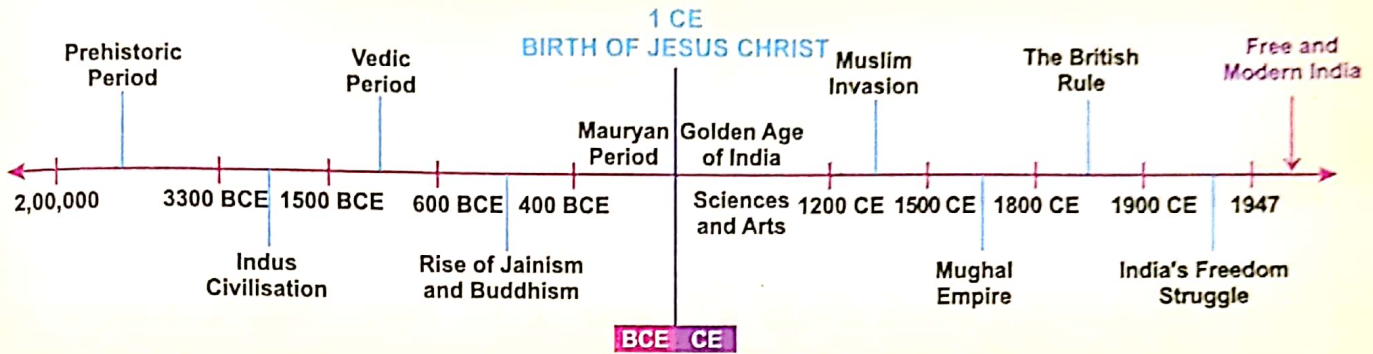


Chronology



WHAT IS HISTORY?

History may be defined as a careful, systematic record of past events, such as records of the royal dynasties and the way of life of the common people arranged in a chronological way. Take the example of your family album. It has photographs of your ancestors. Some past events, such as birthday parties, marriage ceremony of your elder brother, etc, arranged in such a way, that events that happened first, are pasted in the beginning followed by the ones that happened later. Your album photographs give you information about the dress, culture and traditions of your family. Thus, the album actually displays your family history.

A person who studies the source material, analyses and records the events is called a **Historian**. The source material may be divided into two categories— Archaeological and Literary.

ARCHAEOLOGICAL SOURCE MATERIAL

The archaeological source material are generally discovered through survey and excavations (digging of the earth). The remains thus found can



Fig. 1.1 An archaeological excavation in progress

be dated after going through a complicated technique. These remains include tools, weapons, articles of daily use, i.e. pottery, coins, inscriptions, copper plates, clay tablets, i.e. seals and sealings, manuscripts, etc.

Coins

The study of coins is known as **Numismatics**. The coins throw light on ancient times. The language engraved on them reveal the exact period to which they belong. The coins of Greek kings have



Fig. 1.2 Kanishka's coins

been found in the North-West regions of India as some states came up in this region after the invasion of Alexander the Great in 326 BCE. Similarly in South India, coins of Roman kings have been found indicating trade relations between India and Rome. Kanishka the Great issued gold coins of the same weight as that of the Romans to avoid trouble in exchange in trade.

Edicts and inscriptions

The writings engraved on stones, rocks, pillars, metal plates, clay tablets, etc, are called inscriptions. The study of inscriptions is called Epigraphy. Several edicts of emperor Ashoka the Great give us a lot of information about his achievements and socio-economic life of the



Fig. 1.3 Hathigumpha inscription of Kharavela

Trivia

Numismatic Society of India was founded on 28th December 1910 at Allahabad by a group of six persons. In 1923 State Museum, Lucknow became the office of the Society. In 1933-34, the office shifted to Mumbai at the Prince of Wales Museum. In 1957, the office of the Society shifted to Varanasi in the building of the College of Indology (Now Department of Ancient Indian History & Archaeology, Banaras Hindu University). The Society built its own building in 1966.

people of his times. Similarly, Junagarh rock inscriptions of King Rudradaman and Hathigumpha inscription of Kharavela, of Kalinga ruler provide authentic information about these times.

Artefacts

Artefacts are works of art including sculptures and paintings. This is source material of cultural history as it helps us in reconstructing the cultural life of the ancient people. The sculptures of Sanchi Stupa provide us different aspects of human life as they inform us about the lifestyles of rulers, priests, merchants and musicians, etc. The specimens found at Taxila that belonged to the



Fig. 1.4 Gandhara art



Bhimbetka caves of Madhya Pradesh, located 46 km south of Bhopal, are the largest treasure house of prehistoric art in the country. There are enchanting rock paintings that date back to the Palaeolithic, Mesolithic and Neolithic periods adorning these caves. These paintings show striking similarity to the Aboriginal rock paintings of the Savanna regions of Australia, the paintings done by Pygmies of the Kalahari Desert and the Palaeolithic Lascaux cave paintings of France.

period of Kanishka the Great throw light on the Gandhara art and religious beliefs of the Kushana kings. The images and paintings of the Gupta period still preserved in the Ellora Caves and Murals of Ajanta display articles of daily use, jewellery, hairstyles, etc. They also yield information about the religious beliefs of the people.

