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STANDARD NINE

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E - book



Assessment



DIGI links



Learning Objectives

The scope of the lesson is presented

Introduction

The subject to be discussed in the lesson is Introduced



QR Code

Leads the students to animated audio, video aids for getting experiential learning

Do You Know?

Provides additional information related to the subject in boxes to stir up the curiosity of students



Infographs

Visual representations intended to make the complex simple and make the students grasp difficult concepts easily

Fun with History

Activities for 'learning by doing' individually or in groups

Summary

Describes the main points briefly in bullets for recapitulation

Exercise

For self-study and self evaluation



Glossary

Key words and technical terms explained at the end of the lesson for clarity

Reference

List of books and net sources for further reading



ICT Corner

Using technology for learning activities, which enables the students to access digital sources relevant to their lessons.

STANDARD NINE

HISTORY

UNIT

1

The Classical World


 Learning Objectives

- To gain knowledge of the classical civilization of Greece
- To know Athenian democracy and the age of Pericles
- To understand how a small town (Rome) emerged as a republic and later became an empire
- To learn the contribution of Rome to world civilization
- To acquire knowledge of classical China and its achievements
- To trace the origin of Christianity and its spread in Eastern Roman Empire



Introduction

When America, Australia and Africa remained outside the mainstream of world history, civilizations blossomed in scattered areas of the land mass of Europe and Asia, known as Eurasia. Some of them soon reached the classical stage. When the classical era was at its height, a chain of empires from Rome to Persia to Peshawar, began to emerge. The expansion of major civilizations eliminated the geographical gap and paved the way for inter-regional trade contacts and cultural exchange. This led to the transmission of ideas, technology and art. The diffusion of the great religions of the world, beginning

with Buddhism and later continuing with Christianity and Islam, can be understood in this context.

Greece, Rome and China represented the Classical World which ended with the fall of Western Roman Empire. Until the end of 5th century AD (CE) Christianity was confined to the Roman Empire. Later it became a powerful unifying bond in the whole of Europe.

Classical World comprises ancient Greece and Rome and Classical Age refers to the inter-locking civilizations of ancient Greece and ancient Rome, known as Graeco- Roman World.

1.1 Greece: The Hellenic World

Until 8th century BC (BCE) Greece was not different from the rest of the world. People were illiterate, craft specialization was primitive, and life was difficult. With the exception of Sparta, agriculture was limited by the mountainous terrain. However, the Greeks succeeded in founding colonies along the coast that helped them earn revenue through trade. As a result by the 6th century BC (BCE), Greece turned into a network of City-States. **Acropolis**, a fortified city of ancient Greeks on a hill in Athens, is an illustrative example of their advancement. Though the City-States fought each other they were bound together by trade, by a common alphabet, similar religious practices, and festivals. The illustrious example for the last one was the Olympic festival of sports and games.



Acropolis

The ruling class in Greece controlled the land. Slaves cultivated the land. Greek writers and philosophers saw the ownership of slaves as essential to a civilized life. Aristotle compared the master and slave relationship to that of husband and wife, and father and children.

Greeks' Victory over Persians

King Darius (BC (BCE) 550–486), who was heading a great empire in Persia, decided to conquer the Greek City-States. The first Persian attack on Greece failed. This was due to the fact that Persian army suffered from disease and lack of food during its march. Therefore, in planning the second attack, the Persians avoided the land route and came by sea. The Greeks or Hellenes, fought patriotically and defeated the Persian army at Marathon in 490 BC (BCE). Xerxes, King Darius' successor conducted another expedition. Joined by Spartans this time, the Athenians persisted in their resistance and in the final battle fought in Salamis, Persian ships were destroyed. Disheartened Xerxes returned to Persia without achieving his end.

"Democracy" in Hellenic Greece

When the Greek City-States first emerged, they still carried the legacy of the past. The rulers came from lines of traditional chieftains. Those who grew rich from the expansion of trade resented the privileges enjoyed by the old ruling families. The outcome was the overthrow of the kings and the establishment of "oligarchies" in many city-states. Under Oligarchy, the new rich exploited the smaller landholders. So this republic was soon replaced by some ambitious men who administered tyrannically. Yet the Age of Tyrants 6th century to 4th century BC (BCE) proved to be a period of urban development, with new buildings and enormous temples such as **Olympian Zeus** at Athens.

Athenian Democracy

In Athens, the pressure from below resulted in the replacement of both oligarchy and tyranny by "democracy." The law-making power in Athens was vested in an assembly open to all freemen.

Judges and lower officials were chosen by lots. This arrangement was resented by the upper classes who considered democracy to be the rule of the mob.

The Persian danger had united the Greeks. When this danger was removed, they started quarrelling again. The history of many Greek city-states was one of continual struggles by the rich landowners against “democracy”. The only exception was Athens, where “democracy” survived for about 200 years.

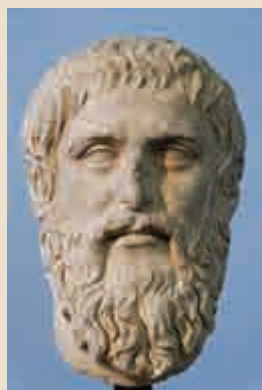
The word ‘**democracy**’, literally means “rule of the people”. In reality it excluded slaves, women, and non-residents known as metics (traders and craftsmen).

Pericles (461–429 BC (BCE))

Athens had a great leader, Pericles, who held power for thirty years. During his rule, **Athens** and **Sparta** were continuously at war with each other. This war is known as the Peloponnesian War. Athens, despite hostility and disturbance from Sparta, became a noble city with magnificent buildings. There were great artists and great thinkers. Historians therefore call this the **Age of Pericles**. Herodotus, the historian, and his successor Thucydides, lived about this time.



Pericles



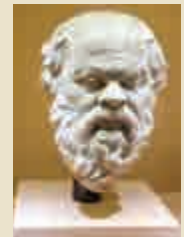
Plato



Aristotle

The thinkers of the Pericles era sought to find a new objective basis for arriving at truth. The greatest of them was Socrates. As a philosopher, he discussed difficult problems with his friends so that truth might emerge out of the discussions. Plato was his illustrious disciple. Plato argued that truth must depend on a realm outside human experience, accessible only to philosophic elite. Aristotle, studying under Plato, laid stress on the empirical knowledge of the existing physical and social world. Democritus and Epicurus developed a materialist view of the world.

The Athenian government, after Pericles, did not like Socrates’ way of finding truth. In a trial, Socrates was accused of refusing to accept the gods recognized by the State and corrupting the youth. The jury found Socrates guilty and sentenced him to die by drinking hemlock (a poison).



Socrates

Beginnings of Hellenistic Civilization

The Greek city-states did not have an elaborate bureaucracy. They were therefore able to show a greater dynamism. Under Alexander the Great, the Greeks were able to establish a kingdom in Macedonia. This kingdom succeeded in annexing two historic empires of Egypt and the Middle East. But the entire period of Alexander’s reign was spent on wars.

Cultural development that took place rapidly after Alexander’s death 323 BC (BCE) is called **Hellenistic civilization**.

The Greek school of Science, Mathematics and Philosophy reached its peak in the

Greek-Egyptian city of Alexandria. **Euclid** who formulated the basic theorems of geometry, **Eratosthenes** who accurately calculated the diameter of the earth, and **Hipparchus**, the founder of trigonometry were all products of this age. **Ptolemy** built on Hipparchus's ideas and later developed a model of motion of the planets and stars.

1.2 Rome: The Hellenistic World

Roman Republic

In the beginning Rome was a society of agriculturists, organized through lineages. Out of this developed a hereditary ruling class. Roman people were divided into two classes: Patricians, rich landlords, and Plebeians, a common citizens.

Rome was strategically located in the crisscrossing trade routes cutting north-south and east-west. Taxes on passing traders added to the revenue derived from agriculture. By the late 6th century BC (BCE), Rome developed into a prosperous town.

According to Roman tradition, Romans established a republic after overthrowing Etruscans in 509 BC (BCE)

The Roman Republic was governed by the Patricians. Two Consuls were elected by those with voting rights. These consuls in turn appointed the Senators. Senators and Consuls protected the interests of Patricians. Plebeians were chronically in debt and had to eventually lose their land to the Patricians. Wars of conquest also helped the Patricians to expand their landholdings.

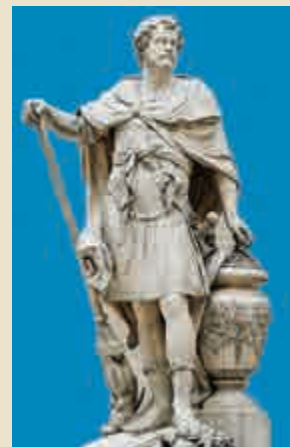
Class War between Patricians and Plebeians

Prisoners of war were enslaved in Rome. Thus Rome produced a new labour force for the rich to exploit. Big landholders bought slaves cheaply and used them to cultivate their estates. The slave population grew and by the 1st century BC (BCE) there were two million slaves, when the total strength of free population was 3.25 million. Slave labour led to the impoverishment of free labour. Many poor peasants had to abandon their children who also ended up in the slave markets. The conflict between Plebeians and Patricians became bloodier.

A major source of revenue to the Roman state was slave trade. The island of Delos became a great slave market.

Punic Wars and the Emergence of Imperial Roman Empire

As Rome was growing in Italy, Carthage was growing in power in north Africa. The Carthaginians were the descendants of the Phoenicians who excelled in seafaring and trade. Rome and Carthage united to drive out the Greeks. Thereafter Carthage took Sicily and threatened the very existence of the Roman state. The three wars fought between them are called **Punic Wars**. Carthage sent a general named Hannibal. He defeated the Roman army and made a great part of Italy a desert. Fabius, who led the Romans, did not give up. In the second Punic War, Fabius confronted Hannibal and defeated him in the Battle of Zama. Pursued by the Roman army, Hannibal ended his life by poisoning himself. The third Punic War was declared on the Carthaginians by Rome. After the defeat and destruction of the Carthage in this War, Rome emerged as an unrivalled power in the western world.



Hannibal



Roman Empire

Tiberius Gracchus and Gaius Gracchus, though Patricians, voiced their opinion in favour of the poor peasants. As the peasants supported their programme, the Senators, shocked by this development, murdered both of them. The martyrdom of the Gracchus brothers played a decisive role in the transformation of the Roman Republic into the Roman Empire.

Transfer of Power from Consuls to Emperor

When Marius became Consul with the support of the *equites* (new rich or propertied class below the rank of Senatorial Class), he made an attempt to push through a land distribution bill in the Senate. This led to violence. The allies of Marius were killed. This resulted in a civil war between the followers of Marius and Sulla. After expelling Marius Sulla reigned for three years as a virtual dictator. He was killed and succeeded



Julius Caesar



Senate House

by Cinna and Catalina. Catalina's defeat led to mob violence. The Senate House was burnt down. Mobs took to streets to target the rich. This was the background against which Julius Caesar led his army across the Italian border and took power in 49 BC (BCE).

Slave Revolts

There were more slave revolts in Rome than in Greece. The revolt of Spartacus was the most famous. It began in 73 BC (BCE) involving about 70,000 slaves. The revolt threatened the power in Rome. Ultimately Spartacus was killed and the revolt crushed. 6,000 of the followers of Spartacus were executed.

Establishment of Principate

The civil wars over social issues ended only to be replaced by civil wars between Generals. Marius and Cinna against Sulla, Pompey against Julius Caesar, after Caesar's death Brutus and Cassius against Mark Antony and Octavian (Caesar's nephew) and finally Octavian against Mark Antony. The rich, old and new alike, felt that allowing Octavian, now called Augustus, to establish a de facto monarchy was the only way to re-establish political stability. The period starting from Augustus (27 BC (BCE)) is known as Principate. Augustus called himself Imperator, equivalent to the English word Emperor.



Augustus

Society under Principate

During the period of Principate, the imperial ruling class became far more prosperous than under the republic. The period witnessed a great influx of luxury goods such as silk, spices, and gems from the east. Cities were built on a grand scale, with temples, theatres, stadia and colosseum, gymnasia, aqueducts, baths and markets. The rich people distracted the attention of the poor by organizing games and contests in circuses, where the gladiators were forced to fight and kill each other.

The most distinguished writers of the **Augustan Age** brought glory to the empire.

Pliny the Elder completed a voluminous encyclopaedia of “science.” He called it *Natural History*. Seneca was another well known author of an encyclopaedia of science. Horace in his *Odes* developed a philosophy that combined Epicurean justification of pleasure with Stoic bravery in the face of trouble. Livy was more a prose stylist than a historian. The best known historian was Tacitus. Virgil's *Aeneid* glorified Roman imperialism. The Roman law attained its highest stage of development during the Principate.



Colosseum

After the death of Augustus in 14 AD (CE) Rome had few enlightened and capable rulers. With the exceptions of **Trajan** (98–117), **Antoninus Pius** (138–161) and **Marcus Aurelius** (161–180), all others were tyrants. Marcus Aurelius stands apart from all others. As a philosopher, he authored many books. He was the first Roman Emperor to send an embassy to China and establish contact with an Asian power.

External Invasions and the Decline of Roman Empire

The empire, facing threats from “barbarian incursions,” depended on expensive mercenary armies. In AD (CE) 330 the centre

of the empire moved from Italy to the Greek speaking city of Byzantium. But it was difficult to rule the western parts from such a distance. In 410 A.D. (C.E.) the Goth Alaric led his forces to sack Rome. The Frank Clovis took control of Gaul. The Ostrogoth Theodoric proclaimed himself the emperor of Rome. The final onslaught came from Vandals. In 476 A.D. (C.E.), disgusted by the rule of Emperor Romulus Augustus, the Roman army led by Odovacer revolted and deposed him. This marked the end of Western Roman Empire.

Barbarians: A group of people from a very different country or culture that is considered to be less culturally advanced and more violent than their own.



1.3 Empire Building in East Asia: China

Fall of Chin Dynasty

Wang Cheng, popularly known as **Shih Huang Ti** (meaning the first emperor), ended the age of warring states in China. He crushed all local rulers and established a strong central government. However, uprisings of the peasantry, unlike in other cultures, occurred again and again in China. Such uprisings led to the collapse of Chin dynasty.

Han Dynasty and Expansion of Chinese Territories

Han dynasty (206 BC (BCE) - AD (CE) 220, founded by Liu Pang, flourished for 400 years. Their capital was Chang-an. The most popular and powerful ruler was **Wu Ti**. His generals succeeded in driving away the Huns in the north. Thus the Han Empire once again threw open the silk road for trade. A large export trade,



mainly in silk, reached as far as the Roman Empire.

The trade route from China to Asia Minor and India, known as the *Silk Road* or *Silk Route*, linked China with the West. Goods and ideas between the two great civilizations of Rome and China were exchanged through this route. Silk went westward, and wools, gold, and silver went east. China received Buddhism from India via the Silk Road.



Woven silk

In the north, artisans and herders of rival “barbarian” dynasties brought in new techniques like the methods of harnessing horses, use of saddle and stirrup, techniques of building bridges and mountain roads, and seafaring. Such innovations made Han Empire prosperous. At the beginning of the Christian Era, the Han Empire rivalled that of Rome in size and wealth.

Buddhism came to China from India during the reign of Han dynasty. With Buddhism came the influence of Indian art to China and from China this spread to Korea and from there to Japan. Some of the Buddhist art of the time show the impact of Hellenistic styles.



Buddha (China)

Han emperors found it extremely difficult to control the big land owners. So after some decades of consolidation, China saw the emergence of several rival kingdoms marked by civil wars in north China. People abandoned their homes and farms, and fled from there to the Yangtze region and beyond. The period after Han ruled witnessed political instability across the country.

1.4 Rise of Christianity

After a brief period of glory in the days of David and Solomon, the Jewish people had a great fall and experienced extreme hardship. While spreading out all over the Roman Empire and elsewhere, they hoped that a Messiah would arrive to restore their pristine glory. Initially they laid much hopes on Jesus. Jesus was against the rich and the hypocrites, and condemned certain observances and ceremonials. This was not to the liking of the priests, who turned against Jesus and handed him over to the Roman Governor Pontius Pilate. Looked upon as a political rebel by the Roman authorities, Jesus was tried and crucified.



Jesus addressing his followers

After Jesus's crucifixion, St Paul started spreading the Christian doctrine. Paul succeeded in his effort and Christianity gradually spread. Romans were prepared to tolerate Christianity. But the refusal of the Christians to pay respect to the Emperor's image was viewed as political treason. It led to the persecution of Christians. Their

property was confiscated and they were thrown to the lions. Yet the Roman Empire did not succeed in suppressing Christianity. One of the Roman emperors Constantine himself became a Christian. Christianity thus became the official religion of the Empire.

1.5 Byzantium

The Byzantine emperors, who ruled from the city of Constantinople for about 1,000 years, called themselves Romans. But their language was Greek. The splendour of Constantinople with its luxurious royal palaces, its libraries, its scholars familiar with the writings of Greeks and Romans and its fascinating St. Sophia Cathedral are the legacies they have left behind.

However, in terms of development of science and technology, there was no progress during this period. The economies of the Empire's provinces were in the hands of large local landowners. The small peasants always lived on the edge of poverty. The fundamental weakness

St. Sophia Cathedral

St. Sophia Cathedral was built in mid-sixth century AD (CE). The most magnificent building in Europe at that time, it was known for its innovative architectural techniques. This Cathedral was turned into a mosque by the Ottoman Turks when they captured Constantinople.



St. Sophia Cathedral

of Byzantine Civilization stood exposed when the participants of Fourth Crusade pillaged it and ruled it. The tottering empire finally fell to the Ottoman Turks in 1453.

SUMMARY

- The Greeks fought patriotically and repulsed the invasion of Persians.
- Athens rejected monarchy and oligarchy, and opted for “democracy.”
- During the reign of Pericles, Athens was in a higher plane of civilization.
- After the death of Alexander, Science, Mathematics and Philosophy reached its peak in the Greek-Egyptian city of Alexandria, heralding a new Hellenistic era.
- By the late 6th century BC (BCE), Rome became prosperous and developed into a republic.
- Class wars between Patricians and Plebeians, and slave revolts led to emergence of Rome as an Empire.
- The period of Principate in general and Augustus in particular witnessed rich contribution of Romans to science, engineering, architecture and sculpture.
- Internal crisis and invasion of Franks, Goths and Vandals ended the Roman Empire.
- Romans carried on their civilization in the East with Constantinople as capital. This is called Byzantine Civilization.
- Christianity became a state religion of Byzantium and began to spread in Europe.

GLOSSARY

infidel	–	மத நம்பிக்கையற்ற
aqueduct	–	வாய்க்கால்
heathen	–	கிறித்தவரல்லாதவர்
ecclesiastical	–	திருச்சபை சார்ந்த
illustrious	–	ஒப்பற்ற
oligarchy	–	செல்வர்களின் குழுஆட்சி
ill-afford	–	முடியாத
antagonize	–	பகைத்துக்கொள்
empirical knowledge	–	சான்றுகள் அடிப்படையில் பெற்ற தரவுகள்
bureaucracy	–	அரசு அதிகாரவர்க்கம்
dynamism	–	செயலாற்றல்
chronically	–	தொடர்ந்து இருக்கிற
enslaved	–	அடிமைப் படுத்தப்படல்
impoverishment	–	ஏழ்மையாக்கு
martyrdom	–	கொள்கைக்காக உயிர்த் தியாகம் செய்தல்
de-facto	–	உண்மையான
embassy	–	நாட்டுத் தூதுவரின் அலுவலகம்
incursions	–	திமர் தாக்குதல் (அ) திமர் படையெடுப்பு

EXERCISE

I Choose the correct answer

- _____ is the Greek city-state which resisted the Persians to the end.
 (a) Acropolis (b) Sparta
 (c) Athens (d) Rome
- The other name for Greeks was _____
 (a) Hellenists (b) Hellenes
 (c) Phoenicians (d) Spartans
- The founder of Han dynasty was _____
 (a) Wu Ti (b) Hung Chao (c) Liu Pang (d) Mangu Khan
- _____ was the Roman Governor responsible for the crucifixion of Jesus.
 (a) Innocent I (b) Hildebrand (c) Leo I (d) Pontius Pilate
- The Peloponnesian War was fought between _____ and _____
 (a) Greeks and Persians (b) Plebeians and Patricians
 (c) Spartans and Athenians (d) Greeks and Romans



II Find out the correct statement

1. (i) First Persian attack on Greece failed.
(ii) The downfall of Roman Empire is attributed to Julius Caesar.
(iii) The Barbarians who invaded Rome were considered to be culturally advanced.
(iv) Buddhism weakened the Roman Empire.
(a) (i) is correct (b) (ii) is correct (c) (ii) and (iii) are correct (d) (iv) is correct
2. (i) Euclid developed a model for the motion of planets and stars.
(ii) Romans established a republic after overthrowing Etruscans.
(iii) Acropolis became a famous slave market.
(iv) Rome and Carthage united to drive out the Greeks.
(a) (i) is correct (b) (ii) is correct (c) (ii) and (iv) are correct (d) (iv) is correct.
3. (i) Silk road was closed during the Han dynasty.
(ii) Peasant uprisings posed threats to Athenian democracy.
(iii) Virgil's *Aeneid* glorified Roman imperialism.
(iv) Spartacus killed Julius Caesar.
(a) (i) is correct (b) (ii) is correct (c) (ii) and (iv) are correct (d) (iii) is correct.
4. (i) Roman Emperor Marcus Aurelius was a tyrant.
(ii) Romulus Aurelius was the most admired ruler in Roman History.
(iii) Fabius was a famous Carthaginian General.
(iv) Tacitus is respected more than Livy as a historian.
(a) (i) is correct (b) (ii) is correct (c) (ii) and (iii) are correct (d) (iv) is correct.
5. (i) Buddhism went to China from Japan
(ii) After crucifixion of Jesus, St Thomas spread the Christian doctrine
(iii) St Sophia Cathedral was the most magnificent building in Europe
(iv) Trajan was one of the worst dictators Rome had.
(a) (i) is correct (b) (ii) is correct (c) (iii) is correct (d) (iv) is correct.

III Match the following

1. Acropolis - Consul
2. Plato - Athens

3. Marius - Philosopher
4. Zeus - Materialist
5. Epicurus - A fortified city

IV Fill in the blanks

1. Greeks defeated the Persians at _____.
2. _____ stood in favour of poor peasants in Roman republic.
3. Buddhism came to China from India during the reign of _____ dynasty.
4. The most magnificent building in Europe was _____.
5. _____ and _____ were Magistrates in Rome.

V Answer all questions given under each heading

1. Emergence of Rome as an empire
 - (a) Who were the Gracchus brothers?
 - (b) What role did they play?
 - (c) What was the outcome of their martyrdom?.
 - (d) Who was the first Roman Emperor?
2. Han Dynasty
 - (a) Who was the founder of Han Empire ?
 - (b) What was the capital of Han Empire?
 - (c) Where did they have their new capital?
 - (d) Who was the powerful ruler of the Han dynasty?

VI Answer the following briefly

1. Attempt an account of slavery in Rome.
2. Highlight the main contribution of Constantine.
3. What do you know of the Carthaginian leader Hannibal?
4. What were the reasons for the prosperity of Han Empire?
5. Write about St. Sophia Cathedral.

VII Answer the following in detail

1. Discuss the rise and growth of Athens, pointing out its glorious legacy
2. Highlight the contributions of Rome to World Civilization

Activities for Students

1. In an outline map of Europe, the students are to sketch the extent of Western and Eastern Roman Empire.
2. Students are to be guided by teachers to Google the architectural splendours of classical civilizations of Greece, Rome and China.

Assignment with Teacher's guidance

1. Preparing albums, with masterpiece arts of Greeks, Romans, Byzantines, and Chinese.
2. Writing the brief biography of the distinguished Roman Emperors.



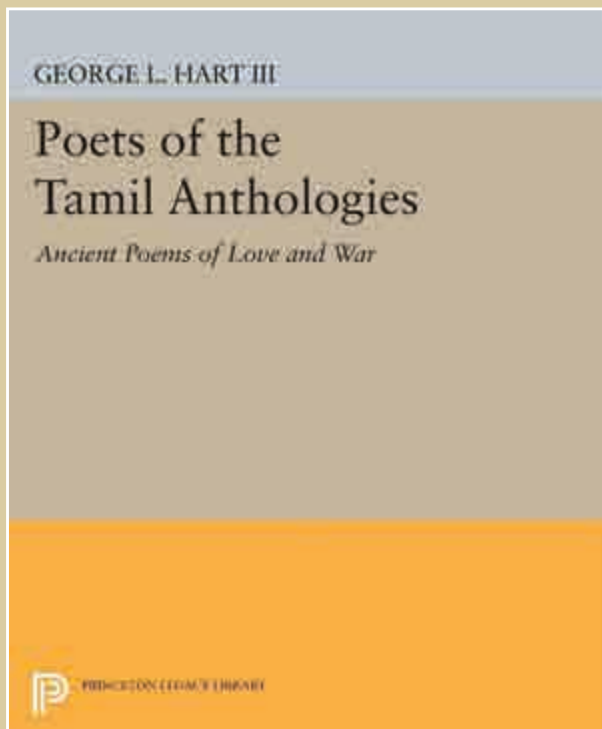
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India during the Classical Period



The Kushan period corresponded with the last days of the Roman Republic, when Julius Caesar was alive. The Kushan Empire is said to have sent an embassy to Augustus Caesar who succeeded Julius.



Eighteen major works of Sangam age Viz eight Anthologies (Ettuthogai) and Ten Idylls (Pathupattu) compiled during the first three centuries of common Era were composed during this period. Sangam Literature hailed as first secular literature of India.



The corresponding period 4th and 5th A.D. (C.E.) in south India, characterized as Kalabhra period. Teakwood, pepper, pearls, ivory, brocades and precious stones and the like were exported from the Malabar Coast to Babylonia, Egypt, Greece and Rome. Trade with Rome further flourished.



ICT CORNER

The Classical World

Let us learn Greek civilization through this game.



