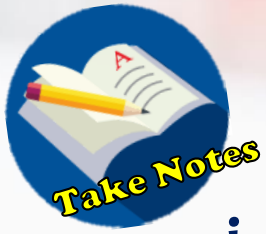

## Q14. What are the Asteroids?

i. The small irregular shape rocky objects which are move around the sun are called Asteroids.

ii. They are between the orbits of Mars and Jupiter.

## Q15. What are Meteoroids?

i. The small pieces of rocky or metallic bodies which are move around the Sun are called Meteoroids.

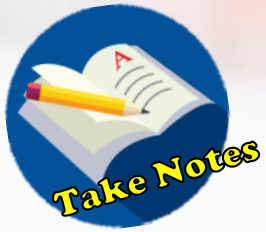



## Q16. What is comet?

i. A Comet is a celestial object made up of a head and a tail.

ii. The head of a comet consists of solid particles held together by ice and tail is made of gases.

iii. Holley's Comet is the most famous comet which comes close to the Earth every 76 years.




## Q17. What is the Galaxy?

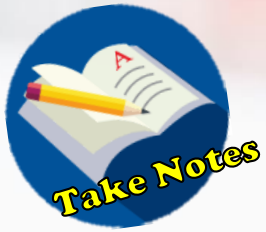
i. A galaxy is a huge cluster of stars.

ii. Our solar system is a part of Milky Way galaxy.

## Q18. What is the Universe?

i. There are millions of galaxies that makes the Universe.

ii. It is difficult to imagine how big the universe is.

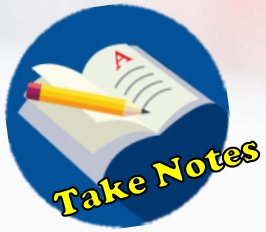



**Q19. Air and water are essential to live on the Earth. But now they are being polluted by humans. What happens to the life of humans on this Earth if pollution increases further?**

i. Air and water are essential to live on the Earth.

ii. But now they are being polluted due to human activities.

iii. If It will continue life of human will be difficult on the Earth.




**Q20. Scientists are now trying to explore more about moon and other planets. Do you think their efforts benefit us?**

i. Scientist are now trying to explore more about moon and other planets.

ii. I think their effort benefit us.

iii. It help to improve our living area.

# Summary

- ✓ The astronomical objects like the Sun, the Earth , the Moon etc. are called Celestial bodies.
- ✓ The pattern of Stars are called Constellation.
- ✓ The sun, eight Planets, Satellites and some other celestial bodies known as Asteroids are together called the Solar System.