LITERARY SOURCE MATERIAL

Thousands of years ago, when there was no paper to write on, our ancestors wrote on the dried 'Bhojpatras', the bark of the trees. As there was no printing press, the accounts were written by hand. These hand written accounts are called **Manuscripts**. Literary sources include two kinds of literature— Religious literature and Secular literature.

Religious literature

The religious literature of India includes the Brahmanical literature, Buddhist and Jain sacred texts and epics.

The earliest beliefs of Vedic religion were grouped in four Vedas, namely— Rigveda, Yajurveda, Samaveda and Atharvaveda. The Rigveda is the oldest work among the Brahmanical literature. It



Fig. 1.5 Lord Buddha

throws light on the religious, social and economic life of the early Aryans. The later Vedas and Samhitas provide information on the life of post Vedic Aryans. The Smritis composed during Gupta age give us valuable information about this period.

Among the Epics, Ramayana was written by Maharishi Valmiki and Mahabharata by Maharishi Ved Vyas. Both convey that truth prevails over evil and they have great religious importance for the Hindus. "Bhagavad Gita" which is a part of Mahabharata is a philosophical text that sets out the importance of selflessness, duty and devotion to work, spirituality, meditation, etc.

Among Buddhist literature, the holy books are Pitakas and Mahadhammapada. They contain the Views of Buddha, rules of the Buddhist Sangha and the Buddhist philosophy. The stories of previous incarnations of Lord Buddha are compiled in Jatakas. The Milind Panho presents a philosophical dialogue between Menander, the Greek king and Nagasena, the Buddhist monk. These texts provide us a lot of information on the social and cultural life of Ancient India.

Most of the Jain literature is composed in Prakrit language which is also known as **Ardha Magadhi**. The **Angas** of the Jains elucidate the contemporary society and the political and economic conditions of the time.

Secular literature

It is not connected with any religion or faith. One may say that this form of literature is created by the people and for the people. It is in the form of prose, poetry, novel, play, history, grammar, etc, and travelogues which are accounts of foreigners.

In Ancient period during the Maurya age, Kautilya wrote Arthashastra which is a treatise on political science and statecraft. Other important works of this period include *Mudrarakshasa* by Vishakhadatta, *Kathasarit Sagara* by Somadeva and *Brihat Kathamanjari* by Kshemendra. The grammatical works like Panini's *Ashtadhyayi* and

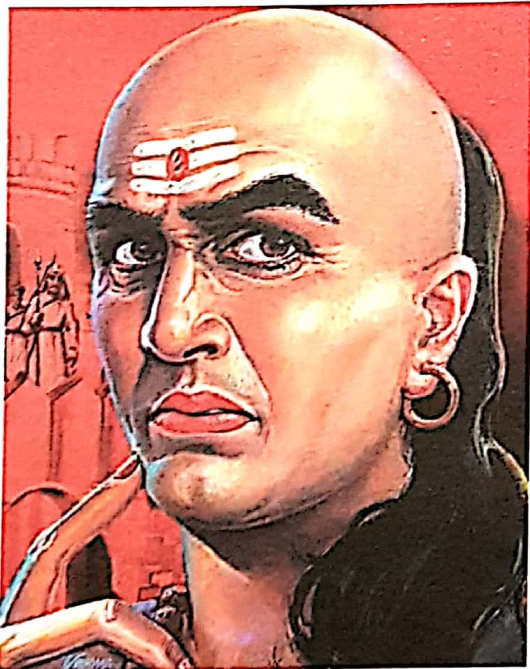


Fig. 1.6 Kautilya

Patanjali's *Mahabhasya* contain valuable historic information of that period. *Ashtadhyayi* deals with early grammar of Sanskrit.

In fifth century CE, during Gupta period, Kalidasa wrote *Abhijnanasakuntalam* which is regarded as one of the best example of love play between King Dushyanta and Shakuntala. Charaka and Sushruta wrote *Samhitas* which deal with medicinal aspects known as *Ayurveda*.

Kadambari, written by Banabhatta in 7th century CE, is regarded as the first novel in Sanskrit and his work *Harshacharita* is the first historical account of early period of King Harshavardhan. *Vikramadeva Charita* by Bilhana describes the achievements of King Vikramaditya, the later Chalukya king. Harshavardhan himself wrote plays like *Nagananda* and *Ratnavali* which throw light on the conditions of India during his rule.

Kalhana's *Rajtarangini* traces the history of Kashmir. *Rajtarangini* literally means 'streams of kings'. It was the first historical work till twelfth century.