- Step 1:** Use the URL/QR code to open the activity page “Adventures in Ancient Greece”. Click the 'OK' button and type your name to start the activity.
- Step 2:** Type the needed notes on the 'note scroll', shown in the right side. “Timeline, Map, Athens”, options are given below.
- Step 3:** Click ‘Timeline’, a match board will appear. Drag the options from right side window and ‘Submit’. Some important cities and the life style of Greek people are given in “MAP”.
- Step 4:** Click 'Quiz' and answer the questions.



Step 1



Step 2



Step 3



Step 4

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UNIT

2

The Middle Ages


 Learning Objectives

- To learn about the empires of China during the reign of Tang, Sung and Yuan dynasties
- To understand the evolution of Japanese society under the Fujiwara Family and Kampakara Shogunate
- To trace the background of the birth of Islam
- To acquire knowledge of Arab and Ottoman Empires and their contribution to the spread of Islamic culture
- To analyse the characteristics of Feudalism in the Middle Ages
- To understand the relationship between the State and the Church in the Middle Ages



Introduction

Historians call the period between the end of the Roman Empire in 476 A.D. (C.E.) and the capture of Constantinople by the Turks in 1453 A.D. (C.E.) as the Middle Ages. The Middle Ages has been further classified as early, central or high and later. In the early Middle Ages (approximately fifth to tenth century), Christianity, followed by Islam, began to establish themselves as dominant religions of continental Europe. The central or high Middle Ages witnessed rapid development, marked by

territorial expansion, demographic and urban growth, and the restructuring of secular and ecclesiastical institutions. The later Middle Ages was represented by the feudal system. This was followed by a period of decline and decay.

After centuries of disunity China was reunited in 589 A.D. (C.E.) by the Sui dynasty. The history of Arab civilization that began a little later than the history of Byzantium covers a period roughly from 630 A.D. (C.E.) to 1300. Known as Saracenic civilization it was the centre of

a new religion and its impact on Christian Europe was responsible for revolutionary social and intellectual changes. This new religion united the people and urged them to work in a common cause. Some of the Saracens were Jews, some were Persians, some were Syrians. Nevertheless, the founders of the civilization were Arabs.

Seljuq Turks were a tribe of Tartars from Central Asia. They established a powerful empire in Persia. Their reign was one of great progress in literature, art and architecture. Similarly the Ottoman Turks who moved Anatolia (Asia Minor) and established an independent empire contributed to science and technology in a big way.

EAST ASIA IN THE MIDDLE AGES

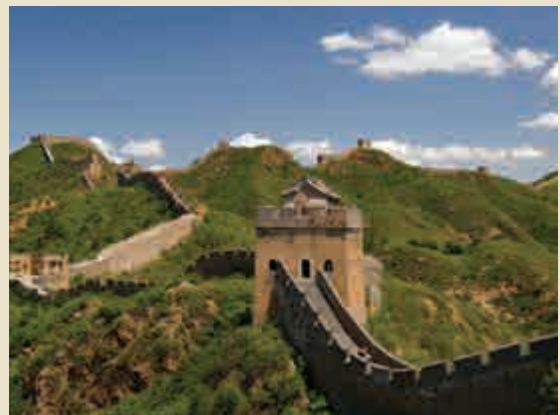
2.1 China: T'ang Dynasty (618–907 A.D. (C.E.))

Sui dynasty collapsed in forty years because of financial burden imposed by public works like the Grand Canal and the expensive wars waged to conquer northern part of Korea. The T'ang dynasty rose from the widespread rebellions that took place to establish a strong centralised empire. Li Yuan who organised the rebellion made Yang You the emperor of China. As Yang was killed by one of his royal officials, the Chancellor, Li Yuan proclaimed himself emperor. Several hundred kilometres of the Great Wall were rebuilt along the north-west frontiers. Military campaigns extended the empire's influence into Korea in the east and as far as the borders of Persia and Indo-China in the west.

Tang dynasty undertook enormous public works. Two capital cities, Boyang and Chang-on, were built. Scholar officials, trained in Confucius Philosophy, were appointed to counterbalance the landowning aristocratic class. Land was

divided into small peasant holdings. As a result, the agricultural surplus went to the state as taxes, not to the aristocrats as rents. State monopoly of salt, and tea added to its revenues. However, the mutiny by a frontier general An Lu-shan, led to years of turmoil. The imperial authority was very much reduced during this period, as power passed to the provinces.

Great Wall of China: Between 8th and 7th centuries B.C. (BCE), the warring states in China built defensive walls to protect themselves from enemies from the north. During Chin (Qin) Dynasty, the separate walls were connected and consequently the wall stretched from east to west for about 5000 kilometres. This wall, considered to be one of the wonders of the world, served to keep nomadic tribes out. The Wall was further extended and strengthened by the succeeding dynasties. Now it is 6,700 kilometres in length.



Sung Dynasty (960–1279 A.D. (C.E.))

The rebellion of hard-pressed peasantry under the leadership of Hung Ch'ao dealt a death knell to the tottering Tang empire. The empire split into five rival states, until it was reunited under a new dynasty, Sung. Trade and industry flourished during the reign of Sung dynasty. Iron and steel industries became highly organized.

The quantity of iron China produced in 1078 A.D. (C.E.) exceeded 114,000 tons (England produced only 68,000 tons even in 1788). China excelled in ceramics and porcelain-making. This technique was not known to Europe for another 700 years. Gun powder was in use by 1044. China possessed printed books half a millennium before Europe. (Chris Harman, *A People's History of the World*, p. 111.)



Fall of Sung Dynasty

Sung period was also a period of great prosperity to the landowning class, officials and rich merchants. The peasants, by contrast, had to suffer grinding poverty. Before any internal crisis could develop, there were two external invasions from the north that ended the Sung dynasty. The Mongols established their rule in the name of Yuan dynasty.

Yuan Dynasty (1279–1368 A.D. (C.E.))

The Mongols, who overran Persia and the whole of Central Asia, did not spare China either. Mangu Khan became the Great Khan in 1252 who appointed Kublai Khan the Governor of China. The Mongol presence from one end of Eurasia to the other played a key role in spreading Chinese technological advances to the less developed societies in the west. Though the Mongol court in Beijing impressed a foreigner like Marco Polo, the poverty of peasantry continued. There were revolts of religious sects and secret societies. Finally, the leader of “**Red Turbans**” Chu Yuan Chang took the Mongol capital

Beijing and proclaimed himself emperor in 1369.



Kublai Khan



Mongol Court

Ming Empire (1368–1644 A.D. (C.E.))

The Ming Empire, which replaced the Mongol empire, consciously discouraged industry and foreign trade in order to concentrate on agriculture. This resulted in China lagging behind in the 16th century. Other parts of Eurasia, building on the techniques of the Chinese, began to march ahead.

2.2 Japan

Many of ancestors of the Japanese came from Korea and some from Malaysia. It was through Korea that Chinese civilisation reached Yamato (Yamato was the original name of Japan). The original inhabitants of the country (aborigines) are known as “Ainus.” The original religion of Japan was Shinto. It was a mixture of nature and ancestor worship.



Shinto Religion

Japan remained in isolation for many centuries. This gave them the benefit of enjoying freedom from invasions.

Buddhism came through Korea. In 555 AD (CE), the ruler of one of the three kingdoms in Korea sent Buddhist missionaries to Yamato with a gift of a golden image of Buddha to its ruler. Initially there was a conflict between the new Buddhism and the old Shinto. But soon they began to coexist. During the Tang dynasty, there were constant contacts between China and Japan.



Japan's name was given by a Chinese Emperor. In a message sent by the Chinese Emperor the Emperor of Japan was addressed as Tai-Nyih-Pung-Kok, meaning Great Sun-Rise-Kingdom. The Japanese thought that this sounded better than Yamato. So they began calling their country "Dai Nippon"- the land of the Rising Sun. Nippon became Japan.

In Japan also the leading families opposed and fought each other to gain power. Their emperor Mikado was an autocrat but a puppet in the hands of a few powerful families. The first great family that controlled the state was the Soga family. Shotoku Taishi was the leader. He made the central government strong. By 600 AD (CE) he had made the various clan chiefs and nobles subordinates to the Emperor.

After the death of Shotoku Taishi, his family was driven out by Nakatom no Kamatari, the founder of the Fujiwara family. Kamatari adopted many Chinese methods and made the central government further strong. He made Nara the capital. From 794 AD (CE) Kyoto remained the capital for more than one thousand years until it was replaced by Tokyo. Fujiwara family emperors in later years retired to monasteries and lived as monks. Yet they continued to exercise authority.

During the two-hundred-year rule of Fujiwaras, a new class of large

landholders emerged. These landholders were also military men, called Daimyos (meaning great names-lords). The Daimyos became powerful with their retainers and armies. Involved in personal fights, they ignored the central government in Kyoto. Out of the fight between two chief families, the Taira and the Minamoto, Yoritomo emerged successful. In AD (CE) 1192, the emperor gave him the high sounding title of Sei-i-tai-Shogun, which means the Barbarian-subduing-Great-General. The title carried full power to govern hereditarily. The Shogun became the real ruler. In this way began the rule of Shogunate.

Yoritomo established his military capital at Kamakura. Therefore, the first Shogunate is called the Kamakura Shogunate. Japan followed China in all spheres of life but in its own way. The emperor became a ceremonial head. The government was a feudal military government administered by *samurai* or warriors. The Mongols, who changed the course of history in Asia and terrified Europe, were successfully repulsed by the Japanese under this Shogunate. Yet the decline of the ruling dynasty started and in 1338 AD (CE), the Kamakura Shogunate ended. A new line of Shogunate came to power known as Ashikaga Shogunate that lasted for 235 years. But this was a period of conflict and war. Three men ultimately rescued Japan from the prolonged civil war. They were Borbunaga, a Daimyo or noble, Hideyoshi, a peasant and Tokugawa Iyeyasu, one of the distinguished nobles of the time. By the end of 16th century the whole of Japan was again united.

2.3 Islam and the Rise of Islamic Empires

Prophet Mohammad established Islam. Islam gave a message of brotherhood.

Mohammad laid stress on the equality of all those who were Muslims. This message of equality and brotherhood had great appeal not only for the Arabs, who were divided into warring tribes, but also for people in other parts of the world. However, faced with persecution in his place of birth, Mohammad and his followers moved to the city of Yethrib. The flight of Mohammad from Mecca in 622 AD (CE) is called *Hijrat* in Arabic. In honour of his coming, the people of Yethrib renamed the city to Madinat-un-Nabi-the city of the Prophet. It is now known as Medina. Mohammad died ten years after the *Hijrat* (AD (CE) 632). By the time of his death, united under a common faith, the Arabs became a powerful force.



Mecca

2.3(a) Arabian

Abu Bakr and Omar who succeeded Prophet Mohammad as *Khalif or Caliph* (both religious and temporal leader) laid the foundation for an Islamic Empire. In a short period of time, the Arabs defeated both the Eastern Roman Empire and the Sassanid King of Persia. Jerusalem, the holy city of Jews and Christians, was won by the Arabs, and the whole of Spain and Persia came under the new Arab Empire.

Islam advocated simplicity and equality. These two ideas impressed people fed up with the old order of oppression and exploitation. The Arabs easily overran many

regions. Egyptians had suffered much under the Roman Empire and so they opted for Arabs. Led by the General Tariq, the Arabs, after conquering Morocco and Africa, crossed into Europe and took Spain which they ruled for many hundreds of years. The Arabs, until then largely nomads from the deserts, became the rulers of a mighty empire. They were called Saracens (from *sahra* and *nashin* - the dwellers of the desert).

Birth of Sunni and Shia Sects

The quarrel for the leadership of Arabia led to a division in Islam. The two sects formed out of the division were the Sunnis and Shias. The Sunnites, Sunni Muslims, maintained that the head of the Islamic state and successor to the Prophet should be elected by representatives of the whole body of believers. The Shiites, the followers of Shia sect, opposed elevation to any highest political and religious office other than those related to the Prophet by blood or by marriage.

Rule of Omniad or Umayyad dynasty

The Caliphs, belonging to a branch of Mohammad's family, known as Omniads or Umayyads ruled for about 100 years. Damascus was their capital. They developed a new style of architecture known as Saracenic architecture. The arches, the pillars, and the minarets and domes came to India later and blended with Indian ideas.



Saracenic Architecture

The Muslim Arabs carried Islam far and wide. But while they were fighting at distant lands, the Arabs at home were quarrelling. Ali, the son-in-law of Prophet Mohammad and his son Hussein were murdered. **Umayyads** were overthrown by Abbasids. This branch descended from Prophet Mohammad's uncle Abbas and hence his followers were called Abbasids.

Rule of Abbasids

Abbasid rule began in 750 A.D. (C.E.) assuming the title of "the Commander of the Faithful", Abbasid Caliph wielded authority as any other Emperor. The Abbasids tried to rival the old empires in splendour. The capital was shifted from Damascus to Baghdad in Iraq.

Baghdad- a city known as the city of Arabian Nights, 'was a vast city of palaces and public offices and schools and colleges, and great shops and parks and gardens. The merchants carried on a vast trade with the East and West.... Visitors came to Baghdad from all over the world, especially learned men and students and artists Nehru, *Glimpses of World History*.



Baghdad City

Arabs' Scholarly Pursuits

Abbasid Caliphs did not attempt to conquer new lands. Instead they tried to consolidate the Empire. They were more interested in scholarly pursuits. The Arabs had a scientific spirit of inquiry. In some subjects like medicine and mathematics they learnt much from India. Many Arab students went to Takshashila, which was still a great university for specialized medicine. Indian scholars and mathematicians came in large numbers to Baghdad. Sanskrit books on medicine and other subjects were translated into Arabic. In medicine and surgery, Arab physicians and surgeons earned a great reputation.

2.3(b) Disintegration of Arab Empire and Rise of Seljuq Turks

The Abbasid Empire was at the height of its glory during the reign of Harun-al-Rashid. Soon after his death, the Arab Empire started disintegrating. Independent kingdoms

arose everywhere. The Caliph became more and more powerless to control those kingdoms. The Turks (known as Seljuq Turks), who had become Muslims, succeeded in taking possession of Baghdad. They also defeated the Byzantine army of Constantinople and posed a challenge to the European states. The Christian pilgrims to the holy city of Jerusalem were put to a lot of hardships by the Turks. The resultant conflict led to the Crusades.



their attention towards the advancing Mongols, led by **Chengiz Khan**. The destruction of Baghdad in 1258 A.D. (C.E.), by the Mongols, put an end to what remained of the Abbasid Empire.



Jerusalem

2.3(c) Crusades and Fall of Seljuq Turks



Crusade

The Pope and the Church called upon all the Christian peoples of Europe to march to the rescue of the “holy city” (Jerusalem). The Crusaders had to fight against the Seljuq Turks who controlled those parts. The struggle between Christianity and Islam beginning in 1095 continued for nearly 200 years and is called the Crusades.

The Crusades did not achieve the desired end. Jerusalem continued to remain in Ottoman hands for another 700 years. This continuous fighting associated with Crusades weakened the Seljuq Turks. The Mongol invasion from the East side-lined this cause and Christians and Muslims alike started shifting

2.3(d) Impact of Crusades

Crusades ended the feudal relations. Many of the nobles who went to East to take part in the Crusades either stayed too long a period or did not return. The serfs took advantage of their absence to break away from their bondage to the soil. Increasing demand for products of the East led to expansion of trade. *Venice*, *Genoa* and *Pisa* emerged as important commercial centres in the Mediterranean region. Constantinople ceased to be the middle man in the trade between the East and the West. The elimination of powerful nobles had its influence in strengthening the monarchy in France and England. One notable outcome of Crusades was the loss of prestige suffered by Pope and Papacy.



Mongols and Chengiz Khan

Mongols were nomads. They came into Europe from the Steppes of Asiatic Russia. They were herdsmen. The Mongols were experts in warfare and produced a remarkable chief, Chengiz Khan.



Chengiz Khan

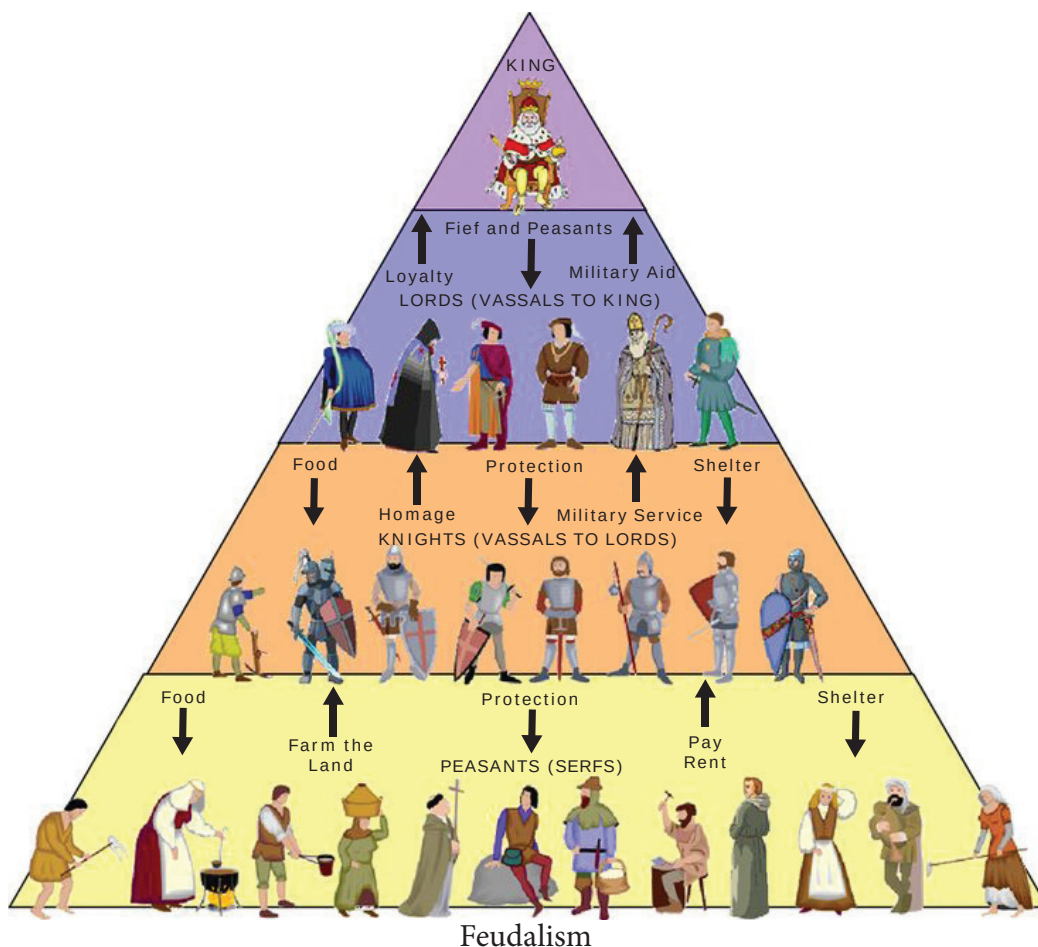
He was a great military genius. His religion was Shamanism, a worship of the "Everlasting Blue Sky. Mongols' hold over Russia for about 300 years made Russia technologically backward from the rest of Europe until the end of Middle Ages."

2.4 Ottoman Empire

When the Mongols advanced across Asia, Ottoman Turks (different from Seljuq

Turks) fled and took asylum under Seljuqs in western Asia. But when the Seljuq Turks weakened, the Ottomans extended their power. They crossed over to Europe and occupied Bulgaria and Serbia, and made Adrianople their capital. Instead of directly attacking Constantinople they surrounded it and were biding their time. The conquest of Constantinople in 1453 A.D. (C.E.) by Mohammad II, helped establish Ottoman supremacy in the Balkans, Black Sea and the Middle East.

For some time, Ottomans were strong and Christian Europe was scared of them. After conquering Egypt, they assumed the title of Caliph. They became a major player in the international power politics of the day. Though weakened during the 19th century it formally ended only with World War I.



2.5 Feudalism

2.5 (a) State

Despite the hold of powerful religions such as Christianity and Islam, the economic life of people was governed by feudal relations.

In the prevailing anarchy and violence, the mighty living in strong castles seized whatever they could and the poor peasants and labourers suffered. The latter were not organized to defend their interests. There was no strong central government either to protect them. Out of this chaos and disorder evolved the feudal system.

The king, supposed to represent God on earth, was at the head of the feudal regime. Immediately after him were the great nobles, known as dukes, counts, earls. The relationship was one of a vassal. The nobles in turn had vassals of their own, dividing and distributing their *fief* to lesser nobles called

viscounts or barons. Last in this order were the knights, whose fiefs could not be divided. At the bottom were the villeins or serfs.

In the feudal system which centred around vassalage, there was no idea of equality or freedom. There were only rights and obligations. The Bishops, Abbots and Cardinals and the Church came under this socio-political structure. The nobility and the clergy did not do any physical work. So the burden of producing the food and other necessities of life fell on the peasants and artisans.

Fief was a piece of land given to someone by their lord, to whom they had a duty to provide particular services in return.

There was also a class of traders. Traders and artisans were not brought under the feudal system. The merchants and artisans formed guilds and groups. In course of time they became wealthy enough to defy even the

nobles and the kings. This development led to the end of feudal system.

2.5 (b) Church

During the later Middle Ages, Christianity underwent many significant developments. The most important were in matters of doctrine and religious practices. New elements were included in Christian theology. They were the theory of priesthood and the theory of sacraments. These two elements increased the power of the clergy. These two elements also helped the Church to extend its authority over all of its lay members. Excommunication and Interdict were the two instruments used against those who defied the Church.

Excommunication meant depriving a person of all the privileges of a Christian. He was denied the right to sacraments in Church. His or her body could not be buried in the consecrated ground. **Interdict** was to deny benefits of religion to a ruler's subject, intended to kindle their resentment against him.

The growth of the Church in the later Middle Ages was accompanied by the rise of ambitious political leaders. The conflict between secular and spiritual authorities became inevitable. In the conflict between German Emperor Henry IV and Pope Gregory VII, Pope by means of Interdict succeeded in making the emperor to abdicate the throne. By means of interdict Pope Innocent III forced King John to recognize England and Ireland as fiefs of the papacy. Many pious Christians now began to resent Pope's intrusion into state affairs.

SUMMARY

- China which rivalled Rome during the Christian era, after experiencing political instability, accomplished unity and was ruled by the Sung dynasty for about three centuries.
- Sung dynasty was overthrown by the Mongols who established Yuan dynasty in China.
- Japan, which remained in isolation, joined the mainstream in the sixth century AD (CE) with Mikado becoming its emperor. Japan followed China in all walks of life.
- The emperors slowly lost their control and the government was taken over by the military general, who founded the Kamakura Shogunate.
- Kamakura Shogunate was replaced by Ashikaga Shogunate.
- Islam, established by Prophet Mohammad, began to spread.
- Arabs who took to Islam early succeeded in establishing Islamic kingdom first in Spain and later in other parts of Europe.
- Ummayyads ruled from Damascus, while the Abbasids from Baghdad.
- The fight for the leadership of Arabia after the death of Prophet Mohammad led to division in Islam as Sunni and Shia.
- The architecture developed by Arabs is known as Saracenic.
- The takeover of the holy city of Jerusalem by Seljuq Turks resulted in the Crusades.
- The weakening of Seljuq Turks led to the rise of Ottoman Turks.
- The capture of Constantinople by Ottoman Turks ended the Middle Ages.
- Day to day life of people in the Middle Ages was governed by the Feudal System, a form of government involving lords and vassals.
- The Church which functioned under the feudal regime began to assert its authority first in ecclesiastical and later in secular matters too.

GLOSSARY

intrusion	–	தலையீடு
mercenary	–	கூலிப்படை
onslaught	–	கடுந் தாக்குதல்
disgusted	–	வெறுப்படைதல்
observances	–	கடைபிடிக்கப்படுபவை
pillage	–	கொள்ளையடி
saddle	–	சேணம்
stirrup	–	குதிரையோட்டி காலை வைத்தற்குரிய வளையம்
realm	–	அதிகார எல்லை
retainers	–	அடியாட்கள்
turmoil	–	குழப்பம்
repulse	–	விரட்டியடி
interdict	–	சமயச் சடங்குகளைத் தடை செய்
sacraments	–	கிறித்தவ மதச் சடங்குகள்

EXERCISE

I Choose the correct answer

- _____ was the old religion of Japan
 (a) Shinto (b) Confucianism
 (c) Taoism (d) Animism
- _____ means great name/lord.
 (a) Daimyo (b) Shogun (c) Fujiwara (d) Tokugawa
- The Arab General who conquered Spain was _____
 (a) Tariq (b) Alaric
 (c) Saladin (d) Mohammad the Conqueror
- Harun-al-Rashid was the able emperor of _____
 (a) Abbasid dynasty (b) Umayyad dynasty
 (c) Sassanid dynasty (d) Mongol dynasty
- Feudalism centred around _____
 (a) vassalage (b) slavery (c) serfdom (d) land

II Find out the correct statement

- (i) Chengiz Khan was an intolerant person in religion
 (ii) Mongols destroyed the city of Jerusalem
 (iii) Crusades weakened the Ottoman Empire
 (iv) Pope Gregory succeeded in making King Henry IV to abdicate the throne by means of Interdict
 (a) (i) is correct (b) (ii) is correct (c) (ii) and (iii) are correct (d) (iv) is correct



2. (i) Mangu Khan was the Governor of China.
 (ii) Mongol court in China impressed Marco Polo.
 (iii) The leader of Red Turbans was Hung Chao.
 (iv) Mongols established their rule in China in the name of Yuan dynasty.
a. (i) is correct b. (ii) is correct c. (ii) and (iv) are correct d. (iv) is correct
3. (i) Boyang and Changan were built during Sung dynasty.
 (ii) Peasant uprisings led to the collapse of Tang dynasty.
 (iii) Seljuq Turks were a tribe of Tartars.
 (iv) Mongols established their rule in China in the name of Yuan dynasty.
(a) (i) is correct (b) (ii) is correct (c) (iii) is correct (d) (iv) is correct
4. Assertion (A): Buddhism went to China from India
 Reason (R): The earliest Indian inhabitants in China were the followers of Buddhism.
**a) A is correct; R is wrong
 b) Both A & R are wrong
 c) Both A & R are correct
 d) A is wrong R is irrelevant to A**
5. Assertion (A): The fall of Jerusalem into the hands of Seljuk Turks led to the Crusades.
 Reason (R): European Christian pilgrims were denied access to Jerusalem.
**a) A is correct; R is not the correct explanation of A
 b) A and R are correct
 c) A and R are wrong
 d) A is correct, R is the correct explanation of A**

III Fill in the blanks

1. _____ were the original inhabitants of Japan.
2. _____ was the original name of Japan.
3. _____ was the original name of Medina.
4. _____ were the barbarians posing a threat to the Chinese in the north.
5. _____ established Ottoman supremacy in the Balkans.