# Summary

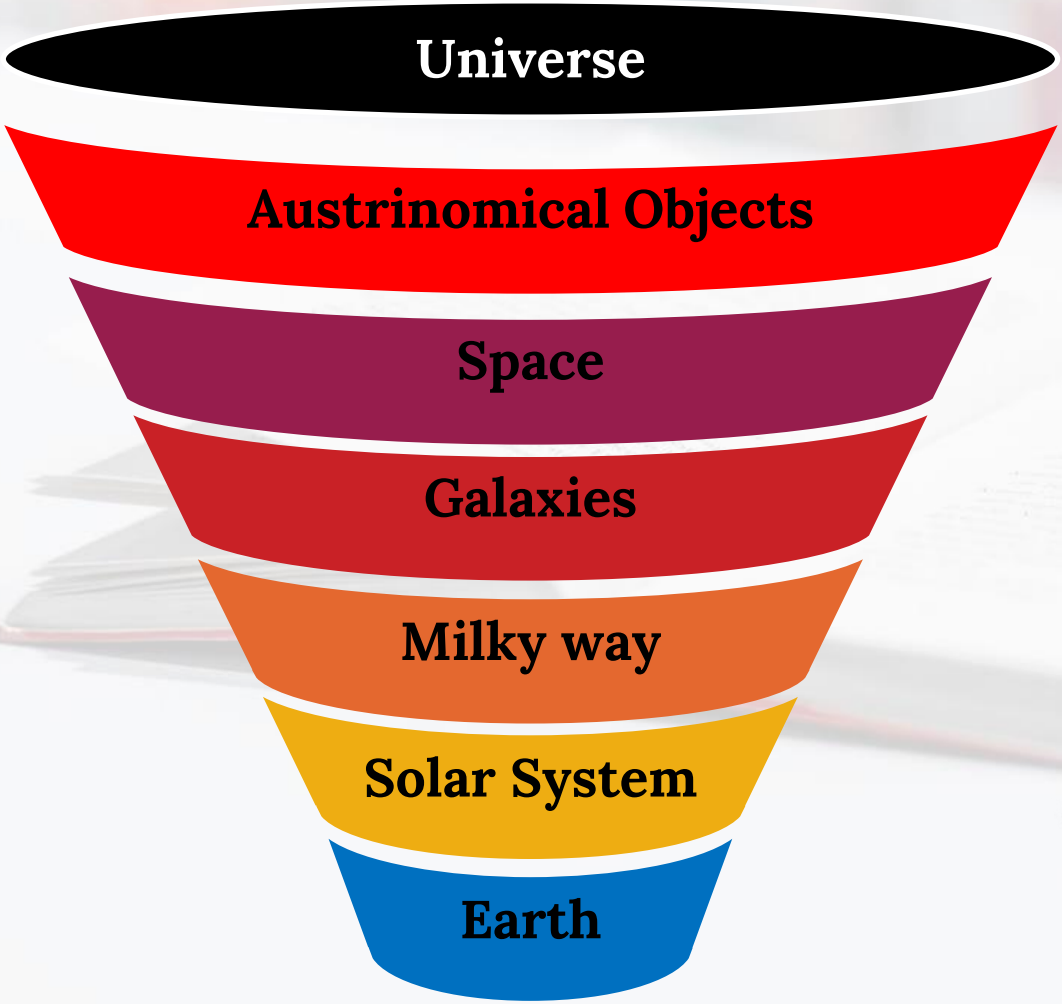
- ✓ Mercury is the nearest planet to the sun and Neptune is the farthest planet to the sun.
- ✓ Mercury is the smallest planet and Jupiter is the biggest planet.
- ✓ The planet which takes the minimum time of revolution is Mercury and the planet which takes maximum time of revolution is Neptune.

# Summary

- ✓ The planet which takes the minimum time for rotation is Jupiter and the planet which takes maximum time for rotation is Venus.
- ✓ Stars are the luminous celestial bodies where as planets are the non-luminous celestial bodies which move around the sun in a specific path.
- ✓ The celestial bodies which move around the planets are called Satellites.

