SOCIAL SCIENCE

STANDARD SIX

TERM II

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HISTORY

1. THE VEDIC PERIOD

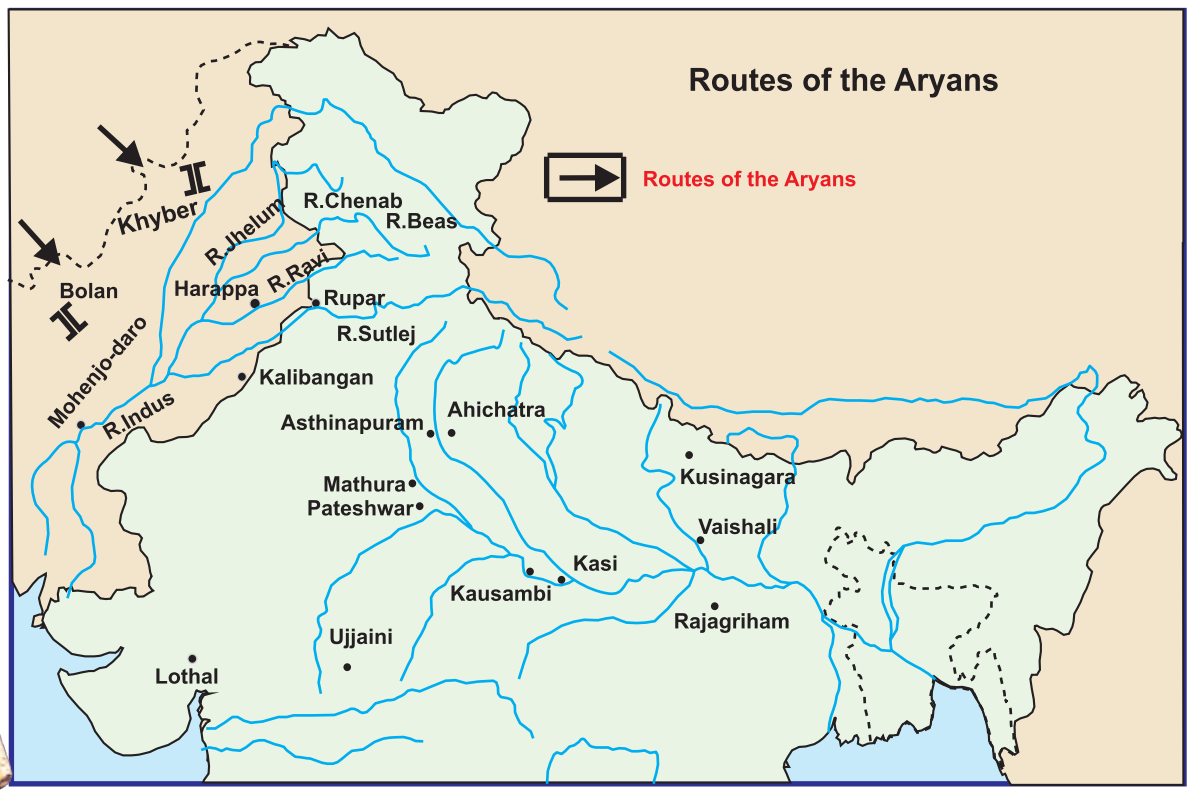
The Aryans migrated to India through the Khyber and Bolan passes from central Asia. Being shepherds, they moved in search of pastures for their cattle. They entered about 4000 years ago and settled in the entire north India.

The places where they settled in India was called Arya Vardham. Aryans made their livelihood by herding the cattle. They compiled the prayers of their ancestors as Vedas. In History, this was called the Vedic Age. The Vedic Age was classified into two. They were Early Vedic Age and Later Vedic Age.

Early Vedic Age or Age of Rig Veda: (BC 1500 – BC 1000)

When Rig Veda was compiled the Aryans lived in Sindu, which is now in Pakistan. They settled in Sabta Sindhu (The Land of Seven Rivers) in Punjab. We come to know through the Rig Veda, the political and social conditions of the Aryans.

The Social life of Aryans
Family →Village →Vis →Jana →Janapatha





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Political Life

The basic unit of the society was family. Many families joined and formed the village which was headed by the Grahmini. Many villages formed Visu. (Vis) Vishwapathy was the head of the Visu. The next higher administrative unit was Jana. The head of Jana was Rajan (King). The person who had valour and strength became the Rajan. The people lived in a kingdom were called Prajas. The king was called Prajapathi. Kingship became hereditary. Many chieftains formed the Mahajanapadas.

Find out:
Do you have a family name?
Ask and find out the family names of your neighbours.
Which God/Goddess do you worship?

The Raja (King) was assisted in his administration by officials called Prohit and Senai (Commander). There were two Assemblies called Saba and Samiti.

Saba – Group of Elders

Samiti – Representatives of People

Duties of Raja (King)

- He protected his lands from different clans.
- He conducted religious duties according to the advice of the prohits.
- He protected his people from poverty, war and enmity.
- During the war he led the people and fought with the enemies.
- Justice and punishments were given after trial.
- He extended and strengthened the kingdom.

Social Life

The father was the head of the family. In the beginning women were on a par with men in the fields of education and religion. There were women poets like Vishwawara, Abala, Kosa, and Lobamuthra. Caste system was not in existence. Monogamy and Polygamy were in practice. Widows' remarriage was permitted.

Economic Life

Cattle rearing and agriculture were the main occupations of the people during Rig Vedic Age. Iron was used to make tools and instruments. With the help of these tools they destroyed the forests and made them into cultivable lands. Carpentry and weaving were also their occupations.

They produced cotton and woollen clothes. Goldsmiths made ornaments and potters made pots for household use. Barter system was in practice. Rivers were used for transportation. Their unit of currency Nishka, was made of gold.

Mention the origin and growth of the following:

Carpentry, blacksmith, goldsmith, weaving, agriculture, cattle rearing and making weapons.

Food

They had wheat, barley, milk, curd, ghee, vegetables, fruits and meat as their food. They drank intoxicating drinks like 'Soma' and 'Sura'.