IV Match the Following

- | | | |
|------------------------------|---|------------------------|
| 1. Red Turbans | – | Kamakura |
| 2. Seljuk Turks | – | Mohammad II |
| 3. First Shogunate | – | City of Arabian Nights |
| 4. Baghdad | – | Chu Yuan Chang |
| 5. Capture of Constantinople | – | Central Asia |

V Answer all questions given under each heading

1. Shogunate in Japan

- (a) Name the two Daimyo families that fought for power in Japan.
- (b) Who emerged successful in the fight?
- (c) What was the title given by the Emperor to the victorious?
- (d) Where was the capital of the first Shogunate established?

2. Rule of Abbasids

- (a) Who were the Abbasids?
- (b) What was the title assumed by Abbasid Caliph?
- (c) Where did they have their new capital?
- (d) In whose period was the Abbasid Empire at the height of its glory?

VI Answer the following briefly

- 1.** The Great Wall of China.
- 2.** Contribution of Arabs to Science and Technology.
- 3.** Impact of Crusades.
- 4.** How was Feudalism organized in the Middle Ages?
- 5.** Write about the two instruments used by Medieval Pope to assert his authority.

VII Answer the following in detail

- 1.** Discuss the emergence of Japan under the Shogunate.
- 2.** Who were the Mongols? How did they rule China?

Activities for Students

- 1.** In an outline map of Europe, the students are to sketch the extent of Ottoman Empire at the height of its glory.
- 2.** Students are to be guided by teachers to look through Google the architectural splendours of Saracenic architecture.

Assignment with Teacher's guidance

- 1.** Sketching Ottoman family tree and attempting a biographical account of Saladin of Egypt and Suleiman the Magnificent of Ottoman Empire.
- 2.** Attempting an account of the Crusades led by Richard the Lion-Hearted of England and German Emperor Frederick Barbarossa.



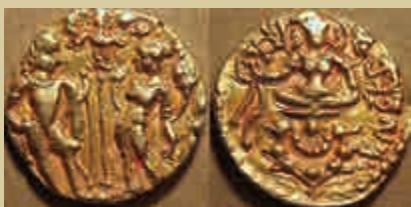
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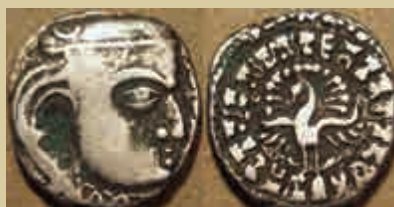
India in the Corresponding Period

The Huns

Around the time when Europe fragmented into multiple small Germanic kingdoms after the collapse of Roman Empire, the Huns (white), a fierce and warlike people from Central Asia, invaded Northeast India. Though they were repulsed by Skandagupta, they entered India after his death and settled all over Central India. Toramana and Mihirakula were the two well known Hun rulers in India. They persecuted Buddhists and burnt all the monasteries. Yasodharman of Malwa is credited to have ended the rule of Huns in India around 528 A.D.(CE).



Skandagupta's Gold Coin



Skandagupta's Silver Coin



Yashodharman Victory Pillar, Mandsaur

Chalukyas' (of Badami or Vadabi) relationship with Persia

The Chalukya kingdom existed contemporaneously with the rule of Sassanid dynasty in Persia. Khusrau II, the last great king of Sassanid dynasty, who had a close relationship with the Tang dynasty in China, and the Chalukya ruler Pulakesin II exchanged ambassadors. The Chalukya kingdom comprised the Maharashtra country with Badami as capital. Hiuen Tsang speaks highly of their courage. According to him, 'they are warlike and proud-spirited, grateful for favours and revengeful for wrongs'.



UNIT

3

State and Society in Medieval India

From the Cholas to the Mughals



Learning Objectives

To acquire knowledge of

- Successive dynasties and the resultant political outcomes from the times of the Cholas to the Mughals
- Influence of Islam and Islamic state on the socio-cultural life of the people
- Institutional and administrative changes during Chola, Pandya and Vijayanagara periods in the south
- Right and Left Hand Caste conflicts and changes in religious spheres on account of advent of European Missions
- Development of literature, art and architecture
- Transformation in agriculture and manufacturing sector
- Progress in maritime trade, commerce and urbanization



Introduction

We begin this chapter by defining the term 'medieval'. The periodization of history into 'ancient/classical', medieval' and 'modern' is conventionally used with reference to European history. In the context of Indian history, the use of these terms is more problematic. Therefore, historians have debated their relevance

in defining different periods of Indian history. For instance, the historian Burton Stein, uses the term 'classical' to describe the period up to the Gupta empire, and dates the 'medieval' period from the 7th century A.D.(CE) till the beginning of Mughal rule in the 16th century. The Mughal era, from the 16th to 18th century is referred to as the early modern period.

The political scenario in all parts of India underwent momentous, definitive changes which transformed the social and economic fabric and development of the country. Historians have now moved away from thinking of history as a linear narrative of kings and dynasties, and the events – mainly wars and military campaigns – which happened during their rule. History is now thought of in inter-disciplinary terms to comprise social and economic change. Nevertheless, such change does not happen autonomously without any reference to changes in the political structure. This is especially true for the period covered in this chapter.

Major Political Changes

- The expansion of the Chola empire from the time of Rajaraja which eclipsed the Pandyan and Pallava kingdoms, extending north till Orissa.
- From the twelfth century, the beginning of several centuries of Muslim rule in Delhi, extending throughout north India and the spread of Islam to different parts of the country.
- By the end of the 13th century the eclipse of the great empire of the Cholas and the consequent rise of many Religious kingdoms in south India. This ultimately culminated in the rise of the Vijayanagar empire



which exercised authority over all of south India and came to be considered the bastion of Religious rule in the south.

- The consolidation of Muslim rule under the Mughals in the north, beginning in 1526 A.D. (C.E.) with the defeat of the Ibrahim Lodi by Babur. At its height, the Mughal empire stretched from Kabul to Gujarat to Bengal, from Kashmir to south India.
- The coming of the Europeans, beginning with the Portuguese who arrived on the west coast of India in 1498.

3.1 Political Changes (1000–1700)

3.1(a) North India: The Advent of Islam

Muslim rule was established in Delhi at the end of the 12th century by **Muhammad Ghori**, but did not expand much beyond this core region for another hundred years. Muslim merchants and rulers were known in India for several centuries even prior to this. Arab Muslim merchants had been trading in the ports of the west coast, especially Kerala, as early as the 9th century. Similarly, Muslim invaders from west Asia had set up Sultanates in Gujarat and Sind since the 8th century. However, these contacts did not lead to any widespread exposure to Islam or Muslim rule in the rest of the country.

The impact of Muslim rule was felt during the reign of **Alauddin Khalji** (1296-1316 A.D. (C.E.)) who sent military campaigns to the south. The primary objective was to plunder the wealth, rather than to expand his territory. Devagiri (near Aurangabad) was captured by Alauddin Khalji. Renamed Daulatabad, it was the second stronghold of his growing kingdom. Alauddin Khalji's slave and

commander, Malik Kafur, was sent on military expeditions further south in the first decade of the 1300s A.D. (C.E.).

The Tughlaq kings who came after Alauddin also sent their armies to the south. As a result, the generally more isolated southern part of the country came into the orbit of the rulers of the north. Governors were appointed in various provinces in the Deccan region, and a Sultanate was even established in Madurai.



Muhammad bin Tughlaq

During the reign of Muhammad bin Tughlaq, there was a revolt in Daulatabad. Alauddin Bahman Shah set up the Bahmani sultanate in 1347 A.D. (C.E.), with his capital in Bidar. The Bahmani kingdom survived for nearly a century and a half, mainly due to the able administration of **Mahmud Gawan**, a great statesman and loyal minister. After his death, many viceroys declared their independence, and by the end of the fifteenth century, five sultanates came up in the Deccan: Bijapur, Golkonda, Ahmednagar, Berar, and Bidar. Bijapur and Golkonda were the largest of these sultanates and the region entered a phase of considerable economic growth and expansion of trade. The Deccan sultanates were conquered by Aurangzeb in the 1660s A.D. (C.E.), and the entire region, as far south as Madras (Chennai) became a part of the Mughal empire.

3.1 (b) The Chola Empire in the South

The territorial expansion of the Chola empire began under **Rajaraja I**. The Pallava kingdom had already been assimilated into the Chola kingdom. The Pandya kingdom remained independent, but was subservient to the Cholas. The empire expanded further under **Rajendra I** who had successfully taken his armies as far to the northeast as the river Ganges. He had also sent naval expeditions against the Sailendra Kingdom of Sri Vijaya (in Indonesia), Kadaram (Kedah) and Ceylon. This earned him the title “the Chola who had conquered the Ganga and Kadaram” (*gangaiyum kadaramum konda cholan*). Ceylon remained a province of the Chola empire for a few decades. The empire was further consolidated through marriage with the eastern Chalukyas under Rajendra’s grandson **Kulottunga I**, and extended up to the border of Orissa.

Maritime trade with south-east Asia and China expanded greatly during the Chola period. The continued interaction with Tamil merchants resulted in the spread of the influence of Indic culture and art into south-east Asia, as seen in the magnificent temples of Angkor Wat in Cambodia.

3.1 (c) Vijayanagar and South India after the Cholas

The Chola Empire began to decline after the middle of the 13th century. The last known Chola emperor was Rajendra III. The empire died out in 1279 A.D. (C.E.). Several power centres came up after this in the region. Further to the south, the Pandya kings again sought to regain the glory they had lost under the Cholas. Many brilliant Pandya



kings like Jatavarman Sundara Pandyan ruled at the end of the 13th century. Further to the north was the Hoysala kingdom, with its capital at Belur and later Halebidu. This kingdom extended through much of the present day state of Karnataka. The Kakatiyas ruled from Warangal (Telangana) while the Yadavas ruled in Devagiri until Devagiri fell to Alauddin Khalji’s forces at the end of the 13th century. These states did not exist in peaceful cooperation, and the region was beset by many internal wars and conflicts.



Hampi

The establishment of the kingdom (subsequently empire) of Vijayanagar was the most momentous development in the history of south India in the medieval period. The kingdom was established by Harihara and Bukka, two brothers. They were the first rulers of the Sangama dynasty. They founded a new capital city on the southern banks of Tungabhadra which they named Vijayanagara (city of victory). Harihara was crowned in 1336 A.D. (C.E.). The Sangama dynasty ruled Vijayanagar for nearly one and a half centuries. This was followed by the Saluva dynasty which was in power only for a brief period. The Tuluva dynasty then succeeded as rulers. Krishnadeva Raya, the greatest ruler of Vijayanagar, belonged to this family.

Kingdom: a country ruled by a king or queen. **Empire:** a group of countries controlled by one ruler.

As the empire expanded, kingdoms to the south, such as the Hoysalas and the Tamil region, were also assimilated into Vijayanagar. The rulers of Vijayanagar were almost continuously at war with the Bahmani sultanate as well as with the Religious based kingdoms of Kondavidu and Orissa. Finally, the combined forces of the five Deccani Sultanates defeated Vijayanagar in 1565 A.D. (C.E.) at the Battle of Talikota. The Vijayanagar emperors then shifted their capital further south to Penugonda, and eventually to Chandragiri near Tirupati. The empire (or what remained of it) finally withered away in the middle of the seventeenth century.

3.1(d) The Mughals (1526–1707 A.D. (C.E.))

The Mughal empire was founded by Babur in 1526 A.D. (C.E.) after he defeated Ibrahim Lodi at Panipat. The first six Mughal emperors are referred to as the ‘**Great Mughals**’. Aurangzeb was the last of the great Mughals. Akbar consolidated the Mughal empire through conquests and through a policy of conciliation with the Religious based kingdoms of Rajasthan. The Mughal empire though began to disintegrate after Aurangzeb, continued to exist nominally till 1857 A.D. (C.E.) when the British finally ended the virtually non-existent empire.

A new power centre rose in Maharashtra in the seventeenth century, and the Marathas under the leadership of **Shivaji** seriously undermined the authority of the Mughals in western India. At its height, the empire stretched over most of the Indian sub-continent. Only the south-western

region of Kerala and southern Tamilnadu were not directly under Mughal rule.

3.1(e) The Arrival of the Europeans

During the fifteenth century the Europeans were pre-occupied with trying to find a direct sea route to India, bypassing the overland route through west Asia and the Mediterranean. The spice trade from India was controlled by Muslims up to Alexandria. By gaining direct access to India the Europeans could exercise more direct control over the spice trade and obtain the spices at more favourable prices. In 1498 A.D. (C.E.), Vasco da Gama landed on the Kerala coast having sailed around the Cape of Good Hope in South Africa. Barely five years later, the Portuguese built their first fort at Cochin in 1503 A.D. (C.E.). Goa was captured in 1510 A.D. (C.E.) and became the centre of the Portuguese state in India. Because of their naval superiority, the Portuguese were able to conquer many ports from east Africa up to Malacca, and could effectively control the maritime trade over the entire region.



Trade in Masulipattinam

Other European nations soon followed the Portuguese, most notably the Dutch, English and French. The activities of the latter were carried on through the respective East India Companies. While these were all private trading enterprises, they all had a strong political agenda. During the seventeenth century, when Mughal authority was still powerful, the European companies were able to trade

in the Mughal empire, but could not have their own territorial base within the boundaries of the empire. In South India, however, political authority was fragmented and much less cohesive, and they had their own enclaves over which they exercised complete authority. The Dutch were in Pulicat (and later Nagapatnam), the English in Madras, the French in Pondicherry and the Danes in Tarangampadi (Tranquebar).

3.2 Impact on Polity

The above stated political developments in Indian history had far-reaching consequences on administrative institutions, society and the economy across the sub-continent.



King Raja Raja Chola

The CHOLA PERIOD was an enterprising period when trade and the economy expanded, accompanied by urbanization. The administrative machinery was re-organised during Chola rule. The basic unit of local administration was the village (*ur*), followed by the sub-region (*nadu*) and district (*kottam*). Tax-free villages granted to Brahmins were known as *brahmadeya*. Marketing centres and towns were known as *nagaram*. The *ur*, *nadu*, *brahmadeya* and *nagaram* each had its own assembly. They were responsible for the maintenance and management of the water resources and land; the local temples; resolving local

issues and disputes; and for collecting the taxes due to the government.

While the Chola state did not intervene in this fundamental system of local administration, they introduced innovations in revenue administration by creating new revenue divisions (*mandalam* and *valanadu*). Several new taxes on agriculture and commerce were also introduced.

The second notable feature was the great increase in the construction of temples. This had two dimensions: new temples were constructed, and existing temples became multi-functional social and economic institutions. The construction of great temples also was a reflection of the growing prosperity in the kingdom, since the activity involved great expenditure. The temple was no longer a mere place of worship, but became an important economic entity as an employer, consumer and land-owner.

The establishment of Islamic Rule in Delhi made a big impact on Indian society. Initially, Islam did not cause any social tension. Arab merchants, for instance, when they came and settled on Kerala coast, married local women and led a peaceful life. The situation changed when Islam became a state power. For a medieval ruler one way of asserting imperial authority was to demolish the place of worship of the enemies. Otherwise Islam as a monotheistic religion had its positive impact in Indian society. It played a decisive role in the evolution of a composite culture.

Muslim kingdoms in Delhi, as well in the Deccan, also attracted migrants from Persia and Arabia who moved to India and took up service in these states and many became important and well-known statesmen. This also opened up Indian society to steady interaction with west Asia resulting in the transfer of

cultural and technical influences. Muslim merchants and craftsmen also migrated from the north of India to the south in the wake of the military expeditions. Society became more heterogeneous and hybrid in character. A new composite culture evolved. This could be seen most vividly in the Deccan sultanates of Bijapur and Golkonda whose rulers were extremely broad-minded and secular in outlook.

A notable development was the profusion of contemporary historical accounts of the Muslim Sultanates by Arab and Persian historians. Al beruni, Ibn Batuta, and Ferishta are among the best known of the Muslim historians. These historians provide valuable information about the rulers and events of the medieval period. They also provide an alternate historical point of view of Islamic rule in India as seen through the eyes of Muslim writers.

The establishment of the VIJAYANAGAR EMPIRE changed the administrative and social institutional structure of south India, especially in the Tamil country. Perhaps because the new kingdom was threatened from the beginning by the hostility of the Bahmani sultanate in the north, Vijayanagar evolved as a militaristic state. This empire needed two kinds of resources to feed its military establishment – revenue and men. This was achieved through re-organizing the administration of the conquered territories, especially in the Tamil region. Military officers, known as '*nayakas*', were appointed as chiefs of various localities in Tamilnadu and received land grants from the emperor. There were also lesser military leaders known as *palayakkarar* who essentially supplied the manpower for the army. Many forts were also built which were under Brahman commanders.

Three major nayaka kingdoms, owing allegiance to the Vijayanagar emperor, came up between 1500 A.D.

(C.E.) and 1550 A.D. (C.E.) in Madurai, Tanjavur and Gingee (Senji). These nayakas had formal roles in court ceremonials at Vijayanagar. This became the new political order in Tamilnadu during the sixteenth century. The nayaka chieftains as well as the three nayaka kings were all strong supporters of Hindu temples. The three capitals became great cultural centres under the patronage of the nayaka rulers who promoted literature and the performing arts.



Rani Mangammal

Resources realized from the land were transferred to the empire by the nayakas not as tax revenue, but as tribute. Thus, the resources of the core regions, especially in the Tamil region, were utilized for military purposes. This administrative set-up effectively destroyed the decentralized, local institutions which managed local resources, temples and affairs which had come up during Chola rule. The appointment of Telugu nayakas also resulted in the migration of

Telugu-speaking people from the north. These included soldiers, agriculturists, craftsmen and Brahmins.

The MUGHAL EMPIRE transformed the economy and society of north India. The empire was consolidated under Akbar through his policy of co-opting the Hindu Rajput rulers under the umbrella of Mughal rule. He also reversed the policy of discriminatory measures against the Hindus. He employed Hindu administrators like Todar Mal in key positions of authority. These initiatives earned the emperor the loyalty and trust of the majority community. As the empire stretched across north India, the entire region was brought under a uniform administrative structure. The political stability of the large empire led to impressive growth of the economy and trade. At the height of its power the Mughal empire was one of the largest, richest and most powerful empires in the entire world.

In part due to Aurangzeb's reversal to orthodox Islamic principles of governance which alienated the Rajput rulers and the Hindu subjects, the over-extended empire began to collapse under its own weight by the beginning of the eighteenth century. The viceroys of many Mughal provinces – Bengal, Awadh (Oudh), Hyderabad, Arcot – became independent rulers of the successor states after the death of Aurangzeb. These states became centres of distinctive local cultures, including styles of cooking like Lucknavi and Hyderabadi cuisines.

The ARRIVAL OF THE EUROPEANS in India ultimately culminated in the establishment of colonial rule in India under the British, and this is what is considered foremost when discussing the impact of the European presence. But the coming of the Europeans was important for many

other reasons. The growing presence of the European trading companies also witnessed an influx of European travellers into India. They left exhaustive accounts of their travels in India, commenting on virtually all aspects of life in India. These accounts are important contemporary sources of information on the economy, society, political developments and institutions in India.

The Europeans came to India primarily in search of spices. But soon there was an explosion in the demand for Indian textiles in the European markets, often referred to as the 'Indian craze'. This led to a significant expansion of textile production in India, which was accompanied by an expansion of the production of commercial crops like cotton and indigo and other dyes.

3.3 Society

3.3(a) Caste

Caste is the most distinctive (and most discussed) aspect of Indian society. We first need to understand two dimensions of the term 'caste'. First, the four-fold division of society as specified in the religious texts, referred to as *varna*. There was a considerable proportion of the population which was outside the *varna* system. The number of such people increased significantly by the medieval period. This was partly because more and more pastoral and forest land was being reclaimed for cultivation, and the people who lived in these lands were evicted. They had to work as landless labourers for their living, and were often tied to the land like serfs.

In reality, caste was a complex phenomenon. It combined economic and social dimensions and has to be understood under the more common term of *jati*.

The different jatis were not necessarily at different levels of ranking in a vertical hierarchy, but each still retained a separate identity. The persons who worked in any specific occupation or profession considered themselves as part of a distinct caste. These occupations could be service related or artisanal crafts like weaving, metal work, woodwork etc. In most cities persons working in the same occupation often lived in their own segregated quarters. In general, occupations were hereditary. Technology and knowledge about production processes were transferred orally from generation to generation.

We have extensive information about occupational castes for south India, especially Tamilnadu. The occupational caste groups are sometimes referred to as guilds. They functioned under a leader or small group of leaders who were the deciding authority on all matters pertaining to the caste. Theoretically, any person who worked in a particular occupation could become a member of the group (as was the case in guilds in Europe). In practice, however, there are virtually no instances of outsiders becoming a member of an occupational caste. Muslim craftsmen or weavers could thus not become members of a Hindu group.

Improving the status of their jati was a major pre-occupation for all caste groups. This is particularly evident after the fourteenth century when the traditional local assemblies which controlled the resources and social interactions began to weaken. In traditional society many castes were denied various social rights and privileges. Therefore, caste groups often petitioned the local ruler for permission to use various symbols of higher status, like the right to wear footwear, the right to carry umbrellas, the right to use certain decorations at funerals and so on. Each caste also created a mythical genealogy

to establish its origins; this was used to justify the claim for the right to a higher status in the hierarchy. These genealogies are found in many of the manuscripts collected by Colin Mackenzie.

A singular and unusual feature of the caste system existed in most of south India: groups of castes were vertically divided into right (*valankai*) and left hand (*idankai*) castes. Each group included castes at different levels in the caste hierarchy, like merchants, land-owning castes and professional castes down to agricultural labourers. This division was found throughout south India, but we have more comprehensive information on the right and left hand castes in the Tamil region because their conflicts are extensively documented in the English records.

Primarily, the conflicts between the two groups were extremely violent. Generally, these conflicts arose from the claims by each group to indicators of superior ceremonial status, which was another manifestation of the constant striving for improving social status in the caste hierarchy.

3.3(b) Religion

Diverse institutions with different ideologies came up within the bhakti movement during the medieval period. Mathas or mutts were established under different gurus or religious leaders like Vidyananda; Saivite movements came up like the Tamil *Saiva-siddhanta*, and the *Virasaivas* in Karnataka; in Maharashtra the *Varkarisampradaya* (tradition) of the devotees of Vithoba arose in the 14th century.

Buddhism had faded out in India. Jainism also lost ground in most parts of India due to emergence of bhakti movement under Sankara and Ramanuja. However, it continued to thrive in parts of Gujarat and Marwar, especially among the trading communities. Islam spread throughout

the country as Islamic sultanates were set up eventually entering south India. With regard to Christianity, there were a small number of Christian groups in Kerala claiming their origins to the time of St Thomas, the disciple of Jesus. But Christianity took roots when the Portuguese arrived in Kerala and set themselves up in Goa. In Goa itself the local population was under great pressure to convert to Christianity, especially under the oppressive conditions of the Inquisition. But Jesuit missionaries were also active in other areas, especially among the fishing communities on the Pandyan coast. The best known among the Jesuit missionaries was St Francis Xavier who was instrumental in making the fishing community to take to Christianity in the Tuticorin region. Another notable Jesuit was Roberto de Nobili, a scholar, who was based in Madurai.



Roberto de Nobili

In the north a new religion, Sikhism, was founded by Guru Nanak, who lived during 15th and 16th century. Sikhism grew in strength in spite of severe repression by Aurangzeb. Thus, by the beginning of the eighteenth century, many religions co-existed across India. Foreign religions also came to India when Jews and Zoroastrians (Parsis) migrated to India. The Parsis, who fled Persia to escape persecution, settled in Gujarat, while the Jews lived in Kerala. Parsi merchants were among the richest and most prominent in the port of Surat, and subsequently, in Bombay under the British.

3.4 Culture

Literature, Art and Architecture

The Chola period was an era of remarkable cultural activity. These were the centuries when major literary works were written. The

best known classical poet, Kamban, wrote Ramayana in Tamil which was formally presented (Arangetram) in the temple at Srirangam. Sekkilar's *Periyapuranam*, similarly was presented at the temple in Chidambaram. Among the other great works of the period is *Kalingattup-parani* and *Muvarula*. It was also a period when great religio-philosophical treatises like the *Sankara-bhasyam* and *Sri-bhashyam* were produced.



Darasuram Temple

The monumental architecture of the Cholas is visible in the great temple of Tanjavur, Gangai-konda-cholapuram and Darasuram, to name only a few. Stone images were sculpted on the temple walls and pillars. Bronze images of great beauty and artistry were made by the 'lost wax' process. The best known of them is the iconic representation of Siva as Nataraja, performing the cosmic dance.