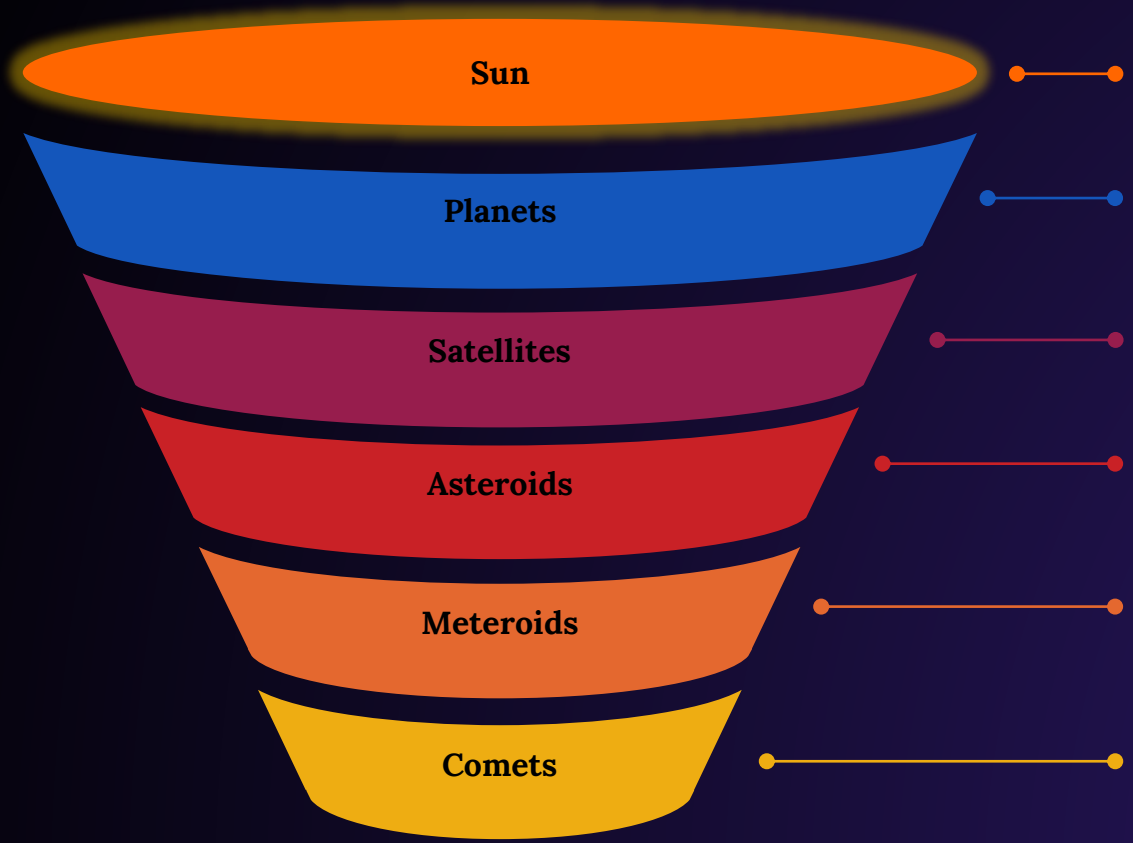
# Summary

- ✓ Saturn has highest number of satellites and Mercury, Venus have no satellites.
- ✓ Asteroids are the irregular shaped rocks between Mars and Jupiter.
- ✓ A cluster of stars is called galaxy.
- ✓ Millions of galaxies that make the Universe.


Universe
Austrinomical Objects
Space
Galaxies
Milky way
Solar System
Earth

# Summary

# Solar System




It is the head of Solar system.

There are 8 planets in our solar system.

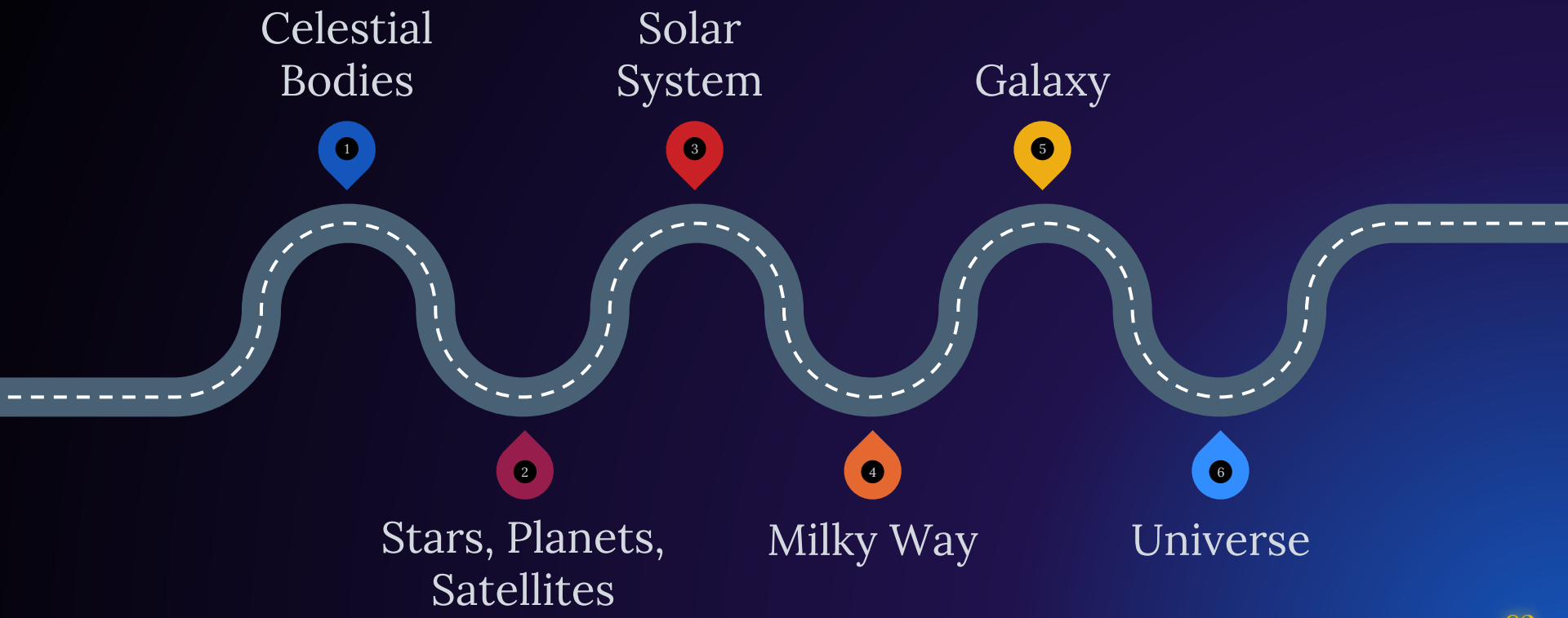
The celestial bodies move around the Sun.