Dresses and ornaments

The Aryans used clothes made of cotton and wool. Men wore dhoti and shawl. They also wore turbans. Women wore upper garments and lower garments. Both men and women wore ornaments. They wore earrings, necklaces, bangles, anklets and wore bands on their foreheads.

Religion

The Aryans worshipped the forces of nature such as Sun, fire, air, sky and trees. They also worshipped Indira, Varna, Agni and Yaman. There was neither temple nor idol worship in the early vedic age. Religious sacrifices were practised. They wrote religious principles and their explanations. They offered milk, ghee, grains and silk. Yagas like Ashvamedha, Rajasuya and Vajapaya were conducted during poojas.

Later Vedic Period: (BC 1000– BC 600)

The period of Sama Veda, Atharvana Veda, Yajur Veda are called the Later Vedic Period.

In this period the Aryans spread over the eastern side. (Pre Vedic Aryans spread from Kabul to Upper Ganges) During this period the kingdoms emerged. During this period Brahmanas, Upanishads and Aranyakas were also written.



Political Life

The important administrative region was the Indus Valley. Kingdoms like Kosala, Videham, Kuru, Magadha, Kasi, Avanthi and Panchala emerged. Kingship became hereditary. The duty of the king was to defend his country from enemies and to maintain law and order. Since the kingdom expanded, he had more responsibilities. Sacrifices such as Rajasuya and Ashvamedha were performed to establish his undisputed authority. Saba and Samithi declined.

Economic Life

The metal widely used was iron. Handicrafts improved because of this. New tools were made. They grew paddy, sugarcane, barley and wheat. Cow dung was used as manure. Cattle wealth developed. According to the number of cattle owned by a person, his economic status was estimated.

Broken pots of the Aryan Period



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There were weavers, tanners, carpenters and goldsmith. Gold and silver coins like Nishka, Swarna and Satamana were in use.

Caste system became rigid which was called Varna Dharma. Those who performed sacrifices and religious ceremonies were called Brahmanas. Those who waged war to protect and rule the country were known as Kshatriyas. The Vaishyas were the traders and farmers. The people who served the three upper caste and did all the menial works were called Sudras.

Status of Women

During the Later Vedic Period there was no improvement in the status of women. They were subordinate to men. They did not inherit property. They were deprived of administrative power. Child marriage was prevalent. Women who belonged to the royal family enjoyed some privileges. Sati, according to which the widow would throw herself into the funeral pyre of her husband was in practice.

Education

According to the Aryan Dharma, the Brahmin students stayed in the Gurukul (home of the teacher) and learnt. There were highly educated women like Gargi and Maitreyi. In the Gurukul, they learnt philosophy, logic, religion, grammar, astrology, medicine, discipline, mathematics, Vedas and Upanishads. The royal children alone were taught Danur Veda (military strategy).

Religion

There were a lot of changes in the religion according to the Varna Dharma of the Brahmins. The pre-vedic Gods lost their importance. In this period, Brahma, Vishnu, Rudra (Siva) gained importance. Rituals and animal sacrifices gained importance. People had faith in soul, fate and moksha. By the end of this period there was opposition for the rule of the priests, rituals and sacrifices. It was against these meaningless rituals and costly sacrifices, Buddhism and Jainism originated.

Thus Aryan civilization was one of the ancient civilizations, which flourished in India. But it varied from the Dravidian civilization.

Qualities of Dravidians and Aryans

S.No.	Qualities of Dravidians	Qualities of Aryans
1.	Dark complexion, medium height, dark long hair.	Fair, tall and brown hair.
2.	Main occupation-Trade and agriculture.	Main occupation-Cattle rearing and war.
3.	Wore cotton clothes.	Wore woollen, cotton and dresses made out of skin of animals.
4.	Important animal bull. They worshipped bull.	Important animal cow. They worshipped cow.
5.	Built houses out of burnt bricks.	Built houses out of bamboo and clay.
6.	Worshipped idols, lingam, trident, sakthi and snake.	No idol worship and temples. Worshipped nature and performed yagas and rituals.
7.	Used copper. They did not know the use of iron.	Used iron.
8.	Tiger was known. Horse was unknown.	Tiger was unknown. Used horses.
9.	Urban civilization, towns.	Rural civilization, villages.

Evaluation

I. Choose the correct answer

1. The period of Rig Veda

   a. BC 1600 - BC 1000 b. BC 1000 - BC 600 c. BC1500 - BC 1000

2. The unit of currency used during Rig Vedic period

   a. Nishka b. Rupee c. Dollar

3. The woman who excelled in education in the Later Vedic Period.

   a. Gargi b. Abella c. Kosa

II. Fill in the blanks

1. The head of the village was _____.
2. Widows' _____ was in practice during the Early Vedic Period.
3. Assembly that consisted of the Representatives of People was_____.
4. According to _____ , the widow would throw herself into the funeral pyre of her husband.



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III. State whether the following statements are True or False

1. Sabta Sindu is called the 'Land of Seven Rivers'.
2. The commander- in- chief was the Senai.
3. Widows' remarriage was not allowed in Rig Vedic Age.
4. The basic unit of the society was family.
5. Tiger was unknown to the Dravidians.

IV. Match the following

1. Satamana	- Shiva
2. Praja	- Rajan
3. Rudra	- Vishwapathy
4. Head of Jana	- coins
5. Head of Visu	- people of the kingdom

V. Answer the following

1. List the ornaments of the Rig Vedic people.
2. What did the Brahmin students learn during the Later Vedic Period?
3. Compare and contrast the qualities of the Aryan and the Dravidian Civilization.

FORMATIVE ASSESSMENT

1. Search from the Internet
   i. Khyber and Bolan Passes.
   ii. Know their role in Indian history.
2. Collect various kinds of coins and list out the information known from them.
3. Compare the status of women during the Vedic period and the present day.
4. On the outline map of India mark the route of Aryans to India and the following places.

i. Kalibangan	v. Raja Griham
ii. Mohenjo-Daro	vi. Vaishali
iii. Lothal	vii. Mathura
iv. Ujjaini	viii. Asthinapuram

2. JAINISM AND BUDDHISM

The 6th century B.C. was a period of intellectual awakening. During that period, Jainism and Buddhism arose in India. These two religions existed to reform the socio-religious organizations. The aim of these religions is to remove the superstitious beliefs, unwanted religious rituals and the caste discrimination. Vardhamana Mahavira was the founder of Jainism. Gautama Buddha was the founder of Buddhism.