Fig. 1.7 King Harshavardhan

FOREIGNERS' ACCOUNTS

A great deal of our knowledge of Ancient Indian History comes from travelogues or accounts of foreign travellers. Megasthenes, the Greek ambassador who lived in the court of Chandragupta Maurya wrote *Indica*, an account of India. Ptolemy's *Geography of India* is another important work. At a later period, Chinese

travellers visited India to collect religious books and visit the holy places of Buddhism. Some of them like Fa-Hien, Hiuen-Tsang, I-Tsing have recorded valuable accounts of contemporary India.

INTRODUCTION OF INDIAN HISTORY

Indian history is divided into two phases:
(a) Prehistoric (b) Historic.

The prehistoric man left no written records but they have left their remains. The Archaeologists have unearthed many sites in India of Stone Age, which has been divided into three periods—Palaeolithic (old), Mesolithic (middle) and Neolithic (new). The earliest traces of human activity go back to 100,000 BCE. Thus, 99% of the Indian history comprises of prehistoric period.

With the dawn of civilisation, language and script evolved. Now, history is recorded or printed. But when printing was not known, it was written by hand on paper. Before the use of paper, records were written on dried palm leaves and the birch tree barks. Copper plates as well as stone inscriptions were also used. Emperor Ashoka the Great engraved his ideas and beliefs on various matters, i.e. religion, social norms and administrative reforms, etc.

The languages spoken were Sanskrit, Pali and Prakrit in ancient India and the script was Brahmi as well as Kharoshthi.

In the inscription of 3rd century BCE, two types of Brahmi, i.e. the Northern and the Southern, may be distinguished in writing. From the northern script, Devanagari along with regional scripts like Gujarati, Marathi, Punjabi script developed, while the southern variety of the Brahmi led to five types of scripts, all now used in south India.



Fig. 1.8 Emperor Ashoka

EXPLORERS OF THE WORLD

Do you know how new ideas, religion, traditions, knowledge, etc, travelled distant lands in ancient time? The ideas travelled with the merchants, marched with the army, and were spread by preachers who promoted their faith. This brought people closer to each other and gave better understanding about each other. Yet some, driven by a spirit of adventure, travelled and discovered new places. Marco Polo (1254-1324) was the first European to visit China and encouraged the idea of trading with the East.

Christopher Columbus (1451-1506) sailed from Palos, Spain and discovered islands of West Indies and reached North and South America.

Vasco da Gama (1460-1524), the Portuguese navigator, discovered the sea route to India. All these adventurous discoveries had great economic and political impact in future.

INDIA—THE LAND OF UNITY IN DIVERSITY

After independence, many provinces have been reorganised and some new states have come up on the basis of linguistic and cultural similarity of the people of the area, so that regional language



Fig. 1.9 Marco Polo



Fig. 1.10 Christopher Columbus



Fig. 1.11 Vasco da Gama

may flourish and administrative work may be done in the mother language. It is said that India presented a picture of unity in diversity. Actually in ancient time, Greeks, Parthians, Shakas, Kushanas and Hunas invaded India but after sometime they were absorbed in the Indian culture. Greeks were identified as Indo-Greek, Kushana and most of foreign invaders adopted Indian religion. The fusion between their culture and indigenous Indian culture resulted in enrichment of the society and encouraged trade contacts of India with the outside world.

NAMES OF THE COUNTRY

'India' and 'Bharat' are the two names that we often use for our country. The name 'Bharat' has been given by Aryans. Scholars say that in ancient India, the name of river 'Indus' was given by 'Aryans' as 'Sindhu'. The Greeks and Persians who came in contact with our flourishing rich civilisation, called the land after 'Sindhu' as 'Hindos' or 'Indos'. Greeks first used and popularised the name 'India' in ancient world. Probably, it was due to their phonetic pronunciation problem. The first article of the Constitution says, "India that is Bharat". This means both names are synonymous. India is the only country to have an ocean named after it. In Arabic and Persian literature, an alternative name 'Hindustan' is also used. It is still in common use during conversation and in Hindi and Urdu poetry.

UNDERSTANDING A HISTORICAL DATE

Mani asked his mother why CE or BCE is written after historical dates? What do they mean? His mother said that to find out the date of an event, we mention BCE or CE. They are abbreviations. BCE means 'Before Christian Era' and CE means 'Christian Era'. The year of birth of Christ is regarded as the zero point; the later years are counted as CE. That is why, CE counting moves forward and BCE is counted backwards.

BCE ← 0 → CE

DATE LINE

326 BCE Alexander the Great invaded India.

1254-1324 CE Marco Polo visited China.

1460-1524 CE Vasco da Gama discovered sea route to India.