A distinct Islamic cultural tradition developed in India with the establishment of Muslim rule. The sultans built forts, tombs, mosques and other monuments in Delhi as well as in south India which came under their rule. The Mughal period particularly was a brilliant epoch in the cultural history of India. The Mughals were well-known for their aesthetic values, and were great patrons of the arts. They left behind numerous monuments, in addition to constructing entire cities like Shahjahanabad (Delhi) and Fatehpur Sikri, gardens, mosques and forts. Decorative arts – especially jewellery set

with precious and semi-precious gems for items of personal use – flourished under the patronage of the royal household and urban elites. The art of painting also flourished in the Mughal period. Primarily known as Mughal miniatures, they were generally intended as book illustrations or were single works to be kept in albums. A large volume of literature was produced, especially in Persian, and also in Urdu, Hindi and other regional languages. In the performing arts, like Hindustani the name of Tansen is well-known indicating the patronage extended to classical music under Akbar.



Fatehpur Sikri Fort

In south India, the Vijayanagar rulers and their military chiefs actively supported temple construction. Many new temples were built by them. Besides this, new structures like pavilions and halls with many pillars were added extensively to existing temples, with elaborately carved pillars. Art historians point to the distinctive style of the temple sculptures of the Vijayanagar period. The intricately carved lofty towers or *gopurams* at the entrance to temples were all added during the Vijayanagar period. The walls of the temples were embellished with paintings.

A large volume of religious literature, especially in Sanskrit, was produced under the patronage of the

nayakas and the Vijayanagar rulers. Telugu literature flourished under royal support. A new style of Tamil literature called Prabandham emerged during this period. The great commentaries of the epic *Silappadikaram* and *Tirukkural* were also written during this period. Venkatamakhi, son of Govindha Dikshidar who codifying the ragas of Carnatic music had lived in this period.

3.5 Economy

3.5 (a) Agriculture

India was predominantly an agricultural country, and a very large proportion of the population lived in rural areas and depended on agriculture for their livelihood. Both in the north and the south, agriculture depended heavily on irrigation. Canals and wells added to the water sources in addition to rainfall and rivers. The state was actively involved in the construction of canals for increasing the availability of water. The biggest network of canals known in India until the nineteenth century was created in the fourteenth century by Firuzshah Tughluq in the Delhi area. Construction of lakes, tanks and reservoirs with sluices to let out the water as well as the use of check dams all increased the availability of water for irrigation. Cultivators were also encouraged to dig wells. Lift irrigation was used to draw the water. In the north, the Persian wheel was used for lifting water from wells. In the Tamil region, the Cholas had created a network of canals for irrigation connecting the tributaries of Kaveri. Lakes and tanks also added to the water sources.





Persian Wheel

An important feature of Indian agriculture was the large number of crops that were cultivated. The peasant in India was more knowledgeable about many crops as compared to peasants in most of the world at the time. A variety of food grains like wheat, rice, and millets were grown apart from lentils and oilseeds. Many other commercial crops were also grown such as sugarcane, cotton and indigo. Other than the general food crops, south India had a regional specialization in pepper, cinnamon, spices and coconut.

In general, two different crops were grown in the different seasons, which protected the productivity of the soil. Maize and tobacco were two new crops which were introduced after the arrival of the Europeans. Many new varieties of fruit or horticultural crops like papaya, pineapple, guava and cashew nut were also introduced which came from the west, especially America. Potatoes, chillies and tomatoes also became an integral part of Indian food.

Sericulture (silk production by breeding the mulberry silkworm) was introduced in the fourteenth and fifteenth centuries. By the seventeenth century, Bengal had become one of the largest silk-producing regions in the world. In addition, other varieties of silk (like *tassar*) were also produced.

There is more data for north India especially with respect to crop yields. The data for the thirteenth to fourteenth centuries, as well as the sixteenth century indicate that the productivity per unit of land was as high then as it was at the end of the nineteenth century. There was less population pressure on land in the earlier centuries, so it can be argued that even productivity per capita was higher than it was in more recent times. By and large, the evidence indicates that land was still plentifully available in north and south India. Rural population were known to abandon a settlement and move to a new location in protest against excessive demands by the rulers. People moved to the more arid, black soil regions of western and southern Tamilnadu in the context of decline of Vijayanagar empire and began to cultivate these lands.

The economic condition of the bulk of the peasantry, however, was poor. They generally lived only at a very basic level of subsistence. There are many instances in south India in the seventeenth century when poor peasants sold themselves and their families into slavery. The shipping lists of the Dutch East India Company regularly mention men and women slaves who were transported to the spice producing islands of Indonesia to work on the plantations.

3.5 (b) Non Agricultural Production

Up to the end of the seventeenth century, India was one of the largest manufacturing countries in the world though the economy was primarily agricultural. Non-agricultural production refers to both processed agricultural products and craft production. Primarily the products can be grouped under: processed agricultural products like sugar, oil, textiles; metal work; precious gems and jewellery; ship

building; ornamental wood and leather work; and many other minor products.

The organization of production basically depended on the nature of the market for which it was produced. A large part of the production was intended for local use in the village, or at most a rural region. These goods were basic utilitarian goods like pots and pans, implements like ploughs, basic woodwork and coarse textiles. Generally the producer marketed the product himself, and exchange was probably conducted on barter.

In economic terms, what was important was specialized production by skilled craftsmen for an external market, especially in demand among the high income rural and urban upper classes. Such craft production was generally located in cities, or in rural settlements close to the cities. Craftsmen generally worked on an individual or family basis from their homes or workshops though larger manufacturing units (*karkhanas*) employing many craftsmen were set up under the Mughal state.

3.5(c) Textiles

Nearly all the cloth that was produced was of cotton, though silk weaving had developed in Bengal where silk was produced, and in Gujarat. Each region of India produced a range of highly specialized local varieties of cotton cloth ranging from the coarse to the superfine, but all were intended for an external market. Dyed and printed/patterned cloth involved the use of vegetable dyes. India had two natural advantages in cotton weaving. The first was that cotton grew in almost all parts of India, so that the basic raw material was easily available. Second, the technology of producing a permanent colour on cotton using vegetable dyes was known from very early times in India. Cotton does

not absorb dyes without a preparatory process using mordants, which was not known in the rest of the world. Indigo was the most important dye crop that was grown in India, but other dye crops (like the chay root for red colour) were also grown in India. Dye woods and resins like lac were imported. In addition, a range of colours were produced by using flowers and fruits, and products like turmeric in various combinations.



Textile Production

Textile production involved several stages and craftsmen in the spinning of yarn, weaving and dyeing and printing. Each was a specialized occupation. Yarn was traditionally spun by women and was a home-based occupation. Indian textiles were in great demand in the Asian markets, and were the chief export from India. During the seventeenth century, the Dutch and the English realized that they could procure spices from the spice islands of Indonesia most profitably in exchange for cloth from India. There was also a growing demand for many varieties of Indian cloth like muslin, chintz and so on for personal wear and furnishings in the European market. This resulted in a sudden expansion of demand for Indian cloth, thereby impacting on agricultural sector also.

3.5(d) Commerce

The large manufacturing sector essentially produced goods for exchange, and not

for self-use. Therefore, India had an extensive network of trade for marketing these goods. The village was the basic geographical unit of production, and was essentially a subsistence economy and barter was the medium of exchange. At the next level, the producer (agricultural or non-agricultural) produced a surplus which he marketed himself, usually in regional weekly markets. At the most advanced level, the producer was de-linked from marketing, which was undertaken by merchant intermediaries. All three kinds of markets co-existed in India, in an “ascending scale in the overlapping circuits of exchange”.

Big cities were usually major commercial centres, with bazaars and shops. They were also intermediate points in inter-regional trade since they were connected by a network of roads to other centres in other parts of the country. In addition to such overland trade, smaller ships and boats were used in coastal trade along both the western and eastern coasts of the country. Itinerant merchants, usually nomadic banjaras, carried supplies for the large armies which were on the move. Finally, the major ports (Surat, Masulipatnam, Calicut etc.) were the nodal points in international, maritime trade.

Maritime trade across the Indian Ocean, extending from China in the east to Africa in the west, had flourished for many centuries. India was an integral part of this maritime. This was partly due to its geographical location in the middle of the Indian Ocean. Till the seventeenth century, ships from China rarely ventured further west beyond the ports of the Kerala coast, while ships from the west did not sail beyond Malacca (in Malaysia) to the east. Thus ports like Malacca, Calicut etc. were ‘entrepôts’ or intermediate points in this regionally segmented trade. In the seventeenth century, Surat in

Gujarat, Masulipatnam in the Golkonda kingdom, Chittagong in Bengal, Pulicat (Pazhaverkadu) and Nagapatnam on the Coromandel Coast, and Calicut in Kerala were all major ports in Asiatic trade.

India was also a major exporter of textiles, pepper, precious and semi-precious gems – especially diamonds which were then found only in India – and iron and steel which were greatly in demand in the entire Asian region. Textiles accounted for nearly 90 per cent of the total exports from India. The major imports from China and the east were silk, Chinese ceramics, gold, spices, aromatic woods and camphor. Silk, drugs, dye woods and sugar were the main imports from Persia, while gold, ivory and slaves were brought in from east Africa.

Until the fourteenth century, in south India, international trade was carried on by merchants who belonged to the corporate group of a guild. Two such guilds are well-known: *Ainnurruvar* (the Five Hundred) who had their headquarters in Aihole, and the *Manigramam*. These guilds were heterogeneous agglomerations of many merchant groups and corporate assemblies like *nagarams*. After the thirteenth century when the local assemblies of villages and towns which had hitherto managed the temples had begun to weaken, the merchant guilds took it on themselves to raise taxes from their members and make joint donations to temples. There are no references to the merchant guilds after the fifteenth century and individual rich merchants took over maritime trade.

A large network of merchants was needed to manage and channel trade across India. Merchants operated at different levels. The petty traders and shopkeepers, single commodity merchants and brokers on the one hand and the richest and most powerful merchants who were involved in exports and imports at the apex of the pyramid on

the other had to source the goods for their trade, especially textiles, from a very large hinterland. In order to meet this need they employed local merchants and brokers to procure the textiles and other products which they exported. Trade on such a large scale could function only with the availability of financial and banking services. Bankers and money changers operated in all the big cities, and bills of exchange or *hundis* (similar to cheques or bank drafts) were used to transfer money from one city to another. Gujarati merchants were found in all the ports of the Persian Gulf and Red Sea, while the Coromandel merchants operated from Malacca and other ports in Siam and Burma.

The European trading companies realized that they could not function in India without the services of these rich and influential merchants. They entered into contracts with them to supply the goods that they wanted and also to lift the imports which they brought in from Europe. The Indian merchants benefited from the business opportunities offered by the European companies. But this scenario began to change from the beginning of the eighteenth century. The Indian merchants were under contract to the Europeans to supply textiles and other goods. But by then the local resources were not enough to produce the quantities required and political disturbances also disrupted all economic activity. This resulted in most merchants being bankrupted diminishing the economic vitality of the merchant community.

3.6 Urbanization

Travellers coming to India in the medieval period noted that there were a number of urban centres of various sizes, from cities to small market towns throughout India, though the country was primarily rural. The urban population was probably quite

small as a proportion of the total, but it had an economic and cultural significance which was much greater than its actual size.

What were the factors which facilitated urbanization? It has been observed that cities and towns fulfilled diverse and overlapping roles in the economy. The large cities were centres of manufacturing and marketing, banking and financial services. They were usually located at the intersection of an extensive network of roads which connected them to other parts of the country. Smaller towns were marketing centres in local trade connecting the immediate rural hinterland. Cities also served as political and administrative centres, both in the capital region (for instance, Agra and Delhi) and in the provinces (Patna, Ahmedabad, Lucknow). Major pilgrimage centres like Varanasi also grew into cities, because the regular inflow of pilgrims provided a market that attracted manufacturing and trade.

In South India, especially the Tamil region, urbanization went hand in hand with temples. Temples were large economic enterprises requiring a variety of goods and services to function. They needed and employed a large number of people to man the religious services, the kitchens and for other work. Devotees coming to worship at the temple needed many services and goods, so that temple towns also became marketing centres. The pace of urbanization increased during the Vijayanagar period when there was a great increase in the construction of temples across Tamilnadu.

It must be remembered that the distinction between rural and urban was not as marked as it is in the present day. Most urban centres also displayed rural characteristics. For instance, it was not uncommon to find fields with crops within

a city. But it is interesting to note that most of the large cities and market centres which existed in the medieval period are still to be found in north and south India, even though their relative importance might have changed over the centuries.

Conclusion

The medieval period covering more than seven hundred years of Indian history was a time when momentous changes took place in the political landscape which also transformed the social and economic fabric of the country.

SUMMARY

- Major political changes commencing from the establishment of Muslim Rule in Delhi, are dealt with.
- The enterprising period of Cholas and the significance of Vijayanagar Empire in the south are analysed.
- The economy and the society during the Sultanate and the Mughal rule are highlighted.
- Occupational castes and conflict between Right and Left Hand Castes are explained.
- Progress in art, literature and music are discussed.
- Conditions of agriculture, trade, commerce and urbanization are examined.

GLOSSARY

watershed	–	சிறப்புமிக்க
awe-inspiring	–	மலைப்புத் தருகிற
bastion	–	அரண்
genealogy	–	பரம்பரை வரலாறு; வம்சாவளி
aesthetic value	–	அழகியல் தன்மை
assimilate	–	உள்வாங்கு
commentaries	–	விளக்கவுரை
alienate	–	அந்நியப்படுத்து
concomitant	–	தொடர்ந்து வரக்கூடிய
agglomeration	–	கூட்டமைப்பு
embellish	–	மெருகூட்டு

EXERCISE

I. Choose the correct answer

1. _____ was the second stronghold of Ala-ud-din Khalji's expanding Kingdom.
a) Dauladabad b) Delhi c) Madurai d) Bidar
2. The Deccan Sultanates were conquered by _____.
a) Ala-ud-din Khilji b) Ala-ud-din Bahman- shah
c) Aurangzeb d) Malik Kafur
3. The establishment of _____ empire changed the administrative and institutional structures of South India.
a) Bahmani b) Vijayanagar c) Mughal d) Nayak
4. The guild known as the "the five hundred" (*ainnurruvar*) had its headquarters in _____.
a) Nagapatnam b) Ajantha c) Calicut d) Aihole
5. Krishnadeva Raya was a contemporary of _____.
a) Babur b) Humayun c) Akbar d) Shershah



II. Find out the correct statement

1. i) The establishment of the Vijayanagar Kingdom witnessed the most momentous development in the history of South India.
ii) The Saluva dynasty ruled for a longer period.
iii) The rulers of Vijayanagara had smooth relations with the Bahmani Sultanate.
iv) Rajput kingdoms attracted migrants from Persia and Arabia.
2. i) The Nayak Kingdom came up in Senji.
ii) The appointment of Telugu Nayaks resulted in the migration of Telugu-speaking people from Madurai.
iii) Mughal Empire started declining from the time of Jahangir.
iv) The Europeans came to India in search of slaves.
3. i) Mythical geneologies were collected by Col. Mackenzie.
ii) Indigo was the most important beverage crop in India.
iii) Mahmud Gawan was the minister in Alauddin Khalji's kingdom.
iv) The Portuguese built their first fort in Goa.
4. Assertion (A): India was an integral part of maritime trade, extending from China in the east to Africa in the west.

Reason (R): Geographical location of India in the middle of Indian Ocean.

- a) i) A is correct; R explains about A
 - b) ii) A is wrong; R is correct
 - c) iii) A and R are wrong
 - d) iv) A is correct; R does not explain about A.
5. i) Gold images of great beauty and artistry were made by Cholas.
ii) The best example for Chola architecture is Siva as Nataraja performing the cosmic dance.
- a) (i) is correct (ii) is wrong
 - b) Both (i) and (ii) are correct
 - c) Both (i) and (ii) are wrong
 - d) (i) is wrong, (ii) is correct

III. Match the following

- 1. Portuguese – Bengal
- 2. Tansen – Kottam
- 3. Sericulture – Court of Akbar
- 4. Angkorwat – Goa
- 5. District – Cambodia

IV. Fill in the blanks

- 1. _____ were Europeans who arrived on the west coast of India.
- 2. The combined forces of the five Deccan Sultanates defeated Vijayanagar army in 1565 A.D. (C.E.) at the battle of _____.
- 3. Vijayanagara evolved as a _____.
- 4. The tempo of urbanization increased during _____ period.
- 5. _____ was the enterprising period in the history of Tamil Nadu.

V. Answer all the questions given under each heading

1. The arrival of the Europeans

- a) Who controlled the spice trade from India?
- b) What enabled the Portuguese to have control over maritime trade over the entire region.
- c) How were the trading activities of the Europeans carried on in India?
- d) Mention the enclaves of the Dutch, the English, the French and the Danes in India.

2. Society, Religion and Culture

- a) Which is the most distinctive aspect of Indian Society?

- b) What is a guild?
- c) Mention some Saivite movements.
- d) Name the court musician of Akbar.

VI. Answer the following briefly

1. Write about the military expeditions of Malik Kafur.
2. Who founded the Vijayanagar Kingdom? Mention the dynasties that ruled over the kingdom.
3. Mention the two natural advantages that India had in cotton weaving.
4. What were the factors which facilitated urbanization?
5. What is sericulture?

VII. Answer the following in detail

1. Discuss the political changes during 1526-1707 A.D. (C.E.).
2. Explain the commercial developments in Medieval India.
3. “Chola Period was a enterprising period in the history of Tamil Nadu” – Elucidate.

VIII. Activities

1. On the outline map of India mark the important places of medieval India.
2. Collect pictures of architectural importance of the Cholas.

IX. Assignment

1. Collect the pictures of Angkor Wat in Cambodia.
2. Arrange a debate in the class on the advantages and disadvantages of urbanization.



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Events happening in Europe during this Period

Holy Roman Empire & Emperor Charlemagne

In the beginning of the 9th century A.D. (C.E.), a new institution called Holy Roman Empire came into existence in continental Europe. This had nothing to do with the old Roman Empire which had ceased to exist after 476 A.D. (C.E.). The newly established Holy Roman Empire represented Christianity and Christendom and, hence, it was designated holy. The emperor was supposed to be a Representative of God on earth like the Pope. The emperor dealt with political matters, while the Pope dealt with the spiritual. The Emperor was superior to everybody else in the world, except the Pope. Charlemagne, the king of Franks, was the first Holy Roman Emperor to assume the title (800 A.D. (C.E.)). Charlemagne was a contemporary of Pallava king Nandivarman II and Pratihara ruler Nagabhatta I.



Charlemagne and Pope Adrian I

King John and the Great Magna Carta

The nobles in England forced King John II to sign a Charter of Liberty in 1215 A.D. (C.E.). It is Magna Carta or the Great Charter. This Charter contained a promise that the king would respect certain liberties of the nobles and the people of England. The theory of the supremacy of the ruler which prevailed in the Holy Roman Empire was not accepted in England. King John of England was a contemporary of Sultan Iltutmish in India. Thus in England, we find that the king's power was checked early.



King John signing Magna Carta

UNIT

4

The Beginning of the Modern Age


 Learning Objectives

The objectives of this lesson are to acquaint ourselves with

- Cultural, religious and economic changes that shaped the modern world
- Humanism as an idea transforming the outlook of the people of the Middle Ages
- Protestant Reformation that emphasised that faith over rituals
- Discovery of America and new sea routes to the East leading to commercial revolution and establishment of colonies



Introduction

In the fourteenth and fifteenth centuries, Western Europe underwent dramatic changes in the political, social, cultural, religious and economic spheres. The Italian humanist Petrarch's *Canzoniere*, German theologian Martin Luther's Ninety-five theses and Portugal Prince Henry's Navigation School heralded the dawn of the modern era. The Holy Roman Empire and the Roman Church became weak and

discredited. In their place nation states, new Churches that emphasized individual faith, and a commercial revolution based on mercantilism emerged. The modern era was characterized by freedom of thought, individualism, rationalism, and economic and scientific progress. In this lesson let us look at the changes ushered in by the **Renaissance, Reformation and Geographical Discoveries**.

4.1 Causative Factors

4.1(a) Growth of Trade and Rise of Towns

With the decline of Feudalism, Europe was gradually moving towards urbanisation. This process started first in Italy because of its prosperous Mediterranean trade. The Arabs brought spices from the east and then transported them by land to the ports of the Mediterranean region. Italian city-states such as Venice and Genoa profited immensely from this trade. Following the expansion of trade, a strong network of banking and financial institutions too developed in Italy. In this context, new ideas leading to the Renaissance, Reformation and Exploration through sea voyages were born.

4.1(b) Invention of the Printing Press

The invention of the printing press accelerated the process of modernisation. Earlier, manuscripts were written by hand on animal skin called *vellum*. Only the privileged few could access them. Johannes Gutenberg (1394-1468 A.D. (C.E.)) invented the printing press in Germany in the middle of the fifteenth century. The printing



Gutenberg's Printing Press

press enabled the production of multiple copies of a manuscript and their spread all over Western Europe. In less than fifty years after the invention of the Gutenberg printing press, about six million books had been printed. The invention of printing press not only spread knowledge widely, but also promoted critical thinking.

4.1(c) Fall of Constantinople

In 1453 A.D. (C.E.), Constantinople, the capital of the Byzantine Empire, was captured by the Ottoman Turks. This acted as a catalyst for the birth of Renaissance. It also led to the discovery of new land routes. Following the Turkish occupation, a number of scholars, artists and artisans left Constantinople, which was for many centuries the cultural capital of the Western world, to the Italian city states. Their presence and encouragement promoted the study of classical literature and art of Greeks and Romans. Similarly, though the exploration of the oceans had begun earlier, the European states were constrained to find an alternative route immediately because the Ottoman Turks were controlling the route.

4.2 Renaissance

The Italian city-states were centres of cultural activities since the fourteenth century. With the coming of the scholars and artists from Constantinople there was a surge of enthusiasm and interest in studying classical literature and art of Greeks and Romans in the Italian city states. This creative upsurge was reflected in their writings, art, architecture and music. This cultural florescence is known as the *renaissance*. The origin of the word renaissance is from the Italian word *renascita* meaning rebirth. It is called renaissance because there was a rebirth or revival of classical Greek and Latin literature. Many scholars in Italy went in search of manuscripts of classical literature. Greek scholar Manuel

Chrysoloras who taught Greek classics in Italy, Guarino and Giovanni Aurispa, to name just a few, visited Constantinople several times to collect Greek manuscripts. Later they printed what they collected. This provided stimulus to the flowering of renaissance.

4.2(a) Why Italy became the birth place of Renaissance?

Italian city-states such as Florence, Milan, Venice, and Rome profited immensely from the Mediterranean trade. This led to the emergence of a rich and vibrant urban culture. The rich families of these city states such as Medicis of Florence patronized literature, art and music. The highpoint of this period was between 1475 A.D. (C.E.) and 1525 A.D. (C.E.). Italian universities taught humanities viz., language, grammar, rhetoric, history and ethics, which prepared the students for public life, commerce and administration. The study of humanities was so popular in the Italian Universities that students from all over Europe flocked there. Classical Greek and Latin literature introduced the idea of *Humanism* which got reflected in the paintings, sculptures, architecture, music and writings of that period.

4.2(b) Humanism in Literature

The idea of humanism was first expressed in literature. The humanists were critical of medieval ideas and institutions and criticized them satirically in their writings. They argued that man was endowed with reason and the ability to attain true knowledge and greatness. **Petrarch** (1304-1374 A.D. (C.E.)) was the first to adopt ideas of classical humanism in his works and is therefore called the **Father of Humanism**. Even before him, **Dante**, influenced by the classics, wrote *Divine Comedy*. **Machiavelli** wrote a political treatise called *The Prince*.

In this book, he wrote about the virtues that a ruler should possess. He declared that a ruler should be Lion and Fox in one. For him, the end was more important than means. Erasmus (1466-1536 A.D. (C.E.)), known as the *Prince among Humanists*, wrote *In Praise of Folly*, a satirical work on the activities and rituals of the Church. Sir Thomas More of England wrote *Utopia*, a satire on the political evils of his time. Cervantes of Spain wrote *Don Quixote*, another satire on medieval chivalry and valour.

Humanism

The idea of humanism was a central feature of renaissance. It laid emphasis on human dignity and nature. In the medieval period, man was considered a mere agent of the God on earth to do his will. Renaissance humanism promoted the view that humans are endowed with attributes that are to be used to achieve greatness. It turned the gaze of the people from the other world to this world, from spiritual world to material world. The focus shifted from life after death to life in this world.

4.2(c) Impact on Art

Renaissance paintings and sculptures were realistic and naturalistic. They improved over medieval paintings and sculptures which were stylized, unrealistic and two dimensional. They portrayed natural landscapes, human anatomy, emotions and ideas.

In the field of art, great artists like **Leonardo da Vinci**, **Michelangelo** and **Raphael** dominated the scene and produced some of the finest artistic works. Leonardo da Vinci (1452-1519 A.D. (C.E.)) was a versatile genius. He was a painter, sculptor, architect, military engineer, anatomist, and poet. His paintings of *Mona Lisa (La Gioconda)*, *The Last Supper*



Mona Lisa



Madonna



Sistine Chapel

and *The Virgin on the Rocks* are illustrious examples of his talent.

Michelangelo (1475-1564 A.D. (C.E.)) was a painter, sculptor, architect and poet. His marble sculpture of David depicts the youthful strength and energy of the giant slayer. He is also famous for his paintings in the ceilings of the Sistine Chapel in Rome. Raphael (1483-1520 A.D. (C.E.)) painted beautiful *Madonnas* (Virgin and the Child). His painting

of *the School of Athens* reveals the ideological debate of his times, namely, the conflict between spiritualism and humanism.



4.2(d) Science during Renaissance

The advances in science were inspired by **Ptolemy, Archimedes, Euclid** and others of the classical period. In the medieval period the Aristotelian view that earth was the centre of the universe strengthened the Church's view of creation and its own centrality to mankind. However, the influence of Plato and other classics challenged it, laying the foundations of modern science. William Harvey discovered the circulation of blood. Copernicus proved that earth revolved around the sun through a mathematical model. Galileo provided further astronomical proof with the aid of the telescope he invented. However, he was forced by the Inquisition to withdraw his findings on the threat of death penalty. The Church thus continued to prevent the growth of science as it undermined its importance. Nevertheless, scientific discoveries and inventions continued apace leading to the Scientific Revolution.