Irregular shape rocks.

The rocky or metalic celestial bodies.

A celestial body made up of a head and a tail.

# Final Touch


Celestial Bodies
1
Stars, Planets, Satellites
2
Solar System
3
Milky Way
4
Galaxy
5
Universe
6

## Glossary

**Galaxy** (నక్షత్ర మండలం) : the cluster of Stars

**Asteroids** (గ్రహ శకలాలు) : irregular shaped rocks between Mars and Jupiter

**Meteoroids** (ఉల్కలు) : small rocky or metallic bodies in outer space

**Satellites** (ఉపగ్రహాలు) : celestial bodies that move around the Planets

**Orbit** (కక్ష్య) : the path in which the Planets move around the Sun

**Geoid** (భూమి వంటి ఆకారం) : Earth like shape

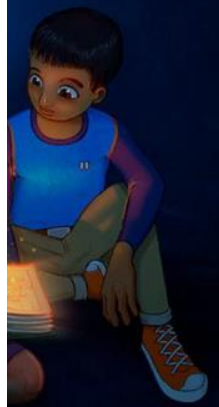
**Lithosphere** (శిలావరణం) : outer rocky layer on the Earth

**Hydrosphere** (జలావరణం) : water layer on the Earth

**Atmosphere** (వాతావరణం) : layer of gases above the Earth

**Biosphere** (జీవా వరణం) : layer of life on the Earth

**Constellation** (నక్షత్రాల కూటమి లేదా రాశి) : patterns of Stars



## Choose the correct answer

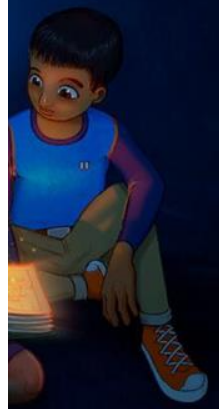
1. **Though tremendous heat is emitted by the Sun, why do we receive only limited heat?** [ **A** ]
   A) The sun is very far from the Earth
   B) The sun is very small compared to the Earth
   C) The sun is very close to the Earth

2. **The planet known as the Earth's twin is _____** [ **C** ]
   A) Jupiter B) Saturn C) Venus

3. **Which is the third nearest planet to the Sun ?** [ **B** ]
   A) Venus B) Earth C) Mercury

4. **All the Planets move around the Sun in a _____** [ **C** ]
   A) Circular path B) Rectangular path C) Elongated path

5. **Asteroids are found in between the orbits of _____** [ **B** ]
   A) Saturn and Jupiter
   B) Mars and Jupiter
   C) Earth and Mars



## Match the following

| | | | |
|---|---|---|---|
| 1. Blue Planet | [ | d | ] a. Mars |
| 2. Farthest Planet to Sun | [ | b | ] b. Neptune |
| 3. Fourth Planet from Sun | [ | a | ] c. Mercury |
| 4. Nearest Planet to Sun | [ | c | ] d. Earth |