EXPLANATORY WORDS

1. **Numismatics**- Study of coins.
2. **Inscription**- Writings engraved on stones, rocks, pillars, etc.
3. **Epigraphy**- Study of inscriptions.
4. **Edict**- An official statement given by somebody in an authoritative position.
5. **Artefacts**- Work of arts.
6. **Manuscript**- A very old book that was written by hand, a copy of book before it is printed.
7. **Epic**- A long poem or a book in long poetic form describing life and actions of great men/women.
8. **Elucidate**- To explain clearly in detail.
9. **Phonetic**- Connected with the sounds of speech of any language.

CHAPTER REVIEW

1. Coins of Greek kings were found in North-west regions of India while coins of Roman kings were found in South India.
2. Junagarh rock inscriptions are of king Rudradaman and that of Hathigumpha belong to Kalinga rulers.
3. Bark of trees, on which our ancestors wrote, was called 'Bhojpatra'.
4. We have four Vedas, namely- Rigveda, Yajurveda, Atharvaveda and Samaveda.
5. Pitakas and Mahadhammapada are holy books of Buddhists.
6. The languages spoken in ancient India were Sanskrit, Pali and Prakrit, and the scripts were Brahmi and Kharoshthi.
7. Stone Age has been divided into three periods- Palaeolithic, Mesolithic and Neolithic.

EXERCISES

1. **Answer the following questions in brief:**
 - a. What are edicts and inscriptions?
 - b. What type of information the coins provide?
 - c. What is a manuscript?
 - d. What is secular literature?
 - e. What is archaeology?
 - f. Who is a historian?

2. Answer the following questions in detail:

- What are artefacts? What is their importance in understanding man's past?
- What are literary sources? Write a note on religious literature.
- Write a note on the secular literature of the Ancient period.
- What do you understand by BCE and CE? Give an example to show how we calculate the number of years between a date in BCE and CE?

3. Choose the best alternative for your answer.

- The oldest work of Brahmanical literature is—
i. Samaveda ii. Rigveda iii. Yajurveda
- Who among the following wrote books on Ayurveda?
i. Charak ii. Panini iii. Somdevaou
- Which of the following is not a period of Stone Age?
i. Mesolithic ii. Neolithic iii. Pseudolithic
- Who discovered the sea route to India?
i. Columbus ii. Vasco da Gama iii. Marco Polo
- Which of these is not a spoken language?
i. Sanskrit ii. Brahmi iii. Pali
- Which of the following books deals with the history of Kashmir?
i. Rajtarangini ii. Ratnavali iii. Nagananda

4. Fill in the blanks.

- The period of man's past for which we have no written records is called _____.
- The study of coins is called _____.
- Secular literature is not connected with _____.
- Literary sources of history include _____ and _____ literature.
- Our ancestors wrote on dried _____, the bark of the trees.
- The archaeological source materials are discovered through _____ and _____.

5. Write True or False for the following statements:

- The study of inscriptions is called archaeology. _____
- I-Tsing was a Chinese pilgrim. _____
- Arthashastra by Kautilya is a Sanskrit drama. _____
- Sanchi Stupa is an example of a monument. _____
- The Angas were the religious literature of Buddhism. _____

1 OUR EARTH IN THE SOLAR SYSTEM

The sky on a cloudless clear night is a feast to the eyes as we feel surrounded by hundreds of shining celestial bodies. They are also called heavenly bodies as we associate them with heaven. Most of these appear to twinkle and we call them stars. You will also be able to see a few points of light which do not appear to twinkle. These could be planets. The planets, the Sun and moons constitute our solar system.

The Sun, moon, earth, stars, planets as well as dust and gases are found in a large vacuum called **Space**. Space is vast and limitless and is also called the **Universe**. It contains millions of stars and other celestial bodies. Let us examine these celestial bodies more closely.

STARS

Stars are very big and hot and are made up of gases. They have their own heat and light which they emit in large amounts. They are similar to Sun but we do not feel their heat or light and they look so small because they are too far away from us. There are millions of stars in space but the closest star to the Earth is the Sun. Stars are

found in groups or clusters called **Galaxies**. Galaxies are big groups of millions or trillions of stars. There are many galaxies in our universe. The galaxy in which our solar system is located is called the **Milky Way** or **Akash Ganga**. It is



Fig. 1.1 Milky Way

estimated to contain about 1,00,000 million stars. Our Sun is an ordinary medium sized star. It looks bigger than others because it is closer to us than any other star. The star nearest to the Sun is **Proxima Centauri**. The distance between the Earth and Proxima Centauri is more than 40 trillion km.

Trivia



Nuclear fusion is how stars produce their light, heat, and energy. Through this process, they "burn" a fuel known as hydrogen. The result is that they create another type of matter known as helium. However, stars do not burn in the same way that a fire does, because stars are not on fire.