JAINISM

In Jainism, 24 Thirthangaras were worshipped. The first Thirthangara was Adhinathar, who was known as Rishabadevar. Vardhamana Mahavira is the last Thirthangara. (24th) He gave a strong formation to Jainism.

Vardhamana Mahavira lived during B.C.534 – B.C.462. He was born in Kundagramam near Vaishali Nagar, which is now in Bihar. His father was Siddhartha and mother was Trisala. His wife was Yasodha and he had a daughter called Anoja Priyadharshana. At the age of 30, he gave up all the worldly pleasures and became an ascetic. He performed penance for 12 years, seeking answer for the problems during these days. He treated both joy and sorrow equally. He won in his search for truth. So he was called "Jina" which means the "Conqueror". People also called him "Mahavira" . Mahavira went to many places preaching his principles for 30 years.



Mahavira

Why are people born? Why do they die? What are the causes for their sufferings? – These were the important questions that arose in him. He started thinking why people are troubling others and cheating each other. One set of people said that it was because of the sin they did in the previous birth. But Mahavira never accepted this. He thought that how people could not commit sin in this birth.



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So he said that one should not harm others. Human beings are responsible for their own problems. We should not harm any living being. He preached a restricted life. He asked his followers to follow his principles of 'Ahimsa' or 'Non-Violence'. To attain the spiritual goal the Jains starved and subjected themselves to all bodily hardships.

Jainism stressed that no one should kill any living creature. They eliminated clothes. It insisted that they should not wage war or do agriculture. Trade and commerce was their occupation. The religion preached that they should lead a restricted life.

Three Gems or Triratna:

Right Knowledge	Right Belief	Right Action



The Five Doctrines

1. Ahimsa (Non-Violence)
2. Satya(Truth)
3. Asatya(Non Stealing)
4. Aparigraha(Non-possession)
5. Brahmacharya(Celibacy)

His principles spread far and wide when superstitious beliefs, quarrels and fightings prevailed.

Kings who followed Jainism:
Chandragupta Maurya
Kalingathu Karavelen
Koon Pandian
Mahendravarma Pallava I

Contribution of Jains to Tamil Literature:

Epics -
Sillapathigaram,
Chivagachinthamani,
Vallayapathi and Soodamani.

Literature and Grammar works-
Yapperungalaviruthi,
Neminatham,
Nannool,
Agaporulvillakam,
Naladiar,
Nanmanikadikai,
Pazhamozhi,
Thinaimalai Noorthiyampathu and Tamil Nigandu.

Contribution of Jains to architecture:
Rajasthan - Dilwara temple at Mount Abu.
Kajiraho - Chittoor, Ranakpur – Temples of Jains.



Dilwara

"Kollaan pulaalai marutthaanai kaikoopi
Ella uyirum thozhum"
– Thirukkural



Sculpture:
- Udaiyagiri
- Hathigumpa
- Girnar
- Sravanabelagola.
- Kazhugumalai

The statue of Gomatheswara at Sravanabelagola is at Karnataka.

BUDDHISM

Gautama Buddha was the founder of Buddhism. His original name was Siddhartha. He lived during 563 - 483 B.C. He was born at Lumbini Vanam near Kapilavastu in Nepal. His father Suddhodana belonged to the Sakya dynasty. His mother, Mayadevi died at the seventh day of his birth, so he was brought up by his step-mother. He got married at the age of 16. His wife was Yasodha and Rahul was his son.

Even at his early age, he was anxious to know about what was happening in the world. He never showed any interest in hunting and luxury. The miseries and poverty of the poor people affected him very much.



Buddha

He was disturbed by the luxury on one side, poverty, sickness and old age on the other side. He disowned his parents, wife and son. He went to the forest and meditated. He controlled his hunger and thirst. But he never got the answer for the question. Since he could not get an answer, he stopped torturing himself and ate food. To find out the truth, he started thinking. He was enlightened.

Siddhartha, who was enlightened under a pipal tree at Gaya became Buddha.

The meaning of the word 'Buddha' is a person who knows what is good, what is bad and what is suffering.

He preached his first sermon at Deer Park in Sarnath near Banares in Uttar Pradesh.

Principles of Buddhism

Life is full of miseries. The reasons for the sufferings are not because of fate or the deeds of our previous birth. There are other reasons for sorrows. We should strive to overcome the sorrows by not being greedy, not telling lies and not harming others. To avoid miseries one should have right thinking, right speech and right livelihood. He opposed caste discrimination. Man need not have any fear for God, soul and fate. One should depend and live on his own ideas and knowledge. We should show compassion towards animals, birds and human beings.



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Buddha's principles on suffering are the Four Noble Truths and the principles on conduct are the 'Eight Fold Paths'.

The Four Noble Truths are:

1. Life is full of sorrow.
2. Desire is the cause of sorrow.
3. Sorrow can be ended by giving up desire.
4. The eightfold path is the way to end sorrow.

Eight – Fold Paths to overcome desire:

- ✓ Right belief
- ✓ Right speech
- ✓ Right living
- ✓ Right memory
- ✓ Right effort
- ✓ Right thought
- ✓ Right action
- ✓ Right meditation

In order to spread the truth he went from place to place. Wherever he went, he discussed his ideas with various groups of people. Buddhist monks came forward to spread the principles of Buddha. The organization of the monks was called as 'Sangam'.

The agriculturists, poor people, women, menial labourers and those who were affected by the society accepted the principles of Buddha. The idea that all are equal was new to them. So Buddhism spread far and wide.

Many kings followed Buddhism like Jainism. The most important among them was King Ashoka. Jainism and Buddhism were at their zenith till the 6th century. They started to decline when Hinduism regained its earlier position. Later Buddhism split into Hinayana and Mahayana.