4.2(e) Effects of Renaissance

The impact of renaissance was profound and far-reaching. Its most important contribution was the idea of humanism. It marked a definite shift towards individualism, secularism and nationalism.

The introduction and practice of writing in the vernacular, starting from Dante, enriched the growth of vernacular languages which in turn provided the intellectual basis for the rise of nation-states.

Renaissance made a beginning in criticizing the corrupt and worldly practices of the Church. Erasmus and Thomas More indirectly encouraged the reformation movement.

The curiosity kindled by the renaissance played a decisive role in the

discovery of new land routes and remapping of the world. The spirit of adventurism and quest for knowledge impelled the mariners to sail into the high seas.

Similarly, inquisitiveness and empiricism of renaissance combined with knowledge of the classical science led to new inventions in science – Copernican revolution in astronomy and William Harvey's contribution to human anatomy.

4.3 Reformation

The Roman Catholic Church was a powerful institution during the Middle Ages. The Church enjoyed both spiritual and temporal powers (apart from religious control it also exercised political control in certain areas such as the Papal States). The Pope was its head. His office was known as Papacy. The Pope wielded spiritual authority over the Christians of Europe cutting across the territorial boundaries. He lived a luxurious life like a prince. Many of his officials were corrupt and the offices of the Church were sold for a price. The Church made the people believe that they would suffer in purgatory because of their sins. The people were further told that if they repented their sins and did penance, they would be absolved from sins and go to heaven. Otherwise they would suffer in hell. The Church prescribed a number of penances for various sins. People were made to believe that participation in the Mass (a ceremony in Christianity) would reduce the sins. The Church even began to grant pardon known as the indulgences, for a fee.

The critical thinking and inquisitive spirit of Renaissance humanism helped people question such practices of the Church. Humanists such as Erasmus and Sir Thomas More, apart from condemning the corrupt practices of the Church,

were also critical of its doctrine. They issued pamphlets and published books highlighting the abuses of the Catholic Church.

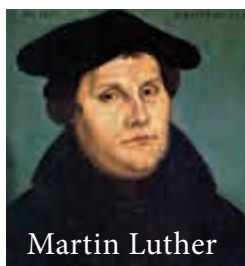
Attempts to reform the Church before the sixteenth century met with failure. Those who protested were punished with death by the Church. However, in the age of reason, the moves of the reformers were supported by some of the rulers of the nation-states. This they thought would provide them an opportunity to free themselves from the interference of the Church in the affairs of the state.

Inquisition

Inquisition was an institution of the Catholic Church to deal with heresies beliefs in opposition to the Catholic faith. Those found guilty and who recanted were awarded milder punishments and imprisonment, and those who refused to recant were burnt at the stake. The most infamous inquisition was the Spanish Inquisition.

4.3(a) Martin Luther (1483–1556 A.D. (C.E.))

Martin Luther, a monk of the Augustinian Order and a Professor of Theology in the University of Wittenberg, was a devout Christian and a scrupulous follower of the Catholic faith. However, on his visit to Rome he was shocked by the luxurious life of the officials of the Church. At about this time, a church official Johann Tetzel came to Wittenberg to sell indulgences and Church offices at an auction. Martin Luther wrote a pamphlet against the sale of indulgences, sale of offices and other corrupt practices. He listed out ninety five points and pasted them on the Church door



Martin Luther

of Wittenberg. Later the points he raised became the famous Ninety Five Theses. Soon they were printed and circulated widely. When attempts of the Church to make him withdraw his criticisms failed, Pope Leo X issued a Papal Bull excommunicating him. Martin Luther signalled his revolt by publicly burning the Papal Bull. He was then summoned to the Diet that met at Worms in 1521 A.D. (C.E.). Luther attended the Diet to defend himself, despite his friends' cautions. He was fortunately saved by his patron Frederick, the Wise, the Elector of Saxony. Frederick hid him in his Wartburg Castle, where Martin Luther translated the Bible into German.

Luther further elaborated his differences with the Church. He rejected the belief that ceremonies and penances would lead to salvation. He argued that it was by faith alone that one could attain salvation. He put forward the doctrine of *justification by faith*. The grace of God would be bestowed by the divine will alone and not by the deeds of the people. Further, the Bible could be read and interpreted by all and not by the Church alone. Thus, he rejected the role of the Church as an intermediary between the individual and God. His teachings became popular throughout Germany. Not only many Princes but the peasants also supported Luther's cause. Thus, Luther's reformation marked the first successful break from the Church and establishment of the Protestant Church. When some of the German Princes protested against the imposition of faith on them in the Diet of Speyer or Spires, they came to be known as the Protestants and the reformation that followed also came to be known as the **Protestant Reformation**.

4.3(b) Other Protestant Reforms

The Lutheran reformation opened the gates for other Protestant reformations. Though inspired by the very same reasons as that of the Lutheran reformation, they showed differences in their doctrinal approach.

Huldrych Zwingli (1484-1531 A.D. (C.E.)) of Switzerland and John Calvin (1509-1564) of Geneva followed Martin Luther in protesting against the Church. Like Luther they were also unhappy with the functioning of the Church and questioned the sale of indulgences and ecclesiastical offices. Zwingli worked from Zurich and was against all forms of rituals. Like Zwingli, John Calvin too opposed all forms of display of wealth. Calvin codified his views in his book *Institutes of Christian Religion*. He controlled the government of Geneva between 1541 A.D. (C.E.) and 1564 A.D. (C.E.). All forms of celebrations and gaiety were banned in Geneva. He believed that Church should be independent of political control on religious matters. Calvinism became more popular and spread to Switzerland, parts of France, the Netherlands and England.

In England, the reformation was brought about due to the personal reasons of the King Henry VIII. Henry VIII longed for a son who would succeed him to the throne. For this purpose Henry wanted to marry again and therefore appealed to the Pope to annul his marriage with Catherine. However, the Holy Roman Emperor was Catherine's nephew and he pressurized the Pope not to agree to his request. As the Pope kept evading his decision, King Henry VIII grew impatient and broke his ties with Rome. By a series of Acts he established a separate Anglican Church. He confiscated the properties of the Catholic Church and monasteries in England and declared himself the Supreme Head of the Anglican Church.

4.4 Counter Reformation

The Protestant reformation posed a threat to the Catholic Church. In order to meet the challenge Pope Paul III and his successors introduced a number of rigorous reforms in the Church. They dealt with corruption severely and stopped the sale of offices. The Council of Trent reemphasized the importance of ceremonies and the significance of the *mass*. It also pronounced that only the Church could interpret the scriptures. Further, it revitalized the Inquisition to deal with opposition to the Church. It also gave official sanction to the Society of Jesus. This reformation of the Catholic Church from within is known as **Counter Reformation**.

St. Ignatius Loyola and Society of Jesus

St. Ignatius Loyola founded the Society of Jesus to propagate Christianity. Its main work was through education and service to the destitute. It started a number of educational institutions, orphanages and homes for the destitute. Soon their missionaries were present in all parts of the world to spread the Catholic religion.



St. Ignatius Loyola

4.5 Geographical Discoveries

4.5(a) Causes

Henry the Navigator of Portugal laid the foundation for long distance sea voyages. He established a navigation school to train sailors. In his school, he taught them how to use navigational instruments such as the mariner's compass and the astrolabe.

The impulse for seafaring and adventurous spirit to explore uncharted sea waters was kindled by the curiosity generated by the Renaissance and the travel accounts of Marco Polo and Ibn Battuta. This was further fuelled by the crusading spirit of the Missionaries who dared to undertake dangerous voyages to spread the gospel to the non-believers in distant lands.

But the primary factor was economic. When the Ottoman Turks blocked the land route between the East and the West, spices and other goods became costlier. The European traders were deprived of the huge profits they were earning out of their trade in spices. This intensified the urge to discover a new sea route to Asia. The monarchs supported sea voyages in the hope that resources from trade would free them from their dependence on nobles.

A breakthrough was made in the fourteenth century when a copy of Ptolemy's *Geography* was brought from the Byzantine Empire to the West. By the middle of the fourteenth century, thanks to the printing press, multiple copies were made and circulated widely. It greatly increased the knowledge of the sea routes.



Henry the Navigator

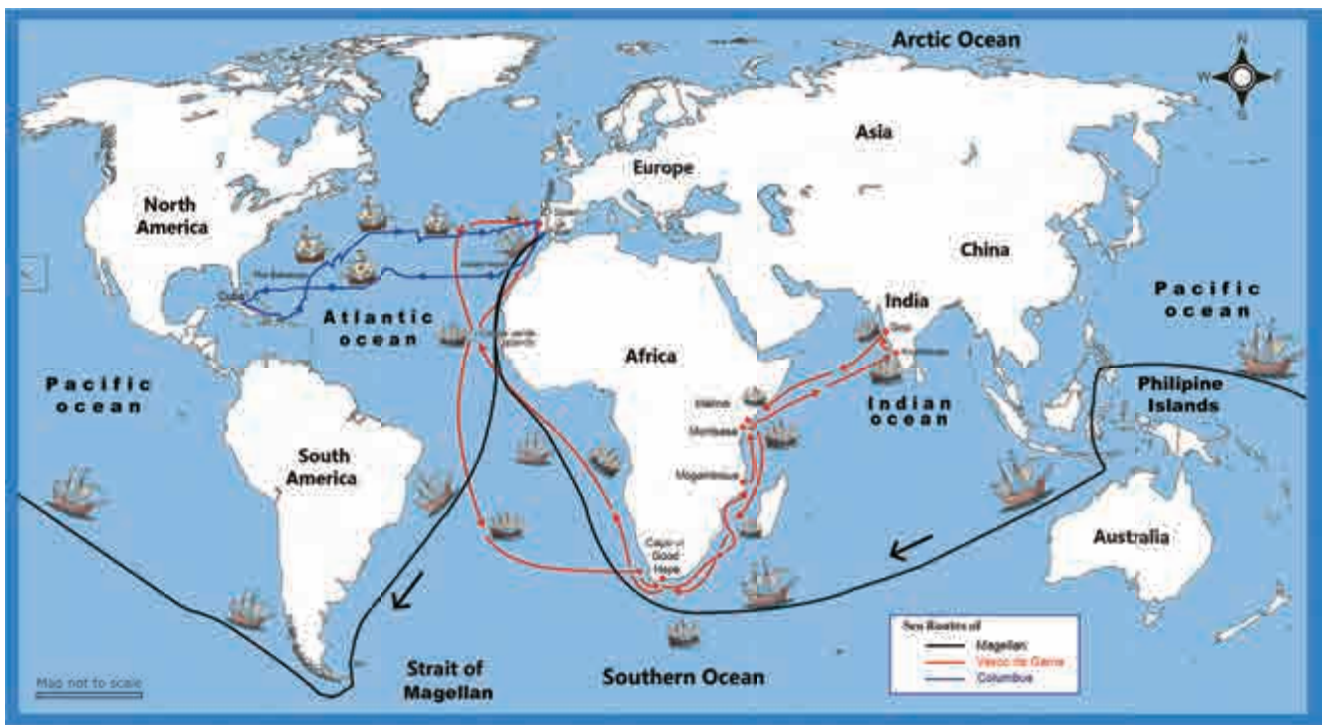
4.5(b) Portuguese Explorations

The sailors of Prince Henry had travelled into Atlantic upto the islands of Azores and Madeira. They explored the west coast of Africa. **Lopo Gonzalves** was the first sailor to cross the equator. Till then sailors did not dare to venture beyond, as they harboured fears about boiling waters and sea monsters. **Bartholomew Diaz** ventured further down the African coast reaching cape point or the southern tip of Africa in 1487 A.D. (C.E.). He named it the *Cape of Storms* as he encountered fierce storms there. However, King John II of Portugal renamed it as *Cape of Good Hope* as it provided hope to reach India by sea.

The Portuguese established trading posts along the west coast of Africa dealing in lumber, ivory and slaves. The establishment of trading posts enabled them to buy slaves and transport them directly to Portugal. The slaves were employed in the sugarcane plantations, and sugar was exported to Europe. Slaves were purchased from the African slave market and transported to the colonies under inhuman conditions in slave ships. They were chained and cramped into narrow spaces with insufficient air to breathe. Many died during the journey. For those who survived, the suffering continued in the plantations. Slave trade increased with the discovery and colonization of America.

4.5(c) Spain and Discovery of the New World

In 1492 A.D. (C.E.), **Columbus**, with the support of King Ferdinand and Queen Isabella of Spain, set sail in three ships. He crossed the Atlantic Ocean and reached the Bahamas Island, Cuba and Haiti. Columbus thought he had reached the frontier areas of Asia. Hence, he called the natives he encountered as Indians. **Amerigo Vespucci**, another sailor, made three or four voyages



Sea Routes

and landed on the American mainland. He realized that it was not Asia and that they had stumbled upon a new continent. Hence, he called it the New World. Later, a German cartographer, while preparing a map of the world, named the new world after Amerigo Vespucci and called it America.

4.5(d) Portuguese–Spanish Rivalry

The Portuguese claimed the territories discovered by Columbus. The dispute was referred to the Pope Alexander VI who drew an imaginary line north to south west of Azores and declared that the territories to the west of that line belonged to Spain and that of the east to the Portuguese.

In 1497 A.D. (C.E.) Vasco da Gama sailed from Portugal as the head of four ships to find a sea route to India by going around Africa. After reaching the Cape of Good Hope, he set sail to India with the help of an Arab navigator. On 20th May 1498 A.D. (C.E.) he reached Calicut on the Malabar Coast. At Calicut Vasco da Gama was astounded

to find pepper and other spices, a precious commodity in Portugal, available at low prices. He bought as much spices as possible. Back home he earned huge profits. Later the Portuguese navy defeated the Zamorin of Calicut and captured Goa and made it its headquarters for all its possessions in the East. Thus the foundation of the Portuguese Empire in the East was laid.



Vasco da Gama

In 1519 A.D. (C.E.), Ferdinand Magellan sailed westward and crossed the Straits, which later came to be known as Magellan Straits. As the sea was calm he called it the Pacific Ocean. On reaching an island he named it as Philippines after the

Spanish Prince Philip. He was killed in a war with the locals. However, the ship in which he had travelled returned to Spain. Thus the first circumnavigation of the world had taken place.

4.6 Impact of Geographical Discoveries

The geographical discoveries transformed the European understanding of the world. It led to the redrawing of the world map. As a result of the discovery of new lands and new sea routes, the economic centre of Europe shifted from the Italian city states to Spain and Portugal. Both Spain and Portugal established colonies that led to their economic prosperity.

Spanish discovery of the New World led to the conquest of Mexico and South America. The voyage of Columbus was followed by further explorations by Spanish Conquistadors (Conquerors) who defeated the natives and colonized it. They brutally killed the natives in their conquest and the remaining were employed under harsh conditions in gold and silver mines, and in plantations. The Spanish genocide of the natives included massacre, slavery and destruction of culture. Many natives also died because of epidemic diseases brought by the colonizers.

One of the most important outcomes of the conquest of Americas by the European colonial powers was the movement of plants, animals, technology, culture and strange diseases between the Americas and Europe or between the **New World** and the **Old World**. This is known as **Columbian Exchange**.

Plants such as maize, potatoes, sweet potatoes, tomatoes, pineapple, beans and cocoa, and animals such as turkey and guinea pigs, were transported from America and

introduced in Europe. And from Europe went sugarcane, wheat, rice, horses, cattle, sheep and goats to America. Europe also exported deadly diseases such as small pox, measles, chicken pox, malaria, typhus, etc. Apart from guns and horses, the most dangerous weapons the natives had to encounter were these deadly diseases against which they were defenceless. It led to the near annihilation of the natives in most parts of the Americas.

The introduction of sugarcane led to the establishment of sugarcane plantations in the Caribbean islands and South America. These plantations initially employed natives. The mass extinction of the native population led to the import of slaves from Africa. Gambia, Senegal, Goree, El Mina and Congo became important centres of slave trade in Africa. The Trans-Atlantic Trade was a triangular trade. The European countries purchased slaves from Africa who were transported to America. In return they got sugar and other raw materials from America. The European countries profited immensely from this trade.



Ship carrying slaves

Geographical discoveries led to Commercial Revolution. The chief features of commercial revolution were the emergence of banking, joint-stock companies and growth of trade.

The economic system followed during this period has been described as mercantilism. It is a system regulated by the

State. It is a system in which commercial profit was aimed at by monopoly trade.

As a result of geographical discoveries, the seventeenth century witnessed the emergence of various East India Companies such as the English East India Company, the Dutch East India Company, and the French East India Company.

The Portuguese, after discovering a new sea route to India, enforced its monopoly on the spice trade of East Indies, eliminating competition of the Arabs, Egyptians and Venetians by

use of military force. The Spaniards established monopoly over the mining and transportation of gold and silver in its colonies in the New World.

The English East India Company had monopoly trade in India and amassed huge wealth. Thus, the chief feature of mercantilism was exploitation of the resources of the colonies for the benefit of the colonisers. It represented an important stage in the development of modern capitalism.

SUMMARY

- The Renaissance, Reformation and Geographical Discoveries are heralds of the modern age.
- The new ideas of humanism, individualism, rationalism and nationalism provided the basis for the beginning of an era of enlightenment.
- Scientific development led to invention of new instruments and discovery of new sea routes to the east.
- There were revolutionary changes in political, economic and cultural spheres.

GLOSSARY

genocide	–	இனப் படுகொலை
feudalism	–	நிலப்பிரபுத்துவம்
purgatory	–	பாவம் போக்கப்படும் இடம்
indulgence	–	பாவமன்னிப்பு
inquisitive	–	அறியும் ஆர்வமுள்ள
epidemic	–	தொற்று நோய்
annihilation	–	அழித்தொழித்தல்
vernacular languages	–	தேச மொழிகள்
excommunication	–	மதநீக்கம்

EXERCISE

I. Choose the correct answer

1. Who among the following is known as the Father of Humanism?
 (a) Leonardo da Vinci (b) Francisco Petrarch
 (c) Erasmus (d) Thomas More
2. The *School of Athens* was painted by
 (a) Raphael Sanzio (b) Michelangelo
 (c) Albrecht Durer (d) Leonardo da Vinci
3. William Harvey discovered _____.
 (a) Heliocentric theory (b) Geocentric theory
 (c) Gravitational force (d) Circulation of blood
4. Who wrote the *95 Theses*?
 (a) Martin Luther (b) Zwingli (c) John Calvin (d) Thomas More
5. Who wrote the book *Institutes of Christian Religion*?
 (a) Martin Luther (b) Zwingli (c) John Calvin (d) Cervantes
6. Which sailor was the first to cross the Equator?
 (a) Henry, the Navigator (b) Lopo Gonzalves
 (c) Bartholomew Diaz (d) Christopher Columbus
7. _____ named the sea as Pacific Ocean as it was very calm.
 a) Columbus b) Amerigo Vespucci
 c) Ferdinand Magellan d) Vasco-da-gama
8. The continent of America was named after _____.
 (a) Amerigo Vespucci (b) Christopher Columbus
 (c) Vasco da Gama (d) Hernando Cortez
9. _____ was the headquarters of the Portuguese possession in the East.
 (a) Manila (b) Bombay (c) Pondicherry (d) Goa
10. Which among the following plants were introduced from America to Europe?
 (a) Sugarcane (b) Sweet Potato (c) Rice (d) Wheat



II. Fill in the blanks

1. In 1453 Constantinople was captured by _____.
2. _____ was known as Prince among Humanists.
3. _____ is famous for his paintings in the ceiling of the Sistine Chapel.
4. The reformation of the Catholic Church is known as _____.
5. The chief features of Commercial Revolution were _____, _____ and _____.

III. Find out the correct statement

1. a) Martin Luther broke away from the Catholic Church because he was discriminated.
b) John Calvin's government in Geneva was liberal and fun-filled.
c) King Henry VIII had deep theological differences with the Catholic Church.
d) Council of Trent reemphasized the importance of ceremonies and significance of the *mass*.
2. a) Discovery of new lands and sea routes shifted the economic centre from Italian city states to Spain and Portugal.
b) Horses were native to America.
c) During the beginning of the Modern Age, State did not interfere in economic activities.
d) The Portuguese collaborated with the Arabs in its trading activities in India.

IV. Match the following

- | | |
|-----------------------|--|
| 1. Feudalism | – Monopoly Trade |
| 2. Humanism | – Trial of Heretics |
| 3. Inquisition | – Movement of goods between America and Europe |
| 4. Mercantilism | – Hierarchical socio-economic structure |
| 5. Columbian Exchange | – Human dignity |

V. Answer the following questions briefly

1. Explain how the invention of printing press influenced Renaissance, Reformation and Geographical discoveries.
2. Write a short note on the impact of Renaissance.
3. Outline the differences of Martin Luther with the Catholic Church.
4. Write a brief note on Counter Reformation.
5. What is Columbian Exchange?

VI. Answer all the questions given under each caption

1. Renaissance

- (a) Give reasons as to why renaissance originated in the Italian city-states.
- (b) Name some of the important humanists and their works.
- (c) List the differences between medieval art and Renaissance art.
- (d) Describe humanism.

2. Reformation

- (a) Why did Martin Luther protest against the Church?
- (b) What is the doctrine of *justification by faith*?
- (c) Why did Henry VIII establish the Anglican Church?
- (d) Mention the contribution of Ignatius Loyola.

3. Geographical Discoveries

- (a) Who is Henry, the Navigator?
- (b) List the causes for the geographical discoveries.
- (c) What led to the extinction of the natives of America?
- (d) What is triangular trade?

VII Answer the following in detail

- 1. Discuss how Renaissance, Reformation and Geographical discoveries heralded the modern age?
- 2. Examine the outcome of the geographical discoveries.

Activities for students

- 1. In an outline map of World, mark, the routes of
 - a) Bartholomew Diaz b) Vasco-da-Gama c) Columbus d) Magellan
- 2. Collect pictures of European explorers.
- 3. Create a model of Mariner's Compass.
- 4. Construct a model ship of medieval Europe.

Assignments

- 1. Prepare an album with masterpieces of Italian art.
- 2. Write a brief biography of Martin Luther.
- 3. Visit the nearby printing press and compare it with the earliest printing device.



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India at the dawn of Modern Age in Europe

The Mughal rule had started since 1526 A.D. (C.E.). Vijayanagar state, founded in 1336, was a great power under Krishnadeva Raya (1509-29 A.D. (C.E.)). Portuguese established their empire in the East (India, Malacca, Ceylon) and controlled the sea with Goa as headquarters. In Tamilnadu Madurai Nayak rule began dividing the Pandya kingdom into seventy two *palayams*. The arrival of Jesuit Missions and the work of St. Francis Xavier, as a member of Society of Jesus, led to conversion of fishing community to Christianity (Catholicism) in Thoothukudi region.