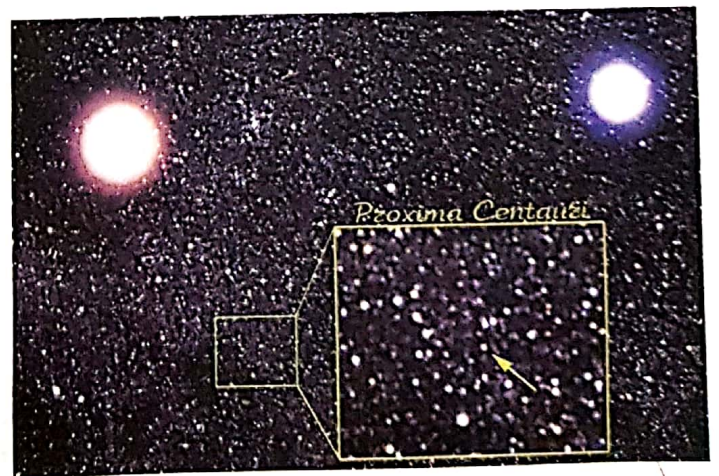


Fig. 1.2 Proxima Centauri

CONSTELLATION

A constellation is a group of stars forming a certain shape. The best example of a constellation seen in the sky is **Ursa Major** or the **Great Bear**. It is also known as '**Saptarishi**' as it is

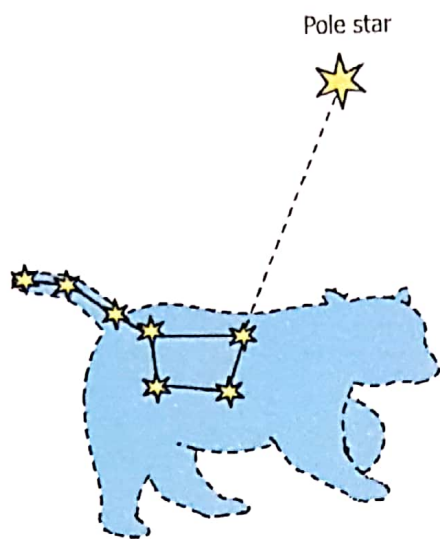


Fig. 1.3 Ursa Major or Great Bear

a group of seven stars arranged in a pattern of a bear. It is the most easily recognisable constellation. It helps us to locate pole star with

the help of two stars at the head of the Great Bear. These two stars are known as pointers because they indicate the pole star. In ancient times, navigators used to determine directions during the night with the help of pole star as it remains in the same position in the sky. Astronomers today recognise 88 constellations.

THE SOLAR SYSTEM

Our solar system has major and minor heavenly bodies called planets, satellites, asteroids and smaller bodies called **meteors** and **comets** revolving round the Sun. Sun can be regarded as the head of the family as it is at the centre of the solar system. It is made up of extremely hot gases emitting radiant energy which is spread in all directions. The distance between the Earth and the Sun is about 150 million km. The distances in space are measured in light years. The distance covered by light in one year is called a **Light Year**. You may be surprised to know that it takes about 8 minutes for Sunlight to reach the Earth.