Hinayana	Mahayana
Accepted Buddha's principles.	Worshipped Buddha as God.
No idol worship.	Idol worship

Art and Architecture





Sanchi Stupa

Even today Buddhism is followed in Ceylon, Burma, Tibet, China, Japan and Thailand.
The kings who followed Buddhism – Ashoka, Kanishka and Harsha.

Do you Know?

- Our National Emblem (The figure of four lions) is taken from the capital of Ashoka Pillar.
- The Chakra in our National Flag which has 24 spokes is taken from the 'Dharma Chakra' of the Ashoka Pillar.
- Bihar is the place where there are many Buddha Viharas.

Historical Monuments

- The Jataka tales describes the history of Buddhism. The Jataka stories are depicted at Gaya, Sanchi and Burcut.
- Ajantha and Ellora Cave paintings which are in Aurangabad at Maharastra describe the fame of Buddha. Gandhara art also belongs to Buddhism.
- The prayer halls of the Buddhist monks are called Chaityas and their monastries are called Viharas. They are of rock cut structures.

Literature

- The Buddhist religious texts are called Tripitakas. They are Vinaya Pitaka, Sutta Pitaka and Abhidamma Pitaka.
- Manimekalai and Kundalakesi are Buddhist literature.

  The books written by Jain monks.
- Sillapathikaram, Nannool (Grammar)
- Chivagachinthamani, Vallayapathi (Literature).
- Religious text: Angas and Purvas.

To know

Mahavamsam, a book of Sri Lanka says that Tripitakas was written during the reign of Vattakkamini Abayan. In Pali language it is called as Tripitakam which means three baskets.

> Water cannot enter into a Properly constructed house;
> Evil thoughts cannot enter into the hearts of those who have good thoughts.
>
> – Buddha.

Evaluation

I. Choose the correct answer.

1. The one who laid strong foundation to Jainism

   a) Vardhamana Mahavira b) Athinathan c) Rishabadeva

2. The principles stressed by Jainism

   a) idol worship b) not to kill c) untouchability



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3. A place in Tamil Nadu where you can see Jain sculptures
   a) Girnar b) Kazhugumalai c) Hathigumba
4. The place where Buddha was enlightened
   a) Kundagrammam b) Deer Park c) Gaya
5. One of the most important kings who followed Buddhism
   a) Chandra Gupta b) Ashoka c) Bindusara

II. Fill in the blanks.

1. _____ was known as Conqueror or Jina.
2. The principles stressed by Jainism are called _____.
3. _____ is the place where Gomatheswara statue is situated.
4. The principles of Buddha are called _____ .
5. The organization of the Buddhist monks is called _____ .
6. The Dharma Chakra in our National Flag is taken from the _____ pillar.

III. State whether the following statements are True or False

1. Mysore is the place where Gomatheswara statue is situated.
2. The son of Buddha was Rahul.
3. The founder of Jainism was Buddha.
4. Mahavira was the 24th Thirthankara.
5. There are 24 spokes in the Ashoka Chakra.

IV. Match the following.

1.	Tripitakam	-	worshipped Buddha as God
2.	Hinayana	-	Buddha's first sermon
3.	Sillapathigaram	-	who accepted Buddha's prinicples
4.	Deer Park	-	Jain literature
5.	Mahayana	-	religious text of Buddhist

V. Answer in five lines.

1. What are the causes for the rise of Jainism and Buddhism?
2. Describe the Triratnas insisted on by Jainism.
3. Write short notes on the contribution of Jains to Tamil literature.
4. Write the Four Noble Truths of Buddha.
5. Mention the Eight Fold Paths to overcome desire.

VI. Answer in detail.

1. Explain the distinctive features of Jainism.
2. Explain the ideas you like in Buddhism.

FORMATIVE ASSESSMENT

1. Which of the principles of Jainism and Buddhism do you like to follow? By following such principles what are the good changes that can happen? Think it over and explain.
2. Jainism and Buddhism which originated in India are now being followed only in the foreign countries. Examine the reasons.
3. Know the special features of Ajanta and Ellora or to visit a library and know these things through books.
4. On the outline map of India mark out the following places:
    i. Sravanabelagola
    ii. Vaishali
    iii. Mount Abu
    iv. Kabilavasthu
    v. Sanchi
    vi. Gaya
    vii. Ajanta and Ellora



GEOGRAPHY

3. Rotation and Revolution of the Earth

The Earth is always in motion. It has many movements. Rotation on its own axis and Revolution around the Sun are the two important movements of the earth.

Rotation

The Earth takes approximately 23 hours and 56 minutes for one rotation on its axis. This movement is called rotation. It causes day and night.

All parts of the Earth do not experience day and night at the same time. The part of the Earth's surface which faces the Sun experiences day. The part of the Earth's surface which does not face the Sun experiences night.

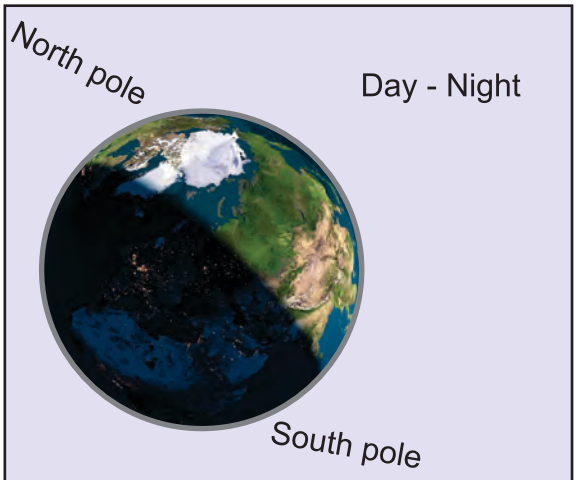
So when it is day time in India, America which is on the other side of the Earth experiences night.

Let us do

Take a ball and keep it on the floor of a dark room. Focus the light from a torch on one part of the ball in the dark room. What do you see?

The light of the torch is seen only on the front portion of the ball. The other side of the ball is dark because light does not fall on it. It is assumed that the torch is the Sun and the ball is the Earth.