## Let's Do

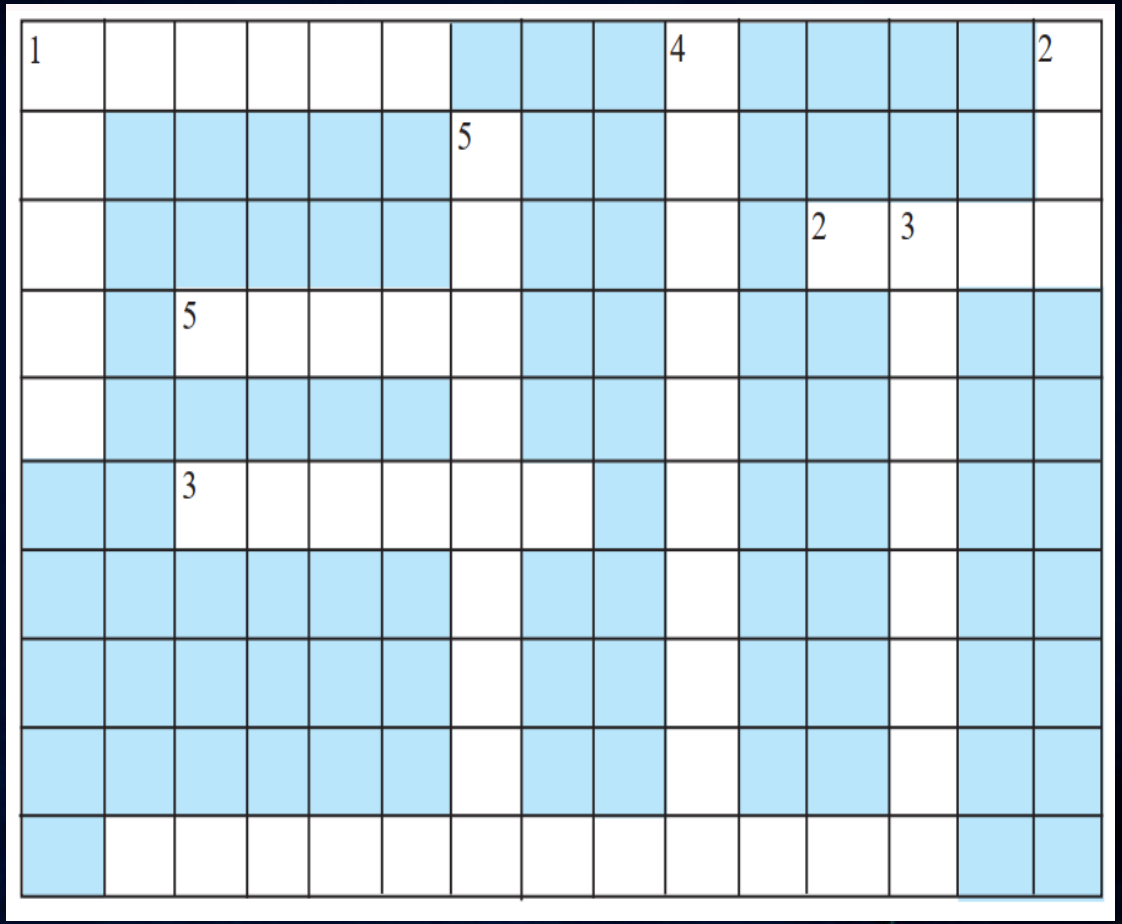
Solve the puzzle with the terms defined in the following statements

**CROSS**

1. The cluster of millions of Stars
2. The natural satellite of the Earth
3. The ringed planet (see figure 1.4)
4. The sphere of water
5. The celestial object that is made up of head and tail

**DOWN**

1. The shape of the Earth
2. The closest Star to the Earth
3. The path of the Planets that move around the Sun
4. The sphere of gases that surrounds the Earth
5. The small pieces of celestial bodies, move around the Sun between Mars and Jupiter.