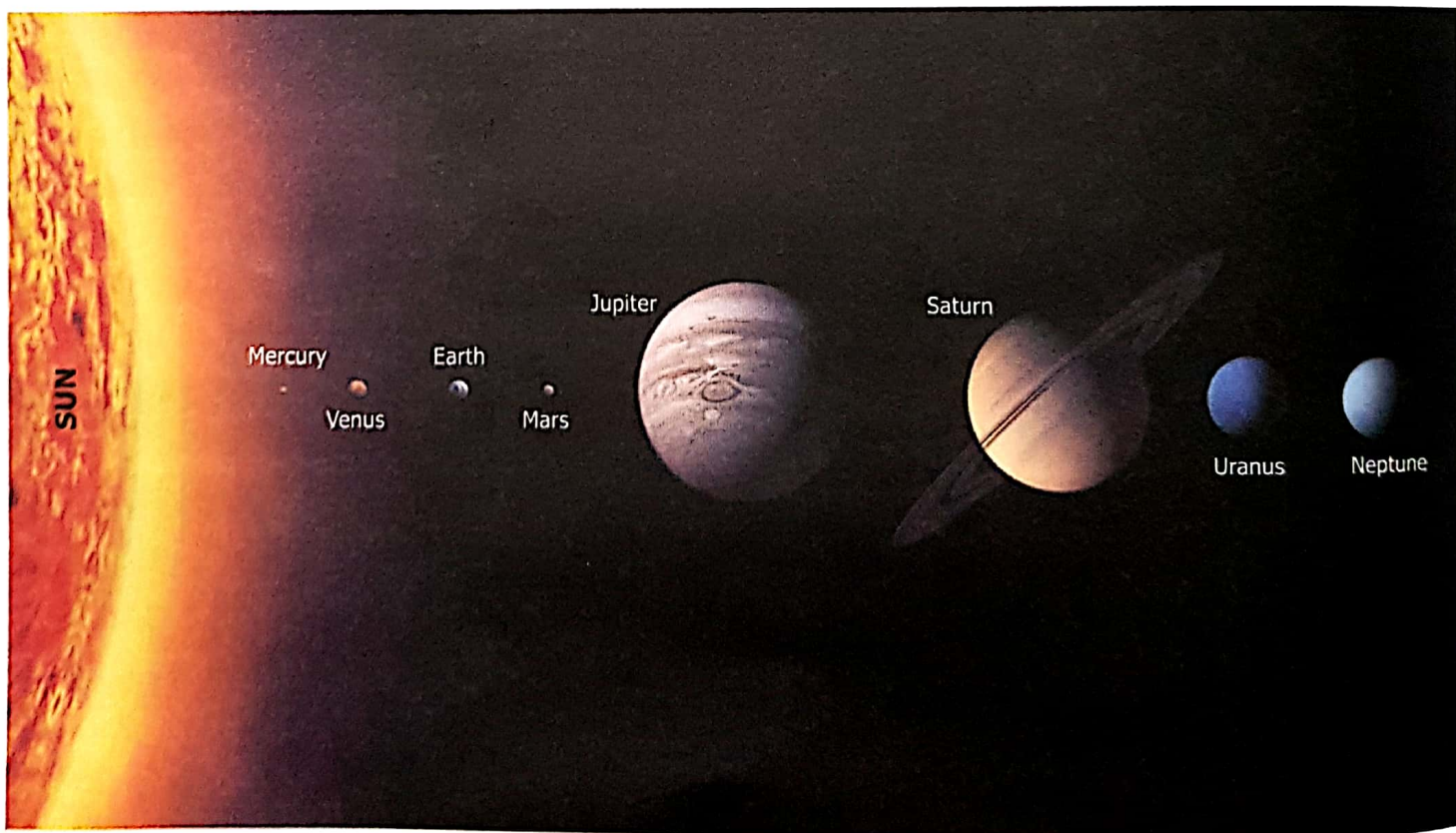


Fig. 1.4 Solar System

PLANETS

The word planet is derived from the Greek word Planet meaning Wanderer. A planet is that heavenly body which moves around the Sun in an elliptical orbit and at the same time rotates on its own axis. It looks like a star but it has no heat and light of its own. It shines merely by reflecting the light of the Sun. The simplest method of identifying planets from stars is that stars twinkle whereas planets do not. All planets are spherical in shape but their composition and size is different. In order of distance from the Sun, they are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

Mercury (Budh)

It is closest to the Sun and takes 88 days to go round the Sun on its orbit. Life is not possible on this planet as there is no water and atmosphere around this planet.

Venus (Shukra)

It is the second planet from the Sun and closest to the Earth. It is the brightest planet in the solar system. Its size is almost the same as that of Earth.

Earth (Prithvi)

It is the third planet from the Sun and the only planet to have life on it. It revolves around the Sun and also rotates on its axis causing day and night.

Mars (Mangal)

It is red in colour and hence called Red planet. It has a large amount of water as ice in forms of polar caps. It is believed that there is some possibility of plant life on this planet.

Jupiter (Brihaspati)

This is the largest planet of the solar system. It is so large that around 1300 Earths can be placed

Trivia



The Sun makes up 99.86% of the Solar System's mass! That means that all the planets put together (including Jupiter) as well as all the asteroids only make up about 0.14% of the Solar System's mass.

inside it. Its surface is cold and is made up of several gases like hydrogen, helium and methane.

Saturn (Shani)

It is a unique planet because it has three beautiful rings around it, possibly made of ice. It has very low temperature. It is least dense among all the planets.

Uranus

It appears green on being viewed through a telescope and hence also called Green planet. It is very far away from the Sun and there is no possibility of life on it.

Neptune

It is slightly smaller than the Uranus but is a lifeless cold desert. It is farthest from the Sun at a distance of about 4469 million km.

MOTIONS OF THE PLANETS

All planets exhibit two types of motions—Revolution and Rotation.

Revolution

According to the heliocentric theory, all the planets revolve around the Sun in the same direction. However, the period of revolution is different for each planet. Each planet moves round the Sun in an elliptical path called Orbit. Since, Mercury is closest to the Sun, it has the shortest orbit. The gravitational pull of the Sun keeps the planets orbiting in a fixed path.

Rotation

Each planet also rotates or spins on its own axis. The Earth's axis is the imaginary line joining the North pole and South pole through the centre of the Earth. Except for the Uranus and the Venus, all other planets rotate from west to east. The Earth completes a rotation in about 23 hours and 56 minutes.

SATELLITES

Satellites are small heavenly bodies which revolve around the planets. As the planets revolve around the Sun, the satellites move with them. As a result, the satellites also revolve around the Sun. Like planets, satellites shine by reflecting light from the Sun. All planets, except Mercury and Venus, have satellites. The Earth has only one satellite called the **Moon**. Jupiter's satellite, known as **Ganymede**, is the largest.