Thirumalai Nayakkar Mahal

GLOSSARY

aesthetic value	- அழகியல் தன்மை
agglomeration	- கூட்டமைப்பு
alienate	- அந்நியப்படுத்து
annihilation	- அழித்தொழித்தல்
antagonize	- பகைத்துக்கொள்
aqueduct	- வாய்க்கால்
assimilate	- உள்வாங்கு
awe-inspiring	- மலைப்புத் தருகிற
bastion	- அரண்
bureaucracy	- அரசு அதிகாரவர்க்கம்
chronically	- தொடர்ந்து இருக்கிற
commentaries	- விளக்கவுரை
concomitant	- தொடர்ந்து வரக்கூடிய
de-facto	- உண்மையான
disgusted	- வெறுப்படைதல்
dynamism	- செயலாற்றல்
ecclesiastical	- திருச்சபை சார்ந்த
embassy	- நாட்டுத் தூதுவரின் அலுவலகம்
embellish	- மெருகூட்டு
empirical knowledge	- சான்றுகள் அடிப்படையில் பெற்ற தரவுகள்
enslaved	- அடிமைப் படுத்தப்படல்
epidemic	- தொற்று நோய்
excommunication	- மதநீக்கம்
feudalism	- நிலப்பிரபுத்துவம்
genealogy	- பரம்பரை வரலாறு; வம்சாவளி
genocide	- இனப் படுகொலை
heathen	- கிறித்தவரல்லாதவர்
ill-afford	- முடியாத
illustrious	- ஒப்பற்ற
impoverishment	- ஏழ்மையாக்கு
incursions	- திடீர் தாக்குதல் (அ) திடீர் படையெடுப்பு
indulgence	- பாவமன்னிப்பு
infidel	- மத நம்பிக்கையற்ற
inquisitive	- அறியும் ஆர்வமுள்ள
interdict	- சமயச் சடங்குகளைத் தடை செய்
intrusion	- தலையீடு
martyrdom	- கொள்கைக்காக உயிர்த் தியாகம் செய்தல்
mercenary	- கூலிப்படை
observances	- கடைபிடிக்கப்படுபவை
oligarchy	- செல்வர்களின் குழுஆட்சி
onslaught	- கடுந் தாக்குதல்
pillage	- கொள்ளையடி
purgatory	- பாவம் போக்கப்படும் இடம்
realm	- அதிகார எல்லை
repulse	- விரட்டியடி
retainers	- அடியாட்கள்
sacraments	- கிறித்தவ மதச் சடங்குகள்
saddle	- சேணம்
stirrup	- குதிரையோட்டி காலை வைத்தற்குரிய வளையம்
turmoil	- குழப்பம்
vernacular languages	- தேச மொழிகள்
watershed	- சிறப்புமிக்க

History – Class IX

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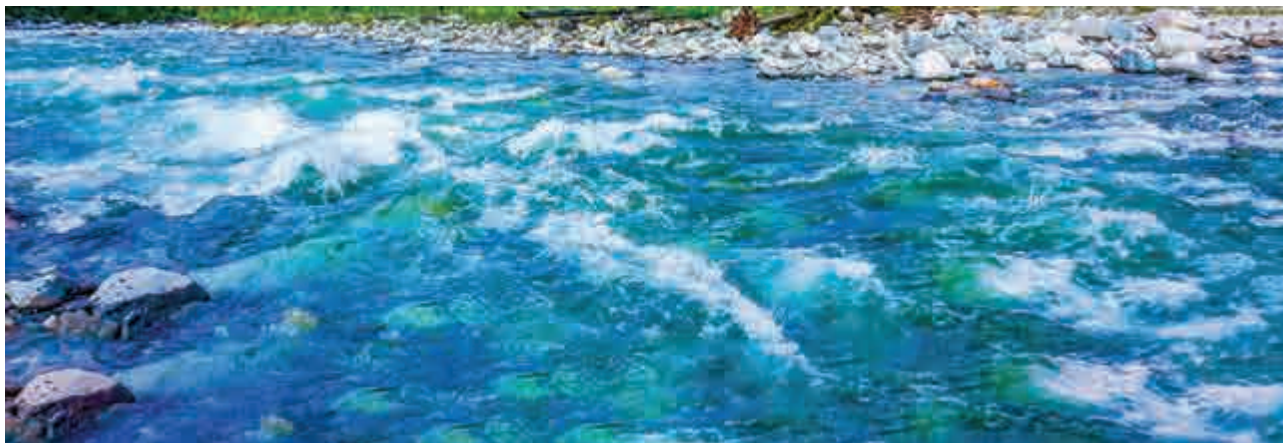
GEOGRAPHY

TERM II

UNIT

1

HYDROSPHERE


 Learning Objectives

- To understand the importance of water
- To differentiate fresh and salt water
- To compare the major seas and oceans
- To know about the relief features of the ocean floor
- To recognize the movements of ocean water
- To understand marine resources and the need for conservation

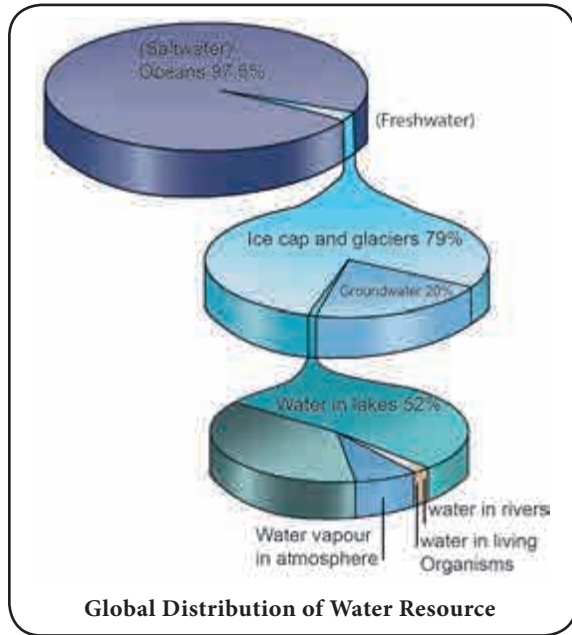


The hydrosphere is the watery part of the earth. In this unit, we discuss about the origin of the major oceans and seas of the world. The relief features of the ocean floor and formation of waves, tides and ocean currents are also illustrated. This lesson is concluded with understanding the importance of marine resources and the need for conservation.

We know that, our planet Earth consists of **four spheres**. They are the **Lithosphere**, **Atmosphere**, **Hydrosphere** and **Biosphere**. In the earlier chapters, we have studied about the Lithosphere and Atmosphere. We shall now learn the other two spheres namely the Hydrosphere and the Biosphere.

1 Hydrosphere

One of the most indispensable natural resources on earth is water. The Earth is also called the **Blue planet**, as it holds water in abundance and thus stands unique among all other planets. Hydrosphere consists of water in various forms found on the earth. Over 97% of the water on the Earth's surface is confined to oceans. Less than 3% of water is held on land as glaciers, ice caps, groundwater, rivers, lakes, and also as the water vapour in air.

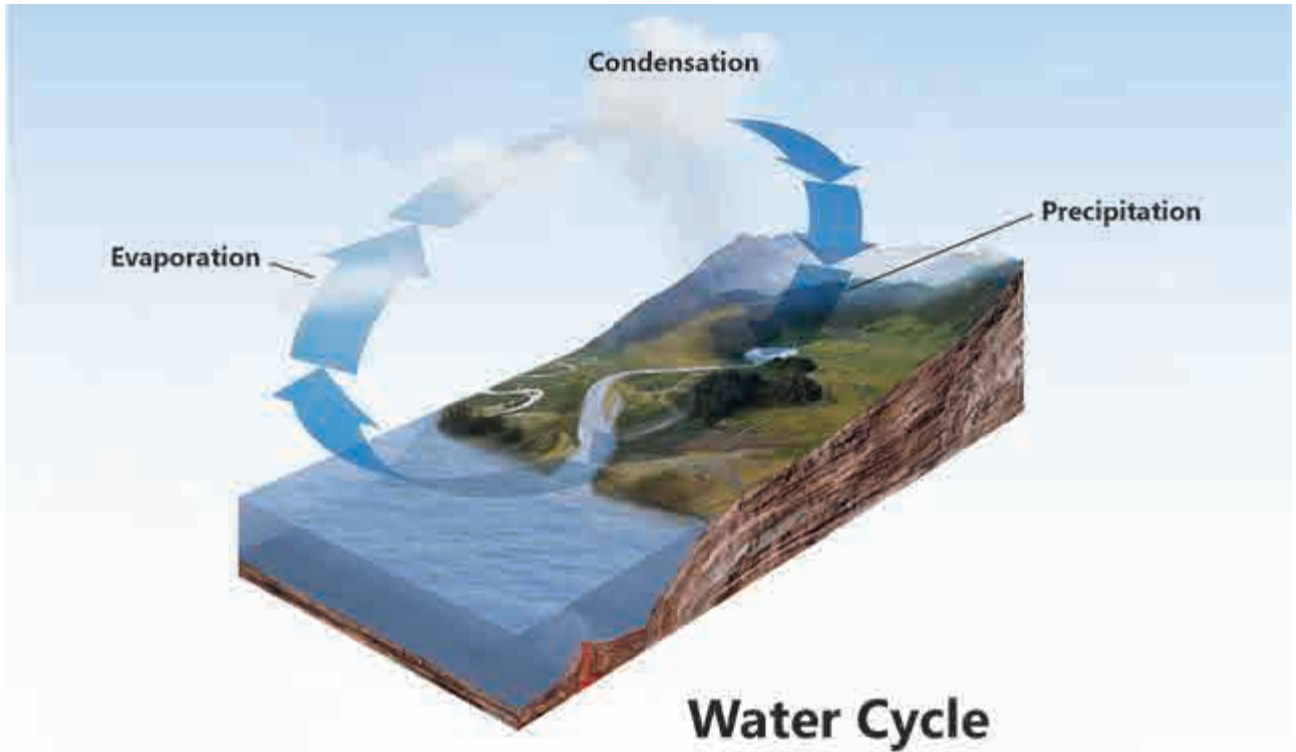


1.1 Hydrological Cycle

The Earth's water is not static. It is always in motion. This continuous movement of water on, above and below the earth's surface is called the Hydrological Cycle.



The **three major processes** involved in the water cycle are **evaporation, condensation and precipitation**. Water changes its form constantly i.e. Ice, water and water vapour. This process happens in the blink of an eye or even over millions of years.



வான்சிறப்பு: குறள் – 17

நெடுங்கடலும் தன்நீர்மை குன்றும் தடிந்தெழிலி
தான்நல்கா தாகி விடின்.

விளக்கம்:

மேகம் கடலில் நீரை முகந்து கொண்டு, மீண்டும் அந்நீரையே மழையாகப் பெய்யவில்லையென்றால், கடலிடத்துள்ள செல்வங்களும் குறையும்.

Translation in English:

If clouds restrain their gifts and grant no rain,
The treasures fail in ocean's wide domain.

Meaning:

Even the wealth of the wide sea will be diminished, if the cloud that has drawn (its waters) upgives them not back again (in rain).

Geo Connect

Water resources of the Earth can be broadly divided into **fresh water** and **salt water**.

2 Fresh Water

Rain water is considered to be the purest form of water, as it contains very less proportion of salts when compared to the oceans and seas. Hence it is called fresh water. A major part of fresh water is found in the frozen state in the form of ice caps and glaciers. Around 1% of it is found in the liquid state as rivers, streams, lakes, ponds etc. Surface water may also penetrate through porous rocks and gets collected beneath the Earth's surface. This is called groundwater.

Fact

Finland is known as the land of thousand lakes. There are 1,87,888 lakes in Finland.

**DO
YOU
KNOW?**

Water table is a level below the ground, where water is found collected beneath the Earth's surface.

Aquifers are porous rock strata filled with water, found below the earth's surface.

3 Oceans

The ocean is a continuous body of salt water that forms the major part of hydrosphere. Geoscientists believe that the oceans were formed on Earth nearly three billion years ago. It is difficult to believe that in the beginning there was no water on our planet. In due course of time, when the Earth started cooling, steam escaped from the interior and entered the atmosphere to form clouds. At first, the clouds brought incessant rains. The rain water filled the depressions for tens of thousands of years and eventually a super ocean was formed.

The continents and oceans are however, not evenly distributed in the northern and the southern hemispheres. The northern hemisphere holds 61% of land whereas the southern hemisphere holds 81% of water. It is because of this pattern of land and water distribution, the **northern hemisphere** is called as the **land hemisphere** and the **southern hemisphere** is called as the **water hemisphere**.



Land and Water Hemispheres

Hots

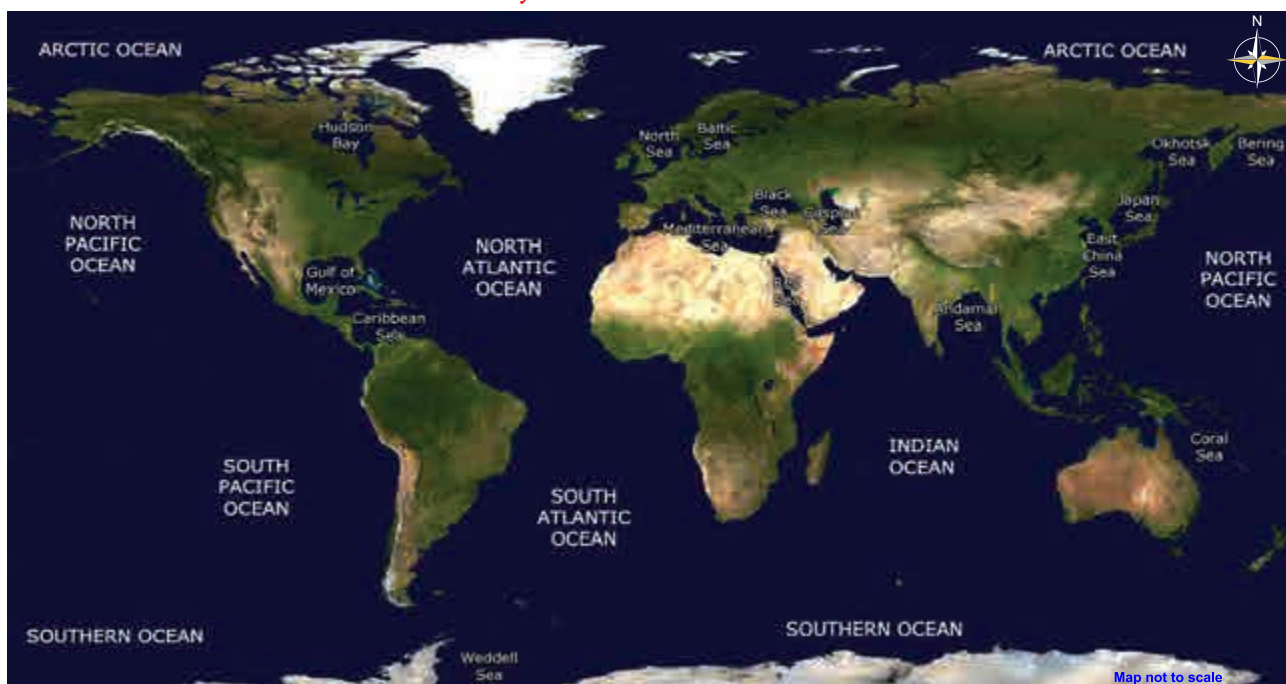
- 71% of the earth is covered by water, but very little can be used by humans. Why?
- The oceans are salty. Why?

Oceans and seas are considered as resource bowl of the earth because of the immense availability of food, minerals etc., Present distribution of the world's oceans and major seas are illustrated in the map.

3.1 Relief Of The Ocean Floor

The ocean floor is not flat as it was believed to be in the earlier days. It comprises of many complex and varied relief as observed on the earth's surface. The ocean floor also has high mountains, deep trenches and large flat plains. These features are formed due to the tectonic, volcanic and depositional activities.

Major Oceans and Seas



**DO
YOU
KNOW?**

Sylvia Earle is a famous American oceanographer . She was named as the first, 'Hero for the Planet' by Time magazine for her efforts towards marine life protections.



Jacques-Yves Cousteau (1910-1997) was a famous French Ocean explorer, who conducted extensive under-sea investigations .

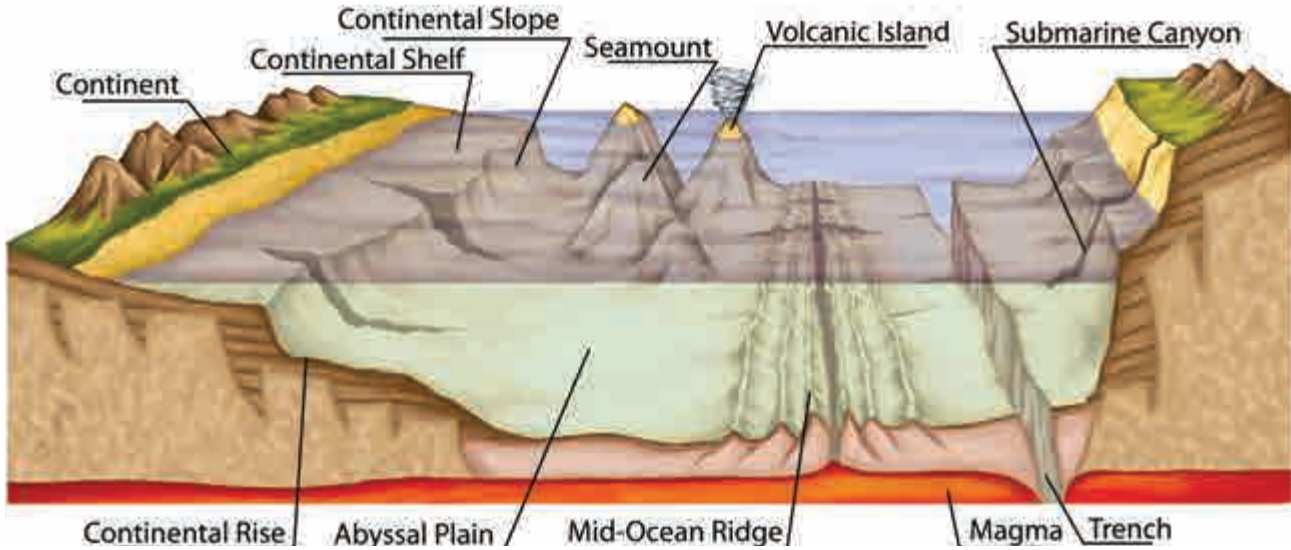
He belonged to the information service of the French Navy, and was sent on missions to Shanghai and Japan (1935-1938) and in the USSR (1939).

Honours

- Cross of War 1939-1945 (1945)
- U.S. Presidential Medal of Freedom (1985)

COMPARATIVE STUDY OF MAJOR OCEANS OF THE WORLD					
Ocean	Location	Average Depth (m)	Deepest Point (Below mean sea level)	Important Seas	Important Islands
Pacific Ocean	Bounded by North and South America on the east, Asia and Australia on the West and Antarctica on the south.	4,028	Challenger Deep in Mariana Trench (10,924 m)	Bering Sea, Sea of Japan, Okhotsk Sea, Yellow Sea, South China Sea, Coral Sea	Hawaii, Vancouver, Shikalin, Fiji
Atlantic Ocean	Extends from Greenland in the North to Antarctica in the South and located between North and South America in the west and Europe and Africa in the East.	3,926	Puerto Rico Trench (8,605m)	Baltic Sea, Black Sea, Caribbean Sea, North Sea, Mediterranean Sea, Norwegian Sea	Canary Island, New Found Land, Azores, Greenland, Iceland
Indian Ocean	Bounded by Asia in the north, Africa in the west, Australia in the east and Antarctica in the south.	3,963	Java Trench in Sunda Deep (7,258 m)	Red Sea, Persian Gulf, Arabian Sea, Andaman Sea, Bay of Bengal	Andaman and Nicobar Islands, Lakshadweep Islands, Sri Lanka, Pamban Islands
Southern Ocean	Found to the south of 60° South latitude and encircle Antarctica.	4,000 to 5,000	South Sandwich Trench (7,235 m)	Weddell Sea, Amundsen Sea, Davis Sea, Ross Sea	Trinity Islands, Barry Islands, Wednesday Islands, Saddle Islands, Tasmania
Arctic Ocean	Surrounded by Europe, Asia, North America, Greenland, and by several islands.	1,205	Fram Basin (4,665 m)	Beaufort Sea, Hudson Bay, White Sea	Amsterdam Islands, Monumental Islands, Hyde Parker Islands, Shoe Islands

Major Relief Features of the Ocean



The ocean basins are characterised by the following major relief features:

- ✓ Continental shelf
- ✓ Continental slope
- ✓ Continental rise
- ✓ Deep sea plain or Abyssal plain
- ✓ Oceanic deep
- ✓ Oceanic ridge



(A) Continental Shelf

A shallow and gently sloping platform extending out from the adjoining continental land mass into the sea is called Continental Shelf. It is almost a uniform zone of sea bed with a gentle gradient.

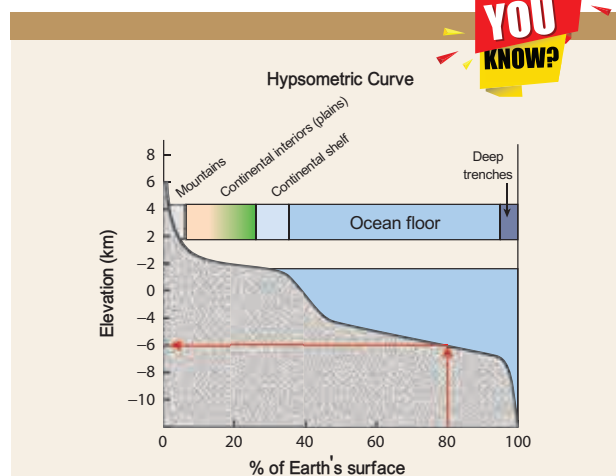


Continental Shelf

The continental shelf is of great significance for the following reasons:

- They are shallower, thus enables sunlight to penetrate through the water. This encourages abundant growth of grass, sea weeds and plankton. Hence these zones become the **richest fishing grounds** in the world. Eg. The Grand Banks of Newfoundland.
- The continental shelves have extensive deposits of minerals and mineral fuels. Hence, this zone becomes accessible for oil drilling and mining activities. E.g. Mumbai High in Arabian Sea.

DO YOU KNOW?



A Hypsometric Curve is a graphic representation which shows the height of a certain place found on land and the height of ocean features at sea.

'Hypso' means height in Greek.

Geo Connect

ONGC: Oil and Natural Gas Corporation is India's largest oil and gas exploration and production company. Its latest estimate is that about 20 million tons of oil reserves are found west of Mumbai High off shore.

**(B) Continental Slope**

A steep slope which descends from the edge of the continental shelf to the deep ocean-bed is called continental slope. It forms a boundary between the Continental Crust and the oceanic crust. This zone is free from deposits as they are steep. The most important characteristic of continental slope is the **presence of deep canyons and trenches**. Due to the low penetration of sunlight, the slope has nearly freezing temperature. Hence aquatic life has very slow rate of metabolism.

(C) Continental Rise

At the base of the continental slope is a gently sloping layer of sediments which merge into the deep-sea floor. This underwater feature found between continental slope and abyssal plains is called the continental rise. It **consists of submarine fans** which are similar to the alluvial fans found on land.

(D) Deep Sea Plains or Abyssal Plains

The deep sea plains or abyssal plains are underwater plains found on the deep ocean floor. These plains extend from continental rise to the mid oceanic ridges. The gradient of the slope is very gentle



and it appears as a uniform flat and featureless plain. These plains are usually covered by the thick layer of sediments composed of clay, silt and sand, brought by the rivers. These are often characterized by features like abyssal hills, sea mounts, guyots, coral, atoll etc.

DO YOU KNOW?

Abyssal plains in the Atlantic and Indian Oceans tend to be extensive than the Pacific Ocean because, majority of the world's largest rivers empty their sediments into either Atlantic or Indian Ocean. E.g. Amazon, Ganga and Brahmaputra rivers.

(E) Oceanic Deeps

Trenches are the deepest part of the oceans and occupy about 7% of the total relief of the ocean floor. The ocean temperature in the trench is slightly cooler than the freezing temperature. As they are sediment free, most **trenches** are V-shaped with steep sides. **Epicentre of the great earthquakes** are all found in the trenches.

DO YOU KNOW?

Dragon Hole is the deepest known underwater sink hole in the world. The local fishermen call it the 'eye' of the South China Sea.

**(F) Oceanic Ridge**

Oceanic ridge is a continuous submarine mountain chain. They are made of young basaltic rock formed when two tectonic plates moves apart. The mid-ocean ridge is probably the most extensive single feature of the earth's topography. Two of the most well known mid-

ocean ridges are the Mid-Atlantic Ridge and the East Pacific Ridge. The Mid-Atlantic Ridge is the largest unbroken oceanic ridge.

DO YOU KNOW?

Fathoms ⇒ A nautical measurement of the depth of water in the ocean.

Isobath ⇒ An imaginary line on a map joining the points of equal depths.

Isohaline ⇒ An imaginary line on a map joining the points of equal salinity in oceans.



Mid Atlantic Ridge

3.2 Ocean Temperature and Salinity

Like land masses, ocean waters also vary in temperature from place to place, both at the surface and at its depths. As the warming and cooling of water is slower than the land, the annual range of temperature in any part of the ocean is very much lower. The mean annual

Geo Connect

The Bermuda Triangle, also called the Devil's Triangle, is a loosely defined region in the Western part of the North Atlantic Ocean, where a number of aircraft and ships are said to have disappeared. Collect recent news about this triangle and have a discussion about the same in your class room.



temperature of the ocean water in equatorial regions is about 21° C and almost drops down to freezing point at the polar region.

The degree of concentration of salts in the sea water is called **salinity**. It is usually expressed in terms of parts per thousand (ppt or ‰). Salinity varies both horizontally and vertically. The influence of temperature on ocean salinity depends upon the heating up of the surface water, which varies from tropics to polar regions. When the sun heats up the surface layer of water in the tropics, the salt content is left out in the oceans after evaporation. Thus salinity is maximum at the tropics and lower at the equator and the poles.

Hots

- Why is the salinity at the equator less even though it experiences high temperature?
- Though Caspian Sea is enclosed, its salinity is just 14 to 17 parts per thousand. why is it so?

DO YOU KNOW?

The sea / ocean water does not contain calcium in great quantities. Many of the aquatic animals with shells use the dissolved calcium in the sea water to build their protective shells.

3.3 Movement of the Ocean Water

The ocean water is dynamic. Temperature, salinity, density, external forces of the sun, moon and the winds keep the ocean waters in movement, both horizontally and vertically. Waves and currents are in **horizontal motion** while tides have **vertical motion**.

(A) Waves

Of all the movements of the oceans, sea waves are considered to be the strongest. Sea waves are ripples on water caused when winds blow over the sea. The height of these waves depends on the speed of wind, its duration and the direction from which they blow. Sometimes waves are also caused by tremors felt on the ocean floor. Such waves are quite destructive and called **Tsunami**.

DO YOU KNOW?

The energy of the falling wave water is used to turn hydro turbines to generate power. Wave energy power plants have been installed at Vizhinjam in Kerala coast and Andaman and Nicobar islands of India.

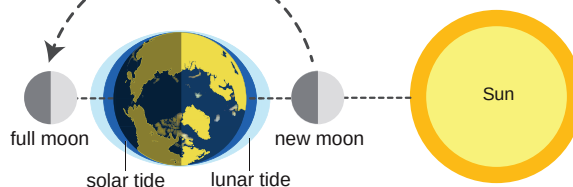
(B) Tides

The periodic rise and fall of sea water due to the gravitational pull of the sun and moon on earth are called tides. They are classified broadly into **Spring tides** and **Neap tides**.

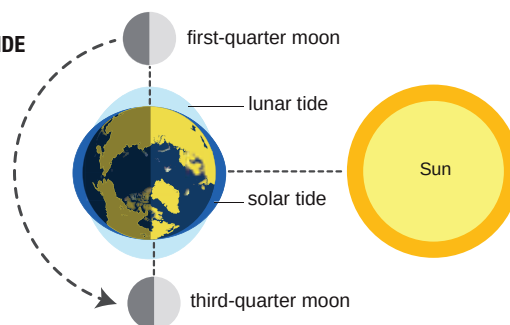
When the **Sun, Moon and Earth** are aligned in the same line, the collective gravitation pull of the sun and moon on earth's water strengthens to form a high tide known as **spring tide**. Such tides always occur on **full moon** and **new moon** days.

TYPES OF TIDES

SPRING TIDE



NEAP TIDE



When the **sun and the moon** are at **right angles**, their gravitational forces work against each other, causing a low tide called **neap tide**. A neap tide occurs between two spring tides i.e., twice a month, when the **first and last quarter moon** appears.

DO YOU KNOW?

Potential tidal energy zones of India are the Gulf of Khambhat, Gulf of Kutch and Sundarbans.



DO YOU KNOW?