Similarly the surface of the Earth that faces the Sun has day and the surface of the Earth which does not face the Sun has night.



In ancient times, it was believed that day and night was caused due to the rotation of the Sun around the earth.

Aryabhatta was an ancient Indian astronomer. He explained scientifically that the Earth rotates on its own axis.

When you travel on a boat down the river the banks of the river appear to move in the opposite direction.

Similarly he said that the Sun remains in the same position, but because the Earth rotates on its own axis, it appears that the Sun moves around the Earth.

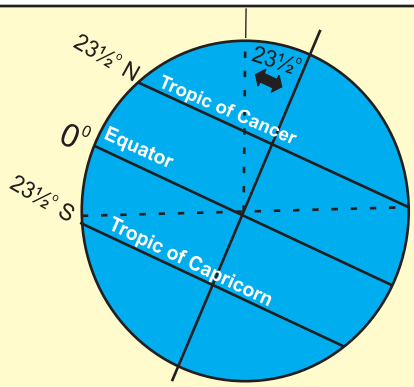
In olden days, Sunrise is marked as the beginning of a day. At present a day begins at 12 midnight.

The Earth not only rotates on its axis but it also revolves around the Sun in an elliptical orbit.

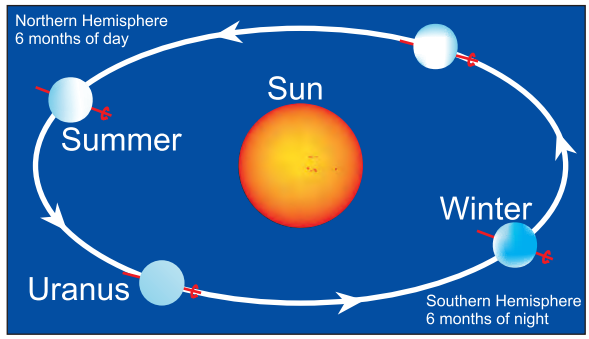
The duration taken by the Earth to complete one revolution is called a year. A year consists of $365^{1/4}$ days .

How many times in a year does the Earth rotate? Calculate, discuss and check the answer with your teacher.

The Earth's axis is not a real axis drawn around the ground. Some imagine it to be real. It is only an imaginary line that connects the North Pole with the South Pole. Does this axis pass through the centre of the Earth or not? Debate it with your teacher and check your answer.



The Earth is inclined at an angle of 23½° from its vertical axis. This inclination causes seasonal changes. (see the picture)



What would happen if the Earth's axis were not inclined at 23½° but were flat?.

If the Earth's axis were also flat then there would be six months of day and six months of night on earth for one revolution around the Sun.

This situation prevails in the Uranus, which can be seen in the picture above.

A wheel spins on its axis. This axis is the centre. Similarly when the Earth rotates, it rotates around the line that connects the North pole and the South pole. This imaginary line is called as its axis. Where is the Earth's axis located?Think – Discuss with your classmate.



Do the experiment and enjoy: Select a place facing the East, where the Sun rises in the morning. Select the place that exactly faces the Sun and place a stone on the wall which faces the Sun. Keep new stones every day regularly in a straight line. You will notice that the point at which the Sun rises shifts daily towards the North east or South east.



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Leap Year
(A year with an extra day)

The Earth does not exactly take 365 days to complete one revolution around the Sun. It takes approximately 365 ¼ days to complete one revolution.

For the sake of convenience we consider only 365 days for one year. The remaining ¼ day is added as one whole day to every fourth year. When this is added to the fourth year that year has one extra day which is called as leap year. During a leap year the extra day is added to the month of February. So in a leap year the month of February has 29 days. i.e.Divide any given year by four. If you get a remainder it is not a leap year, if the remainder is zero then it is a leap year.

when we divide year 2000, the remainder is zero.

Thus 2000 A.D. was a leap year.

Revolution of the Earth

Day and Night are the systematic changes that takes place everyday.

Similarly there are seasonal changes every year. The four seasons are Spring, Summer, Autumn. and Winter. Why do seasonal changes occur?

The path which the Earth takes to revolve around the Sun is elliptical in shape.

Hence at one position the Earth is close to the Sun and at another position it is far away from the Sun.

Generally during July the Earth is far away from the Sun. In January it is very close to the Sun.

If seasons are caused because of this, then it should be winter in July and summer in January.

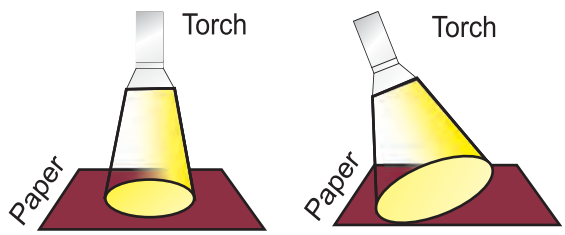
During December Tamil Nadu which is in the northern hemisphere experience severe winter whereas Australia which is in the southern hemisphere has summer.

When we sweat out during April and May due to summer, Australia shivers with cold.

Therefore it is clear that the seasons are not the same everywhere on the earth. If it is summer in the northern hemisphere, it is winter in the southern hemisphere and if it is winter in northern hemisphere, it is summer in the southern hemisphere. Hence there is reversal of seasons. We cannot say that the seasons are caused by the earth's elliptical orbit.

Then why do seasonal changes occur?

Seasons are caused because the earth's axis is inclined. Let us do an experiment to illustrate this.



Let us take a torch. Spread a sheet of paper on the floor. Hold the torch exactly on top of the paper and with the help of a red colour pencil draw how much of light it spreads on the paper. (diagram)

Now hold the torch at a slanting position over the paper. Even now light spreads on the paper. With the help of a blue colour pencil, mark how much light is spread on the paper .

The area covered by the light that spread on the paper when the torch was held straight was less and the area covered by the light that spread on the paper when the torch was slanting was more. Hence when light falls in a slanting position the area covered is more. You will notice that the brightness of the light that falls also varies. The light that spreads on the paper varies from point to point and becomes less.

The sunlight that falls on the North pole and South pole varies, because the axis of the earth is inclined.