The Moon

The moon is the largest and brightest object in the night sky. It is the only natural satellite of the Earth. It shines because its light coloured surface

reflects sunlight. As the moon revolves around the Earth, its shape seems to change every night. We see varying amount of its sunlit part, called **Phases of the Moon**. You can see the full moon only once in about a month's time. It is full moon night or 'Poornima'. After fifteen days time you can watch the night sky best, provided it is a clear cloudless night. This is called **New moon night** or **Amavasya**.

The moon has no atmosphere. There are many mountains, plains and circular depressions called **Craters** on the surface of the moon. We only find rocks and dust on the moon. During the day, its temperature is about 100°C which falls to -15°C at night.

Man has always been fascinated by moon. Space explorations in recent years have brought to light many facts about moon. In 1969, man's dream of going to the moon came true as American astronaut Neil Armstrong became the first man to walk on the moon. He brought back to Earth some samples of lunar rock which suggest that moon has a dead surface.

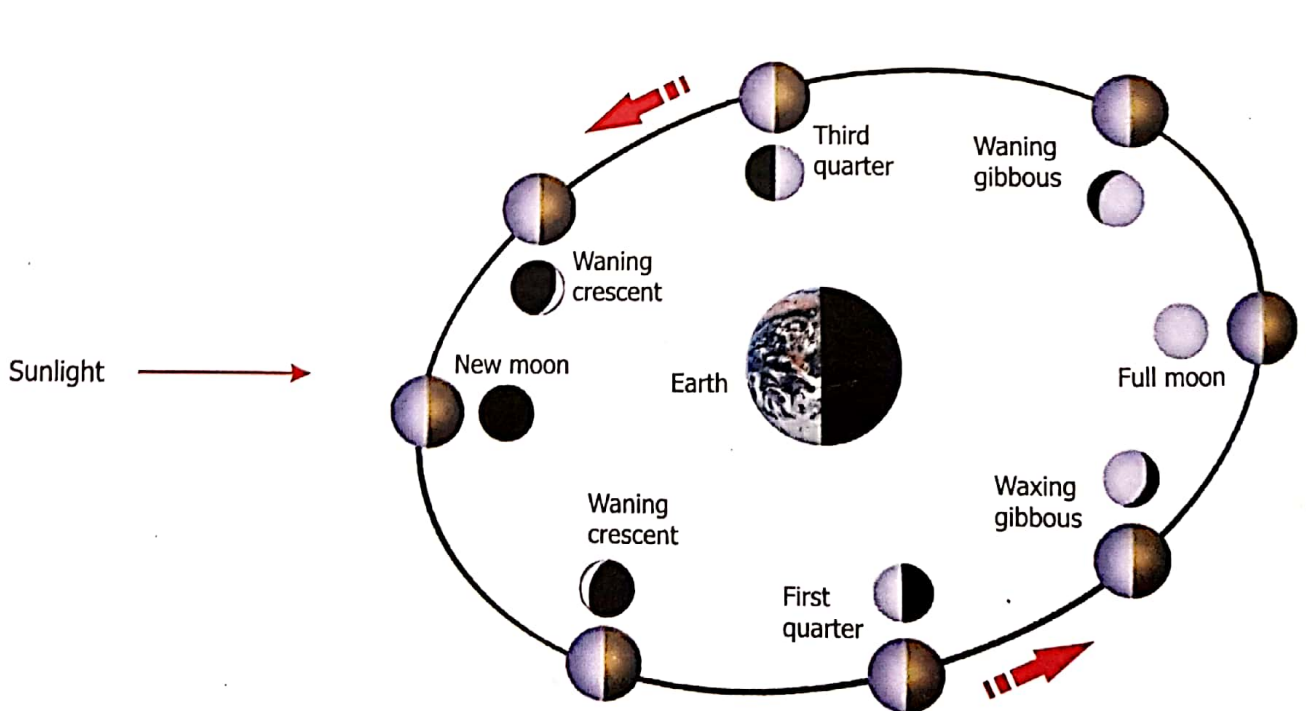


Fig. 1.5 Phases of Moon

OTHER CELESTIAL BODIES

Meteoroids

They are shooting stars that crash into Earth's atmosphere. They move about in the space and go around the Sun. When they come near the Earth's atmosphere, as a result of friction, they begin to glow and are called as **Meteors**. When such shooting stars are still in the solar system, but would enter the Earth's atmosphere, they are called as **Meteoroids**. After entering the Earth's atmosphere, they may partly burn up and the fragments that reach the ground are known as **Meteorites**.

Asteroids

Between Mars and Jupiter lies a belt of small bodies called **asteroids**. The largest of these tiny planets is **Ceres**. Many scientists and astronomers believe that asteroids are fragments of a planet which exploded long time ago.