MARITIME BORDERS

Maritime boundary of most the Countries is fixed to be 12 nautical miles from the baseline. This was fixed by the U.N. Convention on the Law of the sea 2013 where as Jordan and Palau have 3 nautical miles as their maritime boundary and Benin, Republic of Congo, El Salvador, Peru and Somalia have 200 nautical miles.

CASE STUDY

Tides and Border Security Force(BSF)



The strategic role played by the Border Security Force (BSF) to guard the creek of Rann of Kutch is an enormous one.

Firstly, most of the creek area gets submerged due to high tide and at times of low tide, the creek emerges out along with poisonous creatures like snakes, scorpions, etc. Even the landscape view differs

in the morning and in the evening due to tidal effects twice a day. Secondly, the turbulence here in the creek area is more violent than the open sea. Thirdly, the salt marshy terrain and the humid weather conditions affect the health of the soldiers. Strong winds, scorching heat waves, high salinity of the coastal waters and mirages also affect the eyes of the soldiers.

Natural factors like currents, tides, shifting sand bars and lack of permanent landmarks on the boundary, lead to great difficulty in safeguarding this sensitive area under military domain.



(C) Oceans Currents

The movement of oceanic water on the surface and at the depths in a definite direction is called ocean current. Ocean currents are in **clockwise motion in the northern hemisphere** and in the **anti-clockwise motion in the southern hemisphere**.

The factors that generate ocean currents are:

- Earth's rotation
- Prevailing winds and
- Differences in temperature and salinity of ocean water.

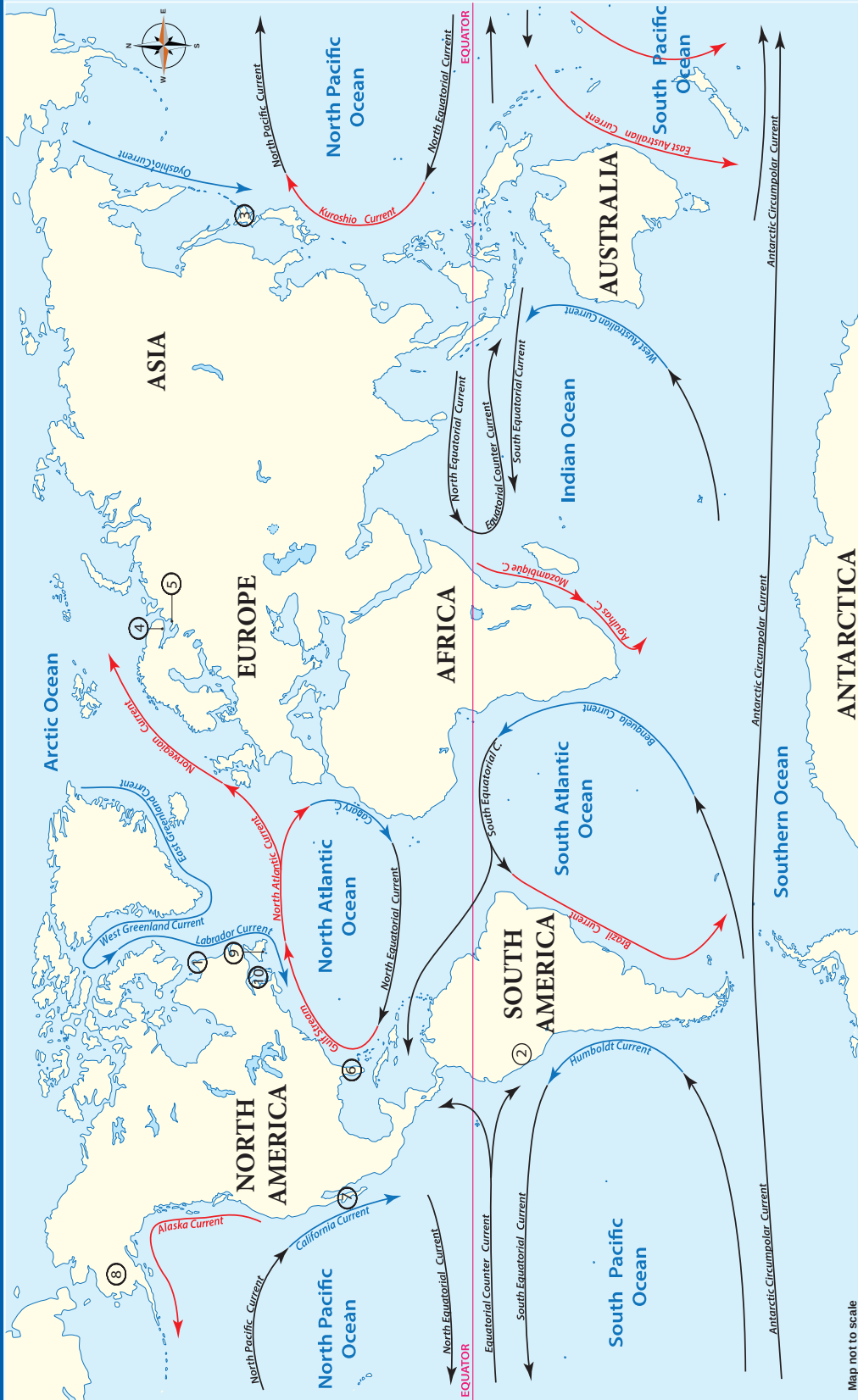
On the basis of temperature, ocean currents are classified as **warm currents** and **cold currents**. The movement of ocean currents

from the low latitudes (tropical zones) towards high latitudes (temperate and polar zones) is called warm current. Eg. Gulf Stream in Atlantic Ocean, North Equatorial Current in Pacific Ocean.



NIO (National Institute of Oceanography) was established in 1st January 1966. The headquarters of NIO is located at Dona Paula, Goa. It Conducts research and observations to understand oceanic features, Ocean engineering, marine Archaeology etc.

Major Ocean Currents of the World



→ Warm current
→ Cold current

- | | | | | |
|-------------|------------------|----------------------|---------------|-----------------|
| 1. Labrador | 3. Hokkaido | 5. Port Severodvinsk | 7. California | 9. Newfoundland |
| 2. Peru | 4. Port Murmansk | 6. Florida | 8. Alaska | 10. Grandbank |

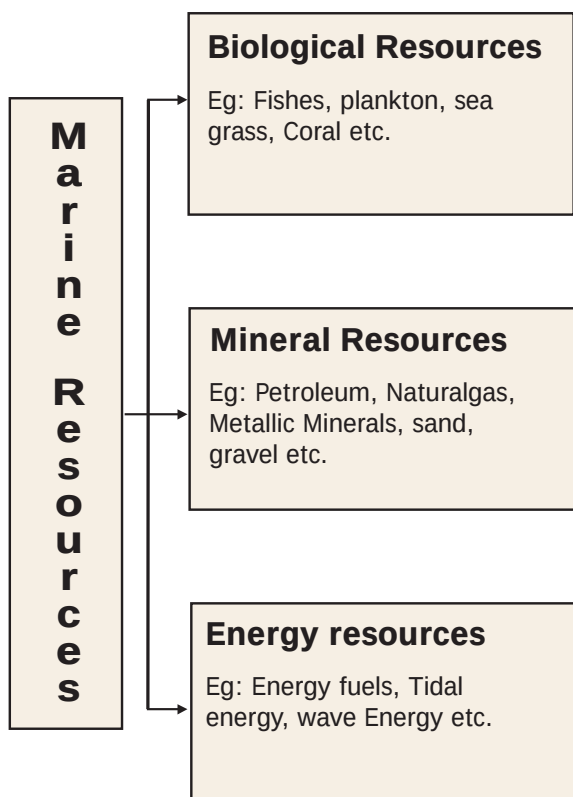
DISTRIBUTION OF MAJOR OCEAN CURRENTS AND EFFECTS		
Ocean	Name of the Current	Effects
South Atlantic Ocean	Benguela Current [Cold]	Leads to foggy conditions along the coast of Namibia. Helped in the development of Namibian & Kalahari deserts
North Atlantic Ocean	Canaries [Cold]	Influences the extension of Sahara Desert
	Gulf Stream [Warm]	Its confluence with the Labrador current produces heavy fog along the coast of Newfoundland, obstacles the navigation. Hence, Newfoundland is one of the major fishing grounds of the world.
	North Atlantic Drift [Warm]	It keeps the ports at higher latitudes ice-free throughout the year. Eg. Port of Rorvik (Norway), Murmansk and Severodvinsk (Russia)
	Labrador [Cold]	Its confluence with Gulf Stream creates fog and hinders navigation.
South Pacific Ocean	Peruvian / Humboldt Current [Cold]	Helped in the desertification of the Atacama desert. El-Nino effects the weather in western & S. America. It also affects timely arrival of Indian monsoon
North Pacific Ocean	Kuroshio Current [Warm]	It plays a vital role in carrying large amount of heat to the adjacent land areas and forms cloud cover that cause rainfall.
	Oyashio / Kurile Current [Cold]	Its confluence with the Kuroshio current produces heavy fogs around Hokkaido, which become potential hazards for navigation. Hence, Hokkaido acts as the major fishing ground of the world.
	Alaska Current [Warm]	Keeps the seaports of Alaska open throughout the year.
	California Current [Cold]	Leads to foggy conditions along the coast of California. It helped in the development of Arizona & Sonora deserts.
Indian Ocean	West Australian Current [Cold]	Leads to foggy conditions along the western coast of Australia. It helped in the genesis of west Australian desert.

The movement of ocean currents from high latitudes (temperate and polar regions) to low latitudes (tropical regions) is called

cold currents. Eg. Labrador Current in Atlantic Ocean and Peruvian Current in Pacific Ocean.

4 Marine Resources

The biotic and abiotic resources found in the oceanic water and at the bottoms are called marine resources. The ocean's resources play a vital role in sustaining the needs of society. A diverse array of marine organisms is used for food, medicine, cosmetics, and a wealth of industrial applications. The world's demand for energy, minerals and water have become increasingly dependent on non-living marine resources.



Hots

- What will happen if the seas and oceans contain only fresh water?

4.1 Conservation Of Marine Resources

Oceans are the life blood of planet earth and mankind. The humankind depends on the marine resources for its survival. They are also essential for the economic prosperity, social well-being and quality of life. Oceans have extensive deposits of oil reserves. Besides a major fishing ground, it helps in generating non-conventional energy, development of many ports and harbours for trade activities. Coastal tourism also attracts people around the world, thereby contributing to the economy of many countries.

The marine environment is faced with a number of increasingly severe threats. These include loss of biodiversity, loss of habitats, contamination through dangerous substances, and the impacts of climate change. Yet the marine resources are not deteriorating, it is necessary to find better ways of managing it.



The Gangetic Dolphin was declared the National Aquatic Animal in 2010. This has become an endangered species. Are the Dolphins really at risk? If so, list out the reasons.



The Great Barrier Reef

The Great Barrier reef is the world's largest coral reef system composed of 2,900 individual reefs and 900 islands stretching for about 2,000 kilometres. It covers an area of about 3,50,000 km. The reef is



located in the Coral sea, off the coast of Queensland, Australia. The Great Barrier Reef can be seen from the outer space. This sprawling coral reef system is one of the most biologically diverse places on the planet. Coral reefs are built by billions of tiny organisms, known as Coral polyps. CNN labelled it as one of the seven natural wonders of the world.

Recap

- Hydrosphere, the third sphere of Earth, is a collection of all forms of water on the earth.
- Hydrological cycle is the continuous movement of water on Earth.
- Water is available on Earth as fresh and salt water. Over 97% of the water on the Earth's surface is confined to oceans.

- The five major oceans of the world are the Pacific, the Atlantic, the Indian, the Southern and the Arctic ocean.
- The major relief of the ocean floor are continental shelf, continental slope, continental rise, abyssal plains, ocean deeps and ocean ridges.
- Ocean water is dynamic in nature. Ocean temperature and ocean salinity are the two major factors that influence the movement of ocean waters.
- Marine resources are nothing but the biotic and abiotic resources found in the oceans.
- Oceans are the lifelines of Earth and mankind. Hence, they need to be conserved.

A-Z

GLOSSARY

Ocean floor is the bottom of the ocean, also called sea bed.

Gradient is a degree of steepness i.e., of a relief feature.

Trench is a very long narrow depression on the ocean floor.

Sea mount is an underwater mountain that rise from the sea floor due to undersea volcanic activity.

Guyot is a flat topped under water volcanic mountain.

Atoll is a ring shaped coral reef or island found in tropical and sub tropical seas and oceans.

Ridge is a long narrow chain of hills or an elevated land.

Inherent energy is a continuous or permanent generation of energy.

EXERCISES :

I Choose the correct answer

- The Sunda Trench lies in the _____ ocean.
 - Atlantic
 - Pacific
 - Indian
 - Antarctic
- The temperature of the ocean waters generally _____ at greater depth.
 - increases
 - decreases
 - remains constant
 - none of the above
- Ocean currents are produced due to _____.
 - due to rotation of earth
 - due to variation in temperature
 - due to earth's movement
 - all the above
- Consider the following statements.
 - Most of the fishing grounds occur in areas where the continental shelf is wide.
 - Fishing is well developed in warm tropical waters.
 - Mixing of warm and cold currents facilitates plant nutrients for fish.
 - Inland fishing became significant in India.
 - 1 and 2 are correct.
 - 1 and 3 are correct.
 - 2,3 and 4 are correct.
 - 1,2 and 3 are correct
- The oceanic ridge comes into existence due to
 - convergence of tectonic plates
 - divergence of tectonic plates
 - lateral movements of plates
 - steering of plates.
- Which of the following indicates the correct sequence of the topography beneath the surface of the sea?
 - Continental shelf-Continental slope-Sea plain-Sea trench.
 - Continental slope-Continental shelf-Sea plain-Sea trench.
 - Sea plain-Continental slope-Continental shelf-Sea trench.
 - Continental slope-Sea plain-Continental shelf-Sea trench.



- Which of the following is not correctly matched?
 - Gulf Stream—Pacific Ocean
 - Labrador current—North Atlantic Ocean
 - Canary current—Mediterranean sea.
 - Mozambique current – Indian Ocean.
- The amount of planktons to be found in the ocean is determined by
 - Depth of the water.
 - Ocean currents.
 - Temperature and Salinity.
 - Length of day and night.
 - 1 and 2 are correct
 - 1,2 and 3 are correct
 - 1,3 and 4 are correct
 - All are correct.

Questions 9 to 13 are of Assertion(A), Reason (R) type.

- both A and R are correct and R explains A.
 - both A and R are correct but R does not explain A.
 - A is correct but R is false.
- Assertion (A): Oceans are always shown in blue in maps.
Reason(R): It indicates the natural colour of the oceans.
 - Assertion(A): Flat topped seamounts are known as Guyots.
Reason(R): All guyot features are of volcanic origin.
 - Assertion(A): Submarine canyons are deep gorges on the ocean floor.

Reason(R): They are mainly restricted to continental shelf, slope and rise

12. Assertion (A): Atolls are more common in the Atlantic ocean.

Reason(R): The marine population at the depth is less.

13. Assertion(A): Salinity is higher in closed ocean basins.

Reason(R): Enclosed ocean basins undergo little mixing with the open ocean.

II. Match the following:

- | | |
|-----------------------|------------------------------------|
| 1. Mariana trench | - Decreases salinity in the oceans |
| 2. Great Barrier Reef | - Along the coast of Japan |
| 3. Sargasso sea | - Deepest point in the Pacific |
| 4. Spring tides | - Australia |
| 5. Heavy rains | - Second order landform |
| 6. Kuroshio current | - North Atlantic Ocean |
| 7. Continental slope | - On full and new moon days |

III. Answer the following in brief:

- What do you mean by the term Hydrosphere?
- What is hydrological cycle?
- Mention the various relief features of ocean floor
- What are the factors that generate the ocean currents?
- Write a brief note on sea waves.
- What do you mean by the ocean salinity?

IV. Distinguish the following:

- Spring tide and Neap tide.
- Abyssal plains and Ocean deeps.
- Tidal power and Hydel power.

V. Give reasons for the following:

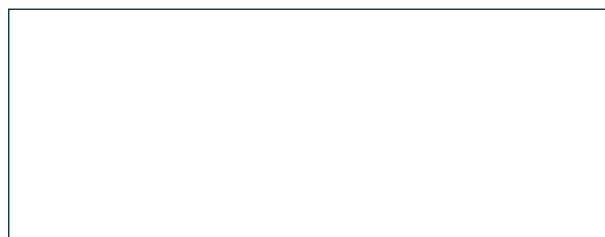
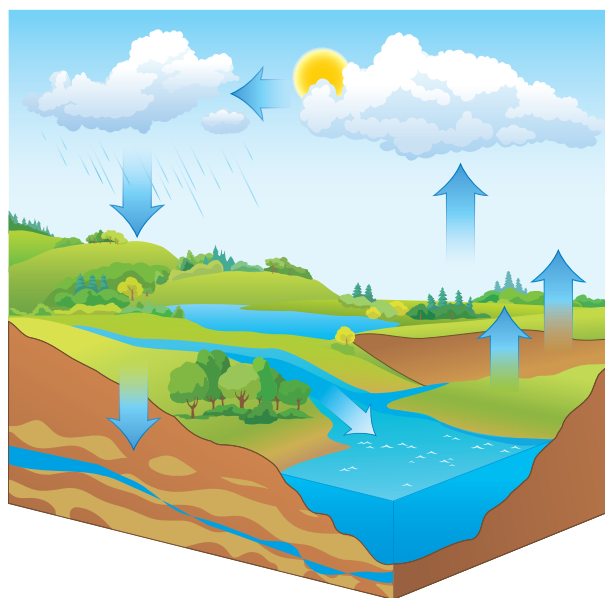
- The northern hemisphere and the southern hemisphere are called land and water hemispheres respectively.
- The ocean waters are saline in nature.
- Continental shelf provides good fishing ground.
- Salinity of Bay of Bengal is greater than the Arabian sea.

VI. Answer in a paragraph:

- Write a paragraph on the origin of oceans.
- Write a note on continental shelf and continental slope.
- What do you mean by ocean currents? Explain its types.
- Explain the influences of the marine resources on mankind.

VII. Picture Study

What does this picture depict? Write a note on the processes involved in it.



VIII. Enrichment Activity

A) Study the map of ocean currents and then complete the table given below.

Major Ocean currents		
Oceans	Northern Hemisphere	Southern Hemisphere
Pacific Ocean		
Atlantic Ocean		
Indian Ocean		

B) Map Work:

Mark the cold currents in blue and the warm currents in red in a World outline map.



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3. Oceanography (A Brief Introduction) by K. Siddhartha Reprinted 2008, Kisalaya Publications Pvt. Ltd., New Delhi, India.
4. The Science of Ocean by A.N.P. Ummer Kutty Reprinted 2012, National Book Trust, New Delhi, India.



INTERNET RESOURCES

<http://www.britannica.com>
<http://www.clearias.com>
<http://earth.usc.ed>
<http://www.pmfias.com>
<http://svs.gsfc.nasa.gov>

A-Z

கலைச்சொற்கள்

Ocean Floor	–	கடல் தரைப்பரப்பு
Gradiant	–	சாய்வு
Trench	–	அகழி.
Seamounts	–	கடல் குன்றுகள்
Guyots	–	ஆழ்கடல் மட்டக்குன்றுகள்
Atoll	–	வட்டப்பவளப்பாறை
Ridge	–	கடலடி மலைத்தொடர்
Inherent energy	–	உள்ளார்ந்த ஆற்றல்



ICT CORNER

Geography - Hydrosphere

Let us know the names of the earth's spheres by using memory cards



Steps

Step 1: Open the Browser type the URL Link given below (or) Scan the QR Code.

Step 2: You see the Earth's Spheres cards.

Step 3: Click the cards and choose correct Spheres and Examples



Step 1



Step 2



Step 3

Website URL :

<https://matchthememory.com/Earthspheres>

<https://www.purposegames.com/game/the-hydrosphere-game>



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UNIT

2

BIOSPHERE



Learning Objectives

- To understand the scope and meaning of biosphere.
- To understand the meaning of ecosystem, its components, functions and biodiversity.
- To understand the major biomes of the world.
- To know the need for conservation of biomes.



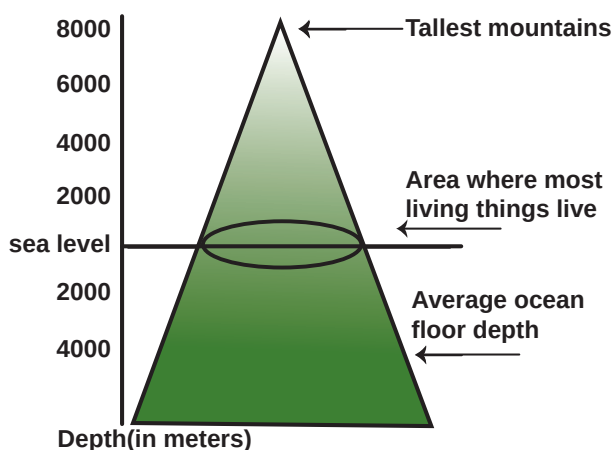
This unit deals with the meaning of ecosystems and its components. The energy flow among the biotic and abiotic environment is discussed. It also explains the significance of biodiversity and its loss. Both terrestrial and aquatic biomes are dealt in detail.

Biosphere, the fourth sphere of the Earth, is a life supporting layer that exists on the earth's

surface. This layer on earth encompasses the Lithosphere, Hydrosphere and Atmosphere. It includes flora and fauna that thrive on or near the earth's surface. The vertical range of the biosphere is approximately 20 km, which is measured from the ocean floor to the troposphere. However, most plants and animals live in a very narrow section for about 1 km above and below the Mean Sea Level (MSL). Biosphere is made up of different

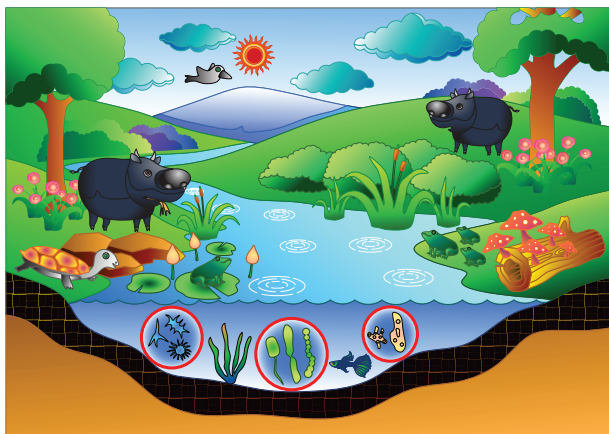
ecosystems and biomes. All living things, large or small, are grouped into **species**. The area in which an animal, plant or micro organism lives is called its **habitat**. A wide variety of plants and animals live in a particular habitat known as **biodiversity**.

VERTICAL RANGE OF BIOSPHERE ON EARTH



1 ECOSYSTEM

An ecosystem is a community, where all living organisms live and interact with one another and also with their non-living environment such as land, soil, air, water etc. Ecosystems range in size from the smallest units (Eg: bark of a tree) that can sustain life to the global ecosystem or ecosphere. (Eg: Cropland, Pond ecosystem, Forest ecosystem, Desert ecosystem etc.). Biosphere harbours all ecosystems on the earth and sustains life forms including mankind.



Activity

Narrate the forest ecosystem in your own words.



- The branch of science that deals about ecosystem is called *Ecology*.
- A person who studies ecology is referred to as an *Ecologist*.

1.1 Components of ecosystem

An ecosystem consists of three basic components, namely

- A) Abiotic components
- B) Biotic components and
- C) Energy component



A) Abiotic Components

Abiotic components include the non-living, inorganic, physical and chemical factors in the environment. Eg. Land, Air, Water, Calcium, Iron etc.

B) Biotic Components

Biotic components include plants, animals and micro organisms. Biotic components can be classified into three categories :

- **Producers** are self nourishing components of the ecosystem. Hence they are called

Autotrophs. They are found both on land and water. Eg. Plants, Algae, Bacteria etc.

- **Consumers** are those that depend on producers, directly or indirectly. Hence they are called **Heterotrophs**.

The common category of consumers are:

- ✓ **Primary consumers** depend on producers for their food. They are exclusively herbivores. Eg. zebra, goat etc.
- ✓ **Secondary consumers** are small carnivores i.e., they consume herbivores. Eg. lion, snake etc.
- ✓ **Tertiary consumers** are top carnivores that prey on both herbivores and carnivores. Eg. owl, crocodile etc.
- **Decomposers** are some organisms that are incapable of preparing its own food. They live on dead and decaying plants and animals. Hence they are called **Saprotrophs**. Eg. fungus, mushrooms etc.

C) Energy Components

All organisms in the biosphere use energy to work and convert one form of energy into another. The Sun is the ultimate source of energy for the biosphere as a whole. The solar energy gets transformed into other forms of energy through the various components in the ecosystem. The producers, consumers and the decomposers contribute a lot to the energy flow in an ecosystem.

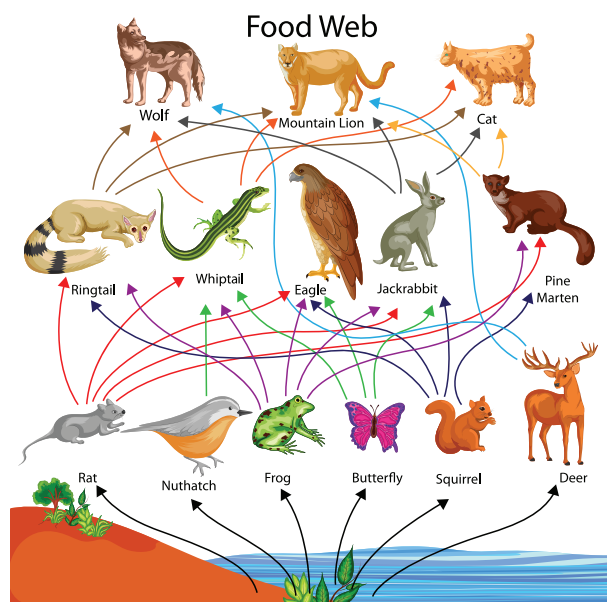
Activity

*Find the etymology of **Herbivores, carnivores, omnivores and scavengers** using dictionary.*

1.2 Functions of an ecosystem

The living organisms form an interacting set of flora and fauna which are organized into trophic levels, food chains and food webs. The functioning of an ecosystem depends on the pattern of the energy flow, as it helps in the

distribution and circulation of the organic and inorganic matter within an ecosystem. Energy flow generally takes place in a hierarchical order in an ecosystem through various levels. These levels are called **trophic levels**. The chain of transformation of energy from one group of organisms to another, through various trophic levels is called a **food chain**. A system of interlocking and interdependent food chains is called a **food web**.