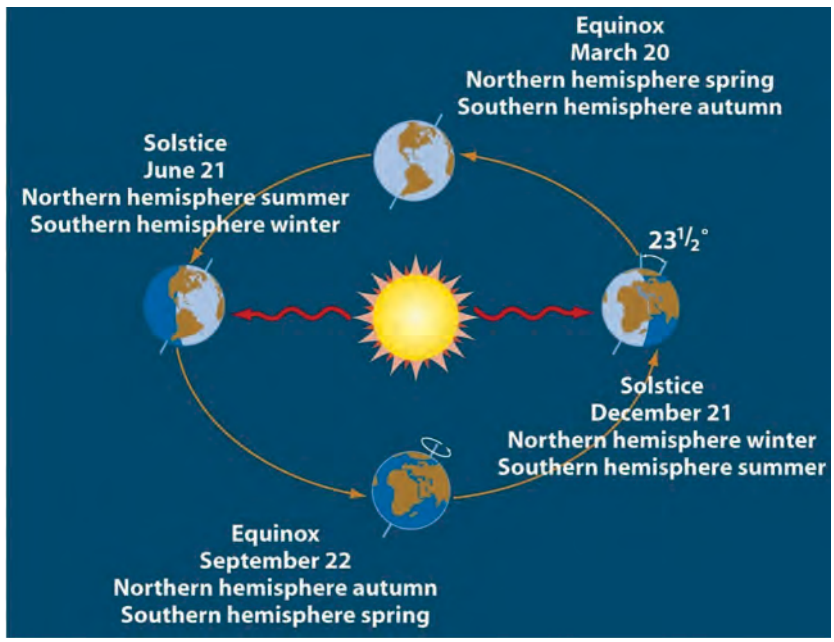
When we are asked where does the Sun rise? immediately answer that the Sun rises in the east.

But the truth is that Sun does not exactly rise in the east everyday. In Tamil Nadu, during most of the days of the year the Sun rises either in the south east or north east.

On December 22nd the Sun which rises mostly in the south east, now starts moving towards the north. This is called Northern movement (Uthrayan) From then on the point at which the Sun rises moves towards the north east and on June 21st it reaches maximum of its point.

After this the points at which the Sun rises moves towards the south and this is called as Southern movement (Dakshinayan). Between these points, on two days the Sun rises exactly in the east.

On March 21st and Sep 23rd the duration of day and night is equal throughout the Earth - i.e. 12 hrs of day and 12hrs of night. Hence they are called equinoxes. March 21st is referred to as Spring equinox and Sep 23rd as Autumnal equinox.





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The northern hemisphere is exposed to the Sun's light during the month of June, for six months, because the earth's axis is inclined.

After six months the southern hemisphere is exposed to the Sun's light during the month of December. The Sun is overhead at the northern hemisphere and is exposed to the Sunlight. Hence the northern hemisphere receives the direct rays of the Sun. It is summer in this region.

After six months when the southern hemisphere is exposed to the direct rays of the Sun, it is summer in the southern hemisphere.

Summer is usually associated with heat, brightness and longer days.

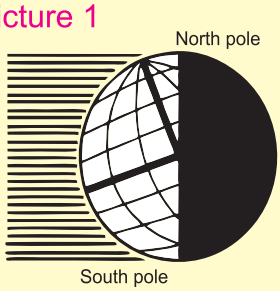
During this time Northern hemisphere receives the slanting rays of the Sun. Hence it is winter in the Northern hemisphere.

Winter is associated with cold weather early sunset, shorter days.

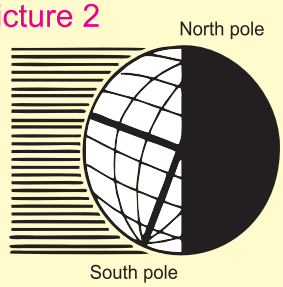
In December, India and England celebrate Christmas as a winter festival, whereas in Australia it is summer, so Christmas is celebrated as a summer festival in Australia.

Day and night at the poles

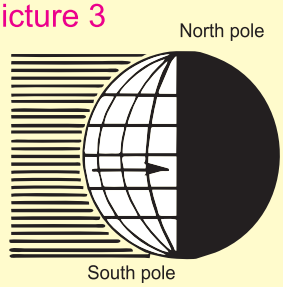
Picture 1



Picture 2



Picture 3



Picture 1

You will notice in the picture that the northern hemisphere faces the Sun during the month of June. Also observe the day and night line. You have to understand that due to the earth's rotation day and night changes occur in the equatorial region but the North pole has continuous daylight. At the same time, notice that the southern pole has continuous night.

Picture 2

Look at the picture. When the South pole faces the Sun during December, the North pole is completely dark and the South pole has continuous daylight. The inclination of the Earth's axis not only causes seasonal changes but there is something amazing about it. At the poles there are six months of continuous daylight and six months of continuous darkness.

Picture 3

The Sunlight falls vertically on the earth's axis on March 21st and September 23rd. Hence on these two days, day and night is equal in both the hemispheres. The days are equal to the nights all over the Earth.

According to Tamil tradition there are six seasons, (for every two months there is one season) Ancient Tamil literature speaks about this. The six seasons are Khar, Kulir, Munpani, Pinpani, Ilavenil and Mudhuvenil. But according to the international standard, only four seasons have been recognized. The four seasons are summer, winter, autumn and spring.

What gets heated?

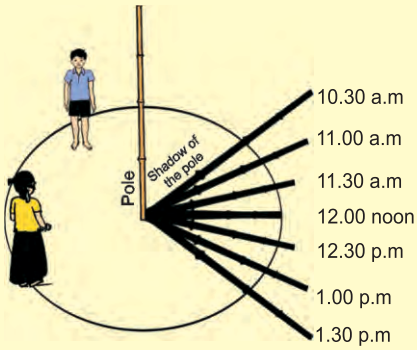
Take two black coloured papers and two thermometers. Fix the thermometer on the black coloured paper. Place one paper on the ground in a horizontal position and the other paper in a slanting position and make sure that the Sun is approximately overhead.