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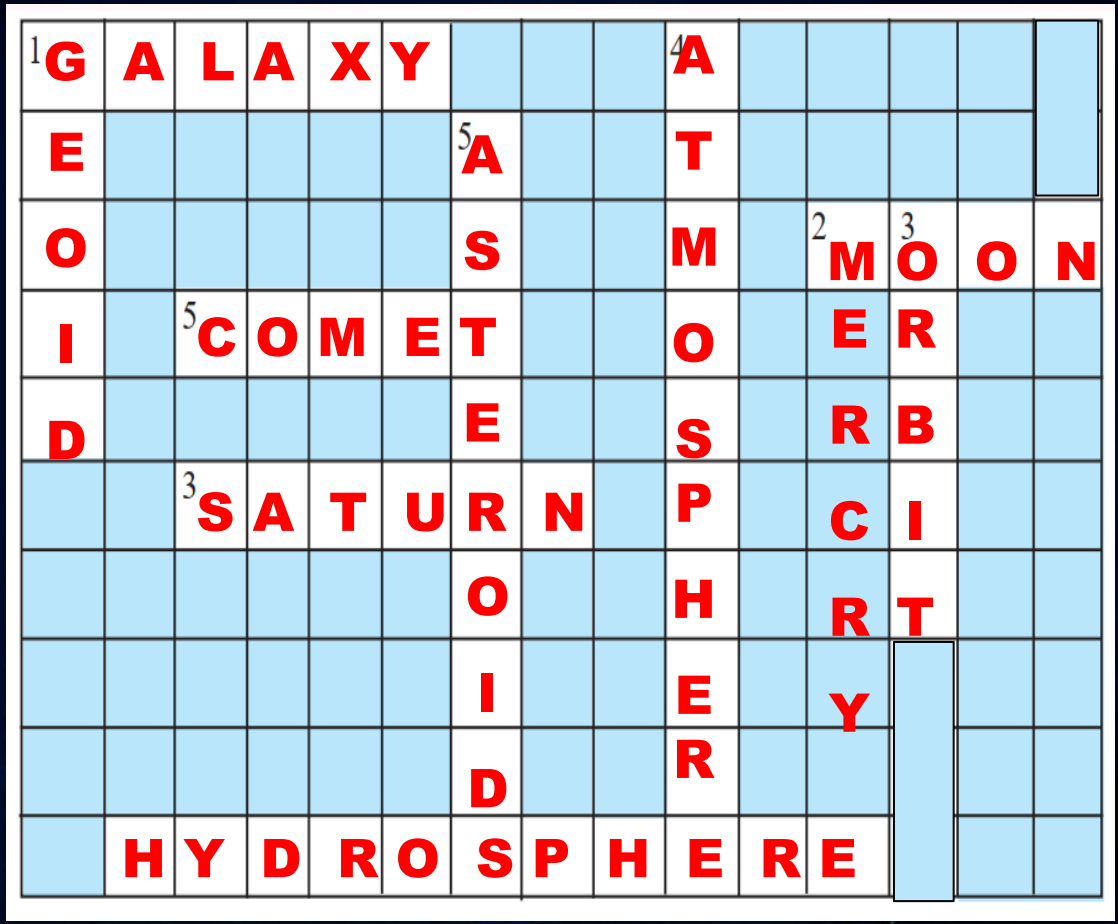

## Let's Do

1. You might have heard that people make human chains and run for world peace etc. You can also make a Solar system and run for fun by using the following steps.

**Step – 1:** All children of your class can play this game. Assemble in a big hall or on a playground.

**Step – 2:** Now draw eight circles on the ground. Draw all circles in the same manner.

**Step – 3:** Prepare 10 placards. Name them as Sun., Moon, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.

**Step – 4:** Select 10 children in the following order and give each one of them a placard.

**Order of placard distribution**

- ✓ The Sun – tallest, The Moon – smallest; Mercury, Mars, Venus and Earth (almost equal heights); Neptune, Uranus, Saturn and Jupiter taller than the earlier four Planets but smaller than the Sun.
- ✓ Now ask the children holding placards to take their places with the Sun in the centre in their orbits. Ask the child holding the Moon placard to keep the hand of the child holding the Earth placard always.
- ✓ Now your Solar system is almost ready to go into action.
- ✓ Now make everybody move slowly in the anti-clockwise direction. Your class has turned into a small human replica of the Solar system.
- ✓ While moving on your orbit you can also turn around. For every celestial body the spin should be anti-clock wise except for Venus and Uranus who will make the spin in the clock-wise direction

## Project Work

1. Prepare a model of the Solar system.

### Field Visit

1. Observe the video of Planetorium in the QR Code. Describe your experiences.
2. Visit SHAR which is located in SPSR Nellore Distirct.

F5R4T9

# Assessment - I

1. What are celestial bodies?
2. What is meant by constellation?
3. What is meant by solar system?
4. How stars are differ from planets?
5. How many planets are there? What are they?
6. What is galaxy?
7. Why the Earth is called a special planet?

# Assessment -2

1. Which is the smallest planet?
2. Which planet is called as Earth's twin?
3. What is blue plant?
4. The Earth takes _____ time for one rotation.
5. The Earth takes _____ time for one revolution.
6. Which is largest planet?
7. Which is the nearest planet to the sun?

# Assessment -2

8. Which is the farthest planet from the sun?

9. Asteroids find between _____ and _____ planets.

10. The celestial body made up with head and tail ____

11. Natural satellite to the Earth ___

12. Rocky layer of the Earth ____

13. The distance between the Earth and moon ___

14. Second largest planet ___

15. Shape of the Earth _____

Created by:

# Rambabu Sunkari

SA(SS),

ZPHS, GARUDABILLI

Vizianagaram Dt

www digitalsocialteacher.in

State Technical Committee President
APSSTF

# Special Thanks to AP - SCERT

*From*


*Rambabu Sunkari*

**SA(SS),**

**ZPHS, GARUDABILLI**

**Vizianagaram Dt**


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