Comets

Comets are glowing objects made up of ice and dust with long tails which we sometime see streaking across the night sky. Comets spend most of the time in the far reaches of the solar system. They form a tail and start to glow when they come near the Sun. Since they follow a long path around the Sun, they take years to complete their orbit. The most famous, **Halley's comet** appears after every 76 years. It is named after British scientist Edmond Halley who first discovered it. It was last seen in the year 1986.

Dwarf Planet

It is a spherical heavenly body, much smaller than a planet, which orbits the Sun. It differs from satellites as it has its own gravitational field to orbit the Sun independently. Since its discovery in 1930, Pluto was considered to be a planet. But in

the year 2006, the International Astronomical Union (IAU) adopted a new definition of planet in which Pluto does not fit. It is now reclassified as a "Dwarf Planet". Ceres and Eris are two other dwarf planets apart from Pluto.



Fig. 1.6 A comet

EARTH – A UNIQUE PLANET

Earth is the third planet from the Sun and is the fifth largest planet. It is also called the **Blue Planet** as it reflects a mixture of blue and green light, blue because of oceans and green because of vegetation. The shape of our Earth is like a sphere. It bulges at the equator and flattens at the poles. This shape is also unique and the Greek called it **Geoid** or Earth like shape. The Earth is at an optimum distance from the Sun. This is the reason why Earth is neither too hot nor too cold. The mean surface temperature is 14°C.



Fig. 1.7 Earth

Earth is the only planet in the universe which supports life. This is because the conditions to support life exist on Earth. These conditions are—availability of water, suitable temperature, breathable atmosphere due to the presence of life supporting gas, oxygen.

Breathable Atmosphere

Living beings need oxygen to breathe in which is present on the Earth. Plants need carbon dioxide for preparing their food through photosynthesis which is also present on the Earth. Moreover, the presence of ozone in the Earth atmosphere

protects plants and animals from harmful ultraviolet rays of the Sun.

Water

The Earth is the only planet where liquid water is found. Water is also found on other planets but only in frozen form.

Moderate Temperature

The Earth has an average temperature of 22°C which is suitable for the survival of plants and animals for survival. The other planets are either too hot or too cold.

EXPLANATORY WORDS

1. **Celestial-** Pertaining to sky, heaven.
2. **Galaxy-** Group of a very large number of stars.
3. **Milky Way-** The galaxy in which our solar system is located.
4. **Constellation-** A group of stars that form a shape and usually has a name.
5. **Light Year-** The unit for measuring distances in space.
6. **Elliptical-** Oval.
7. **Planet-** The heavenly body that revolves around the Sun.
8. **Orbit-** The elliptical path of a planet on which it revolves round the Earth.
9. **Heliocentric-** The astronomical theory according to which planets revolve around the Sun.
10. **Satellite-** Small heavenly bodies that revolve around the planets.
11. **Ganymede-** Name of a satellite of the Jupiter.
12. **Meteoroid-** The shooting stars in solar system.
13. **Asteroid-** Small celestial bodies between Mars and Jupiter.
14. **Comets-** Shining heavenly bodies made of ice and dust with a long tail.
15. **Photosynthesis-** The process by which plants prepare their food in presence of certain essential elements.

CHAPTER REVIEW

1. 'Ursa Major' is a constellation of seven stars in the shape of a bear. It is also known as Great Bear.
2. Distance between the Earth and the Sun is about 150 million km.
3. Sunlight takes about 8 minutes to reach the Earth.

4. Distance covered by light in one year is called one light year.
5. Mars is also known as the Red planet while Uranus as the Green planet.
6. Earth completes one rotation on its axis in about 23 hours and 56 minutes.
7. Earth has only one satellite and that is moon.
8. Ceres is the largest asteroid.
9. Halley's comet appears after every 76 years.
10. Pluto, which was earlier considered to be one among the nine planets, has been reclassified as

EXERCISES

1. Answer the following questions in brief:

- a. What are constellations? Give an example.
- b. What are planets?
- c. Which is the largest planet and which planet is closest to the Earth?
- d. What is a solar system?
- e. What is a comet? Give an example.
- f. What is space?

2. Answer the following questions in detail:

- a. Why is Earth regarded as unique planet? Give three reasons.
- b. Write a note on the moon.
- c. Explain two motions of planets. Name the planets in order of their distance from the Sun.
- d. What are meteoroids? Explain in detail.

3. Choose the best alternatives for your answer.

- | | | |
|---|---------------------------------------|--|
| a. Which among the following is also known as Green planet? | | |
| i. Earth | <input type="checkbox"/> ii. Uranus | <input type="checkbox"/> iii. Jupiter |
| b. Halley's comet appears after every— | | |
| i. 76 years | <input type="checkbox"/> ii. 73 years | <input type="checkbox"/> iii. 70 years |
| c. The largest planet of solar system is— | | |
| i. Earth | <input type="checkbox"/> ii. Jupiter | <input type="checkbox"/> iii. Saturn |