When the Sun is overhead the light falls vertically on the paper that is in a horizontal position. The paper that is in a slanting position receives the slanting rays of the Sun. Ensure that the shadow of the clouds and the students does not fall on both the papers.

The temperature increases in both the thermometers. After reaching a certain stage the temperature remains constant. It will take about ten minutes for this to happen. Then compare both the temperatures and find out which received more heat. Discuss and find out the relationship between this experiment and how the temperature changes according to seasons on earth. Summer is hot because the earth receives the direct rays of the Sun and winter is cold because the earth receives the slanting rays of the Sun.

Shadow game

Fix a pole in an upright position in a playground. Get the help of your teacher to do it. The pole will cast a shadow in the morning. Mark accurately the end of the shadow with a stone. Measure the distance of the shadow and make a note of the time.



Discuss in the class where the shadow will be and how long will it be after 30 minutes. With the help of a stone, mark the end of the shadow which each student indicates. After 30 minutes find out where actually the shadow will be and measure the length of the shadow.

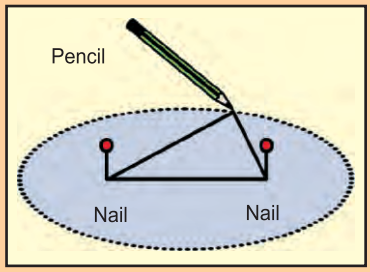
The Sun is exactly overhead during midday. The shadow is the shortest during midday. Not only that, the shadow of the pole will face the north. The shadow is the longest during the morning and in the evening. Notice the direction of the movement of the shadow in the clockwise direction.



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Let us draw an outline of an ellipse

Fix two nails on a board. Take a thin thread. Measure twice the distance between the two nails.



Make a knot by bringing the two ends of the thread together. Fix the thread on both the nails. Place a pencil somewhere at a point on the thread and pull it tightly. Draw a line by holding the pencil tightly. Now you will get an oval shape.

A circle has only one centre. But an ellipse has two convex centres other than the centre. The position of these two nails are the convex centres of the ellipse. We know that the Earth takes an elliptical path to revolve around the Sun.

The Sun is situated in one of the convex centres of the ellipse and not in the centre of the ellipse.

Evaluation

I. Choose the correct answer :

1. The earth is inclined at an angle of _____degree.

a) 23½ b) 66½ c) 90

2. Rotation results in _____ .

a) Seasonal changes b) Day and night changes

c) Northern and Southern movement

3. In a leap year February has _____ days.

a) 28 b) 29 c) 27

II. Answer the following questions :

1. Why does day and night changes happen?
2. When it is summer in the northern hemisphere, why is it winter in the southern hemisphere?
3. Why do the poles have six months of day and six months of night?

III. Project :

1. Identify the leap years between 1999 and 2011.
2. What will be the outcome, if the Earth rotates in the same place?
3. Find out which days of the year have the longest duration of day and night.
4. With the help of a map or a globe find out what season will India experience when Australia has winter?

FORMATIVE ASSESSMENT

1. List the seasons and their months in Tamilnadu.

Seasons	Months
Summer	
Winter	
Spring	
Rainy	

2. Find out the time with the help of the shadow of your school or your house and compare it with clock time.
3. List the festivals of summer and winter seasons.
4. Complete the following tabulation.

Seasons	Food	Dress	Precautionary Measures
Summer			
Rainy			
Winter			



CIVICS

4. VILLAGES AND CITIES

India is a country consisting of a large number of villages. About 70 percent of Indian population live in rural areas. Occupations like agriculture and textile activities are the primary activities of the rural population.These people engaged themselves in these noble occupations which provide food and cloth for all. But the living conditions of the people are not improving. Ghandhiji mentioned that “Villages are the backbone of India”.

These days people prefer to migrate from villages to towns and cities. Those who migrate from the villages find it difficult to live in cities in initial Stages.

Cities with large population are called Corporations. Some of them are Chennai, Madurai, Coimbatore, Trichy, Salem and Tirunelveli. Corporations have broad four-way roads, flyovers, skyscrapers, parks, private and public offices, industries, educational and technological institutions. Residential apartments are increasing in the suburban areas.

Villages are located more or less twenty five kms. away from the cities. These are called as suburban areas. The main occupation of the people living in these areas are agriculture, weaving, handicrafts, brickkiln and rice mills. They even engage themselves in fishing. Nowadays we find many differences between cities and suburban areas.

The basic requirements like food, clothing, shelter, education, medical facilities, transport facilities, employment opportunities and social security should be provided.

There are more employment opportunities available in cities. People working in Government offices and technical industries receive monthly income. Permanent employees, people who work in factories television and journalists also receive regular income. These people are able to satisfy their basic requirements easily.

But at the same time people living in villages are entirely different. Most of the people are agriculturists or farmers.

As agriculture is well developed, it provides job opportunities to agricultural labourers. In recent years the pastural lands have been reduced in size and cattle rearing has also decreased. Most of the agricultural activities are done by machines.



This was a death blow to agriculture. Therefore, agricultural labourers started migrating to towns and cities. People who have migrated from villages and towns are employed in construction industries and manufacturing industries.

Difference between the life in villages and cities

Village life	City life
1. Fresh air and ventilated residential areas	Polluted environment and crowded residential areas
2. Dependent on each other	Independent life
3. Hereditary occupations	Changes according time to time
4 Simple and natural food	Fast food and expensive food varieties
5. Less transport facilities	Different modes of transport
6. Less medical facilities	Expensive modern medical facilities
7. Availability of Primary, Middle and High School Education. Less opportunities for higher education	Higher educational facilities are available in all fields

Municipal Corporations of Tamilnadu:

Chennai, Madurai, Coimbatore, Thiruchirapalli, Salem, Tirunelveli, Erode, Tirupur, Vellore, Tuticorin. Dindigul, Tanjore

Do you agree with the differences mentioned above? Form small groups and discuss. Prepare a list regarding the life in villages and cities.



The various government welfare schemes help to reduce the gap between villages and cities.



- To increase employment opportunities the government has introduced "Velai Uruthiyalippu Thittam".
- Medical insurance for the poor.
- Transport facilities in villages
- Each and every panchayat is provided with infrastructure.



- Fair price shops supply goods of good quality to the consumer at reasonable price. By adopting these methods, the government has made efforts to control migration of people from villages to cities.



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The Government has introduced the scheme "Sarva Shiksha Abhiyan" (SSA) to enable all children in the age group of 6 to 14 years to attend school upto 8th standard. In order to help these students to continue their Secondary Education, the Government has also implemented the "Rashtriya Madyamik Shiksha Abhiyan" (RMSA). As a result of these programmes, the number of dropouts from schools has been reduced.



Evaluation

I. Fill in the blanks

1. The main occupation of the people in the village is _____.
2. Transport facilities are available in _____.
3. Agricultural workers migrate from villages to _____.

II. Answer the following

1. What are the basic requirements of man?
2. Give reasons for the migration of agricultural workers to cities.
3. How can corporations be identified?
4. List the infrastructure facilities found in cities.
5. Enumerate five differences between village life and city life.

III. Think and answer

1. List the reasons for the differences between villages and cities.
2. Give suggestions to remove the differences found in villages and cities.

FORMATIVE ASSESSMENT

1. List the employment opportunities of rural and urban areas.
2. Give your suggestions to improve the conditions of villages.
3. Give your suggestions to reduce the difficulties prevailed in towns.
4. Enact a drama to highlight the insufficiency of medical and transport facilities in villages.
5. Imagine and draw a picture of a village or town which you like.

5. REPUBLIC

In the previous lesson, we have learnt about the steps taken by the Government has to minimize the differences found in villages and towns. In this lesson, we will learn 'What is meant by Government?'

In the olden days, our country was ruled by kings and chieftains. Tamil Nadu was ruled by the Cheras, Cholas Pandyas. Kalabhras, Pallavas, Nayaks, and Marathas.

Coming of Europeans

The Europeans like the English, Portuguese, French and Dutch came to India for trade. In India there were frequent wars among the rulers. Taking advantage of this situation the English subdued the Indians and ruled over the country for more than two hundred years. During this period the Zamindari system emerged. Most of the land was under the control of the Zamindars.





Freedom for India

The Indians were eager to free themselves from the British rule. They did not want the British to rule over them. Indians wanted to have their own rule. At the same time they decided to remove the inequality in the society. The Indians joined together and revolted against the British rule. As a result of this India got independence on 15th August 1947.

In independent India, there was a discussion regarding the type of government to be formed. They were in favour of a democratic government. According to their desire, after independence a democratic government was established.

Democracy - Definition

It is a system of modern Government in which people rule themselves through their elected representatives. Indian adults above 18 years become eligible to vote. These people have enacted a constitution for them through their representatives. Now people are governed by constitutional law. Therefore India is called Republic.



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Our Government

Only elected representatives of the Parliament and the Assembly can make decisions, frame laws and implement various plans.

Our representatives are elected through elections. Those who have completed the stipulated years of age are eligible to contest in the elections. There is no discrimination in caste, creed, religion, language, gender and economic status to contest in the election.

The Constitution assures Justice, Liberty, Equality and Fraternity. The Supreme Court is the guardian of our Constitution. People can approach the court with their grievances and get justice. All are equal before law. Those who are talented and interested can become lawyers or judges.

The District Collector receives orders from the State Government and implements them through his officers.

Departmental officers below the collector provide requirements of the people like drinking water electricity, food supply and transport. The administrative officers are in various stages at Taluk, Block and Village level.

The Collector along with the subordinate officers help in implementing the development programmes.

If we find any disparities in the basic services, we have to approach the officers concerned and mention our grievances. Every Monday is observed as 'Grievance day'. People residing in that area can approach the officers with their grievances. Apart from this once a month officer in the rank of District Collector or District Revenue officer conducts camp in remote villages. Those who do not have the facility to visit the District Collector's office can utilize this opportunity and approach the Collector directly and hand over their petitions. In the same camp all the grievances are solved by the Public Relationship Programmes. (Makkal Thodarbu Thittam).

Maintaining law and order is the duty of the District Collector while prevention of crimes is the duty of the Police department. The duties of the Defence force is to protect our country's border from foreign invasion. At the time of natural calamities they help the Civil Administrators.

The executive head of the Indian Government is the Prime Minister. Each state is ruled by the Ministers under the leadership of the Chief Minister. Lok Sabha, Rajya Sabha and State Assembly representatives are elected according to the Indian Constitution.

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India became Republic on 26th January 1950.

When we play cricket or football, we frame rules and regulations. In the same way, we have rules and regulations for our Government. This is known as "Constitution of our Nation"

Activity

1. Visit the camp organized by the Collector for 'Public Relationship Programme' and 'Grievance day'. Form small groups with the assistance of the teacher. Observe how the officers find solution to the problems and discuss in class.

2. Visit a police station, court near your village / city with your teacher. Observe how they function. Discuss with the officials there and gather information. Explain and discuss in classroom.

Evaluation

I. Fill in the blanks

1. The type of Government followed in our country is _____ .
2. Law and order is maintained by _____ .
3. Officer from the rank of Village Administrative Officer to the _____ participate in camps in remote villages once a month. This is called _____.

II. Answer the following

1. Who ruled our country during the ancient period?
2. Where and when do they observe 'Grievance day'? How do they find solutions?
3. Who are representatives? How are they elected?.



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FORMATIVE ASSESSMENT

1. Conduct a mock general election in the classroom.
2. Conduct student grievance redressal day once in a month and record its events.
3. Form the rules and regulations of your class room with help of your teach

4. Which of the following departments do you like to serve?
   i. Administration
   ii. Judiciary
   iii. Politics
   iv. Police
   v. Military

5. Write down the names of the persons who occupy the following positions.
   i. President
   ii. Vice President
   iii. Prime Minister
   iv. Chief Justice of Supreme Court
   v. Governor
   vi. Chief Minister
   vii. Chief Justice of High Court
   viii. District Collector
   ix. Member of Parliament
   x. Member of Legisative Assembly

'I can, I did'

Student's Activity Record

Subject:

Sl.No	Date	Lesson No.	Topic of the Lesson	Activities	Remarks