2 BIODIVERSITY

Biodiversity or biological diversity refers to a wide variety of living organisms (plants, animals and other micro organisms) which live in a habitat. It is highly influenced by topography, climate as well as human activities. It represents the strength of the biological resources of a place on earth. In biodiversity, each species, no matter how big or small, has an important role to play in the ecosystem. It maintains the ecological balance and facilitates social benefits such as tourism, education, research etc. over an area.

2.1 Loss of biodiversity

The extinction of species (flora and fauna) due to human and natural influences is called **loss of biodiversity**. The biodiversity loss has a great impact on mankind and also affects

land, water, air etc. Habitat destruction due to deforestation, population explosion, pollution and global warming are the major cause for loss of biodiversity. Sometimes, habitat loss is so severe or happens so quickly that it results in a species being eliminated from the planet. Scientists are still trying to decide what caused the mass extinction of dinosaurs.

A healthy eco system provides clean water, pure water, enriched soil, food, raw materials, medicines etc. Hence stable biosphere has to be conserved.

**DO
YOU
KNOW?**

- An ecological region that has lost more than 70% of its original habitat is considered a *hotspot*.
- Hotspots in India are the Himalayas, Western Ghats, Indo Burma Region and Sundaland.

3 BIOMES

A biome is a geographically extensive ecosystem where all flora and fauna are found collectively. It is the total assemblage of plant and animal life interacting within the biosphere. Biomes are defined by abiotic factors like, relief, climate, soils and vegetation. They are classified into two broad categories, **terrestrial biomes** and **aquatic biomes**.

3.1 TERRESTRIAL BIOMES

Terrestrial biomes is a group of living organisms that live and interact with one another on land. They are mainly determined by temperature and rainfall. Some of the major terrestrial biomes of the world are

- A. Tropical Forest Biomes
- B. Tropical Savanna Biomes
- C. Desert Biomes
- D. Temperate Grassland Biomes
- E. Tundra Biomes



<https://www.nature.com/scitable/knowledge/library/terrestrial-biomes-13236757>

CLASSIFICATION OF BIOMES

Natural: Terrestrial



Grassland



Forest



Desert

Natural: Aquatic



Marine: Oceans



Freshwater

Artificial or Manmade



Aquarium



Crop Land

A. Tropical Forest Biomes

The tropical forest biome is comprised of several sub-biomes, including evergreen rainforest, seasonal deciduous forest etc.

This biome extends between 10° N and 10° S of the Equator. Central and South America possess half of the world's tropical forests. The climate in these biomes shows little seasonal variation with high annual rainfall and relatively constant, high temperature. This unique weather condition favours thick vegetative cover.



Tropical forests have the highest biodiversity and primary productivity of any of the terrestrial biomes. The Amazon basin, Congo basin and Indonesian islands are the major regions of this biome. These regions have very dense forests and so have great economic importance. Human settlements are found scattered here. They sustain their livelihood through food gathering, fishing, lumbering and shifting cultivation. Due to the humid nature of this biome, the people get afflicted to tropical diseases like malaria, yellow fever etc. The chief trees found here are rubber, bamboo, ebony, etc. Bats, pheasants, jaguars, elephants, monkeys etc. are the important birds and animals found here.

DO YOU KNOW?

The U.S. National Cancer Institute has identified about 70% of the plants used for treating cancer. Which are found only in rain forests. Eg. Lapacho.



B. Tropical Savanna (Grasslands) Biomes

Tropical grasslands are generally found between tropical forests and deserts. Tropical Savanna biomes are found between 10° to 20° N and S latitudes. These grasslands are generally flat and are found in the Sahel, south of Sahara in East Africa and in Australia. This biome is generally hot and dry and experiences moderate to low rainfall. So, the grass which grow here are tall and sharp. Hence the chief occupation of the people found here is herding. The primitive people living here are **nomadic**.



The common animals found here are the lion, leopard, tiger, deer, zebra, giraffe etc. Flora such as Rhodes grass, red oats grass, lemon grass etc. are found in this biome.

DO YOU KNOW?

Of late, parts of the Savanna grasslands are being converted into farmlands, which pose a great threat to the wide range of fauna. For Eg. The population of the big cats like cheetah, lion etc. are dwindling drastically.

C. Desert Biomes

Deserts are usually found on the western margins of the continents between 20° and 30° N and S latitudes. The annual rainfall is less than 25 cm in these regions. Due to the lack of rainfall and arid conditions, these regions do not possess any vegetation but have special vegetation type called Xerophytes. As the soil is sandy and saline, deserts remain

agriculturally unproductive. Drought resistant thorny scrubs and bushes, palms are found here.



Tribal people who live here practice food gathering and hunting. They move their temporary settlements frequently in search of pastures. Transportation becomes very difficult here and is carried on by camels. Reptiles like snakes, lizards, scorpions etc., are most commonly found here.

DO YOU KNOW?



An oasis is a fertile fresh water source found in deserts and semi-arid regions. Oases are fed by springs. Crops like date palms, figs, citrus fruits, maize etc. are cultivated near these oases.

D. Temperate Grassland Biomes

Temperate Grasslands are usually found in the interior of the continents and are characterized by large seasonal temperature variations, with warm summer and cold winter. The type of



grassland in these regions strongly depends upon precipitation. **Higher precipitation** leads to **tall** and soft grass and **lower precipitation** leads to **short** and soft grass. These regions favour wheat cultivation. Extensive mechanised agriculture is practised due to lack of farm labour. Pastoral industry becomes the main occupation, thereby facilitating slaughtering of animals, packing of raw and processed meat, dairy products etc. The common birds and animals are grass hopper, wolf, bison, prairie dog etc.

DO YOU KNOW?

Temperate grasslands are called differently in different parts of the world.

Prairies	--	North America
Steppes	--	Eurasia
Pampas	--	Argentina and Uruguay
Veld	--	South Africa
Downs	--	Australia and Newzealand

E. Tundra Biomes

These vast lowlands are found where the ground remains frozen. Greenland, Arctic and Antarctic regions and Northern parts of Asia, Canada and Europe fall in this biome. These regions are also called **Barren lands**. This biome experiences long severe winter and short cool summer. Due to the prevailing of low temperature and short growing seasons, the net primary productivity is very low in tundra. People are nomadic. Hunting and fishing are their major occupations. The population here is extremely sparse and the harsh environment makes them change their settlement frequently.



They live in igloos in winter and in tents during summer. Arctic moss, Arctic willow, lichens etc. grow here. Fauna like the polar bear, wolverine, reindeer, snowy owl are found here.

3.2 AQUATIC BIOMES

Aquatic biome is a group of living organisms that live and interact with one another and its aquatic environment for nutrients and shelter. Like terrestrial biomes, aquatic biomes are influenced by a series of abiotic factors. It is broadly classified as **fresh water biomes and marine biomes**.

A. Fresh water Biomes:

It comprises lakes, ponds, rivers, streams, wetlands etc. It is influenced by various abiotic components such as the volume of water, water flow, composition of oxygen, temperature, etc. Humans rely on freshwater biomes for drinking water, crop irrigation, sanitation and industry. Water lily, lotus, duck weeds etc. are the common plants found here. Trout, salmon, turtles, crocodiles etc. are the animals found here.



B. Marine Biomes:

They are the largest aquatic biomes on earth. They are continuous bodies of salt water and provide a wide range of habitats for marine plants and animals. Coral reefs are a second kind of marine biomes within the ocean. Estuaries, coastal areas where salt water and fresh water mix, form a third unique marine biome. As water provides maximum mobility to marine organisms, nutrients are circulated more quickly and efficiently here than the terrestrial biomes. Apart from animals, plants such as kelp, algae, phytoplankton etc. also grow in water. Aquatic biomes are not only important

Difference between Aquatic and Terrestrial ecosystem

Aquatic Ecosystem	Terrestrial Ecosystem
✓ Aquatic ecosystem exists on water covering 71% of the earth surface.	✓ Terrestrial ecosystem exists on land covering 29% of the earth surface.
✓ Aquatic animals use 20% of energy to obtain oxygen.	✓ Terrestrial animals use only 1-2% of energy to obtain oxygen.
✓ In this ecosystem there is abundant of water with limited oxygen supply.	✓ In this ecosystem there is less availability of water, greater availability of gases and temperature fluctuation.
✓ The small drifting photo synthetic organisms of the ocean called photo phytoplankton are regarded as the major primary producer.	✓ The primary producer is the plant that produce food through photosynthetic process.
✓ Aquatic environment is more stable with smaller fluctuation in temperature and other variable.	✓ Terrestrial environment is quite unstable as the land surface is affected by great risks from external impacts.

for plants and animals, but also for humans. Humans use aquatic biomes for water, food and leisure activities. Some of the threats and issues to aquatic biomes are overfishing, pollution and rise in sea level.



important role in maintaining the flow of energy in the biosphere. At the same time, the primary cause of today's loss of biodiversity is habitat alteration caused by human activities. The ever increasing population results in over exploitation of biological resources. This has an adverse impact on flora and fauna on earth. There are places on earth that are both biologically rich and deeply threatened. Hence it is man's duty to conserve and care for the earth and make it a better place to live in.



- A Biosphere Reserve is a special ecosystem or specialized environment with flora and fauna that require protection and nurturing. There are 18 Biosphere Reserves in India.

3.3 CONSERVATION

The biosphere extends from the deep ocean trenches to lush rain forests. People play an

CASE STUDY-BIOSPHERE II

Scientists have created an artificial Biosphere called Biosphere-2, to understand the Earth which is referred as Biosphere-1.

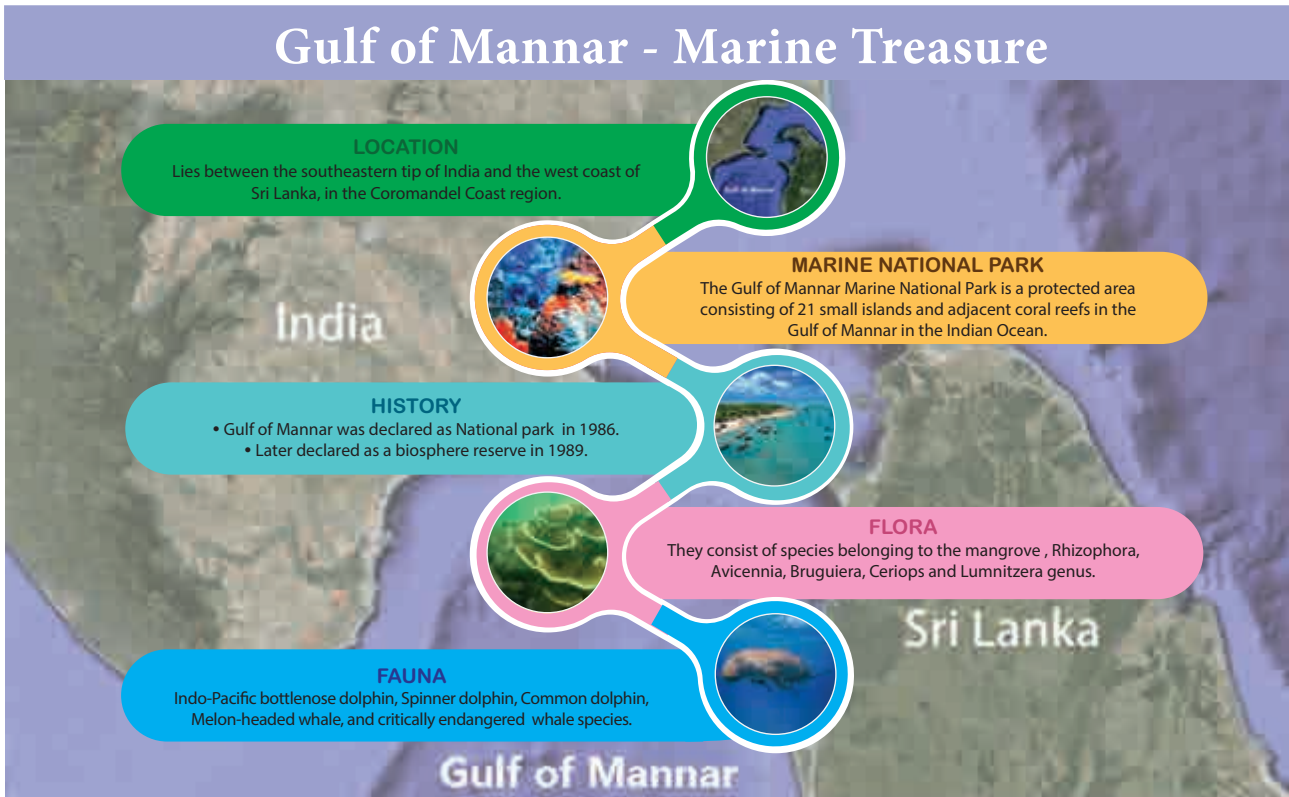
Facts and Numbers

- Biosphere-2 covers 3.15 acres and is located in Arizona, America.
- It is 91 feet at its highest point.
- It is sealed off from earth below by 500 ton welded stainless steel liner.
- A host of instruments constantly monitors the air, soil and water.
- The 25 foot ocean contains a million gallons of salt water.
- Biosphere-2 contains five biomes - a rain forest, desert, savanna, marsh and ocean.
- It has more than three thousand species of living organisms.
- The habitat is opened for public tours.

(To visit biosphere-2 log on to www.biosphere2.org)



Gulf of Mannar - Marine Treasure



Recap

- The biosphere is a thin layer on, above and beneath the earth where life exists.
- The place on earth where living organisms live and interact with one another and with their physical environment is called an ecosystem.
- The three major components of ecosystem are biotic components, abiotic components and energy flow.
- Biotic components are classified into producers, consumers and decomposers.
- The functioning of the ecosystem depends on the energy flow through various levels called trophic levels.
- The wide variety of living organisms that are found on the planet is called biodiversity.
- The extinction of such biological diversity due to human influences or nature is called loss of bio diversity.
- The geographically extensive ecosystem where living organisms are collectively found is termed as biome.

- Biomes are broadly classified as terrestrial and aquatic biomes.
- Biosphere has to be conserved, as it is considered to be an asset to planet earth.

A-Z

Glossary

Environment - everything that around us.

Extinction - the loss of species by human activities or nature

Assemblage - collection or gathering of things or people

Terrestrial Biome - plants, animals and species on land

Lumbering - cutting down of trees into logs

Pastoral - grazing sheep or cattle for food

Estuary - the mouth of a river or stream along the coastline, with less deposits of silt

Limnology - is a study about freshwater ecosystem

Etymology - the study of the sources, development and history of a word.

EXERCISES :

I. Fill In The Blanks

1. An area where animals, plants and micro organisms live and interact with one another is known as.

2. _____ are also called Heterotrophs.
3. _____ is a system of interlocking and independent food chains.
4. _____ is an extensive large ecosystem.
5. The vegetative type commonly found in desert biomes is called. _____
6. _____ is an aquatic biome that is found where fresh water and salt water mix.



II. Choose the correct answer

1. The coldest biome on Earth is
A) Tundra
B) Taiga
C) Desert
D) Oceans
2. This is the smallest unit of biosphere.
A) Ecosystems
B) Biome
C) Environment
D) None of the above
3. Nutrients are recycled in the atmosphere with the help of certain micro organisms, referred to as
A) Producers
B) Decomposers
C) Consumers
D) None of the above
4. To which climatic conditions are Xerophytic plants specifically adapted to?
A) Saline and sandy
B) Limited moisture availability
C) Cold temperature
D) Humid

5. Why is the usage of rainforest biomes for large scale agriculture unsustainable?
A) because it is too wet.
B) because the temperature is too warm.
C) because the soil is too thin.
D) because the soil is poor.

Questions 6 – 8 are assertion type questions.

Directions:

- a) Both assertion (A) and reason(R) are true; R explains A
 - b) Both assertion(A) and reason(R) are true; R does not explain A
 - c) A is true; R is false
 - d) Both A and R are false
6. A: Heterotrophs do not produce their own food.
R: They depend on autotrophs for their nourishment.
 7. A: Hotspots are the regions characterised by numerous endemic plants and animal species living in a vulnerable environment.
R: To manage and focus on conservation work more effectively, researchers identified hotspots.
 8. A: The number of gorillas in Africa has plummeted by 60% in the past twenty years.
R: Non intervention of human beings in the forest areas.

III. Answer the following in brief:

1. What is Biosphere?
2. What is an ecosystem?
3. What does the term 'biodiversity' mean?
4. What is meant by loss of biodiversity?
5. Mention the various terrestrial biomes.

IV. Distinguish between the following:

1. Producers and Decomposers.

2. Terrestrial biomes and Aquatic biomes.
3. Tropical vegetation and Desert vegetation
4. Savannas and Tundra

V. Give reasons for the following:

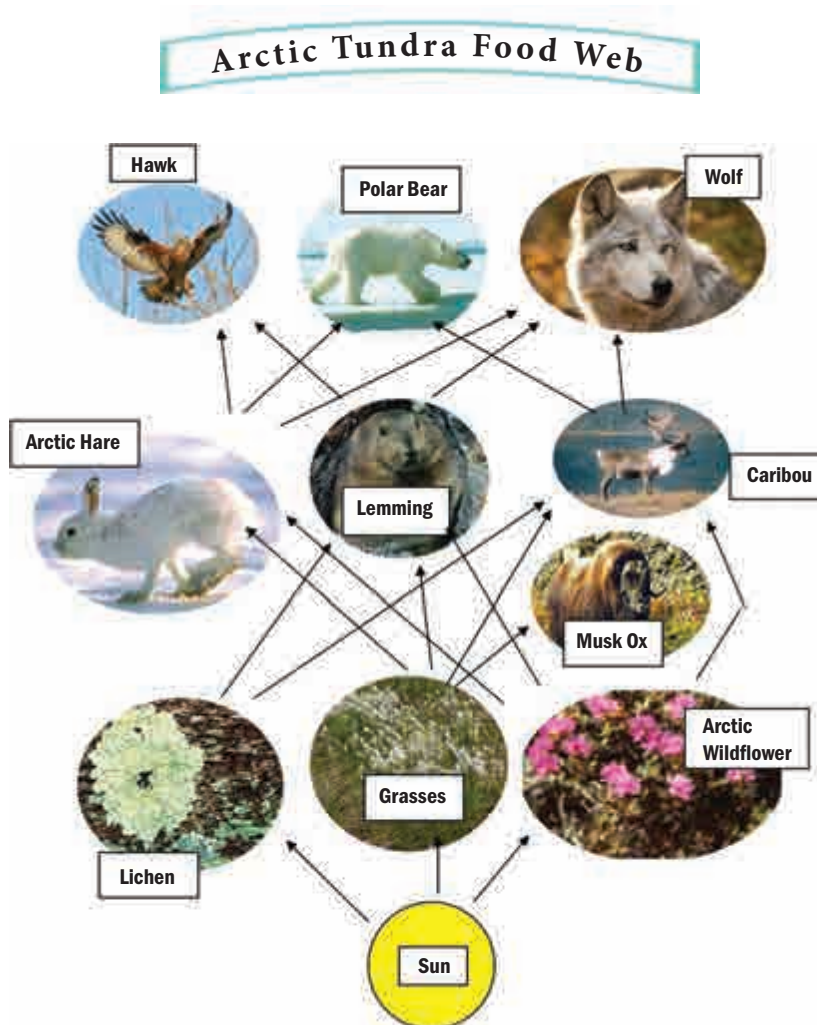
1. Producers are also called autotrophs.
2. Biosphere provides a stable ecosystem.

VI. Answer the following in a paragraph:

1. Explain the various components of ecosystem.
2. Write a paragraph on the functions of an ecosystem.
3. Explain about the aquatic biomes on Earth.

VII. Picture Study

Narrate the given food web of Arctic Tundra in your own words.



VIII. Find out the dates for the following:

- | | | |
|--------------------------------|---|----------|
| 1. World Wild Life Day | - | |
| 2. International Day of Forest | - | |
| 3. World Water Day | - | |
| 4. Earth Day | - | |
| 5. World Environment Day | - | June 5th |
| 6. World Oceans Day | - | |

IX. Map Study

Locate the following on the world outline map.

1. Priairies
2. Downs
3. Tundra Biomes
4. Equatorial Biomes



REFERENCE BOOKS

1. Environmental Geography by Savindra Singh
Edition: 1995, Prayag Pustak Bhawan, Allahabad, India
2. Physical Geography by Dr. Savindra Singh
Edition: 2015, Pravalika Publications, Allahabad, India.
3. Essential Environmental Studies S.P. Misra and S.N.PandeySecond Edition, Ane books Pvt. Ltd., New Delhi, India.
4. Environmental Geography by Dr. Savindra Singh Edition: 2015, Pravalika Publications, Allahabad, India.



INTERNET RESOURCES

1. www.usgs.gov
2. <http://environment.nationalgeographic.com>
3. www.nasa.gov
4. www.britannica.com
5. <http://earth.usc.ed>

கலைச்சொற்கள்

Environment	– சுற்றுச்சூழல்
Extinction	– அழிதல்
Terrestrial Biome	– நிலம்வாழ் பல்லுயிர்த்தொகுதி
Lumbering	– மரம் வெட்டுதல்
Pastoral	– கால்நடைவளர்ப்பு
Estuary	– பொங்குமுகம்
Limnology	– நன்னீர் உயிரியல்
Etymology	– சொல் பிறப்பியல்



ICT CORNER

Geography -Biosphere

Let us know 'Biosphere' with the help of videos



Steps

Step 1: Open the Browser type the URL Link given below (or) Scan the QR Code.

Step 2: Register as a student or teacher with your email id.

Step 3: Select the option Video and see the Biosphere video.

Step 4: Select the option Quiz and choose the correct answer.



Step 1



Step 2



Step 3



Step 4

Website URL :

<https://matchthememory.com/Earthspheres>



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Geography – Class IX

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STANDARD NINE

CIVICS

TERM II

UNIT

1

HUMAN RIGHTS



Learning Objectives

- To know about the international efforts for protecting human rights.
- To understand the basic human rights ensured in the Indian Constitution.
- To understand about the functions of institutions and issues involved in human rights.
- To have a glimpse on the types of human rights



The lesson travels through the history of organisations for human rights. The rights ensured by the Universal Declaration of Human Rights being highlighted. Fundamental rights are enshrined in the Indian Constitution and fundamental duties incorporated in the Constitution along with the introduction to National and State Human Rights Commissions and their functions are explained. Extended rights like child rights, SC and ST rights, women rights, labour rights, etc., are also discussed.

In June 1893, while a person was on his way to Pretoria, a white man objected the person's presence in a first class carriage

and the person was ordered to move to a van compartment at the end of the train. The man who had the first-class ticket refused to leave and was thrown off the train at Pietermaritzburg. Shivering in the winter night in the waiting room of the station changed the course of his life. He took up the fight against racial oppression. The spirit for active non-violence started from that moment.

Can you guess the person? He is none other than Mahatma Gandhi. Gandhi made the momentous decision to stay on in South Africa and fight racial discrimination against the Indians there. Out of that

struggle emerged his unique way of protest nonviolent Satyagraha.

What do you think about this incident?



Gandhi in SouthAfrica



Inscription at the railway station

Do you think Gandhi had the right to travel in first class?

As a human being, Gandhi had all the rights to travel in the first class compartment. But he was discriminated because of his skin colour. Discrimination is not only done based on colour, it is done on the basis of race, gender, place of birth, caste, religion and so on.

Due to these discriminations, people are prohibited from enjoying their basic human rights.

1 What are Human Rights?

The U.N.O defines Human rights as “The right inherent to all human beings, regardless of race, gender, nationality, ethnicity, language, religion or any other status. Every one is entitled to these rights without discrimination.”

The history of human rights has roots in all the great events of the world and it has sustained the struggle for freedom and equality everywhere. The United Nations Organisation (U.N.O) was formed after the Second World War. It proposed to deal with the consequences of war and to prevent such happenings in the future. UNO was established in 1945

The Universal Declaration of Human Rights(UDHR) has played a crucial role in promoting human rights

End of Apartheid



Mandela raises his fist soon after his release from jail after 27 years

Apartheid was the highest form of discrimination that existed in South Africa. Places of residence were determined by racial classification.

It was the governing policy in the country by the minority whites over the majority non-whites. The people of South Africa protested against racial discrimination.

Nelson Mandela raised his voice against apartheid. When he organised defiant campaigns against the government, he was imprisoned. Amid growing domestic and international pressure and with the fear of a racial civil war, President F. W. de Klerk released him in 1990.

The efforts taken by Mandela and de Klerk put an end to apartheid. In 1994, a multiracial general election was held, in which Mandela led the African National Congress to victory and became President.

2 Universal Declaration of Human Rights (UDHR)

The Universal Declaration of Human Rights is a milestone document in the history of human rights. It was drafted by the representatives with different legal and cultural backgrounds from all regions of the world. The Declaration was proclaimed by the United Nations General Assembly in Paris on 10th December 1948 (General Assembly resolution 217A) as a common standard of achievement of all people and all nations. The first time it sets out the fundamental human rights to be universally protected and the UDHR has been translated into many languages.

There are 30 articles in the Universal Declaration of Human Rights and it guarantees freedom of expression as well as civil, political, social, economic and cultural rights. These rights apply to all people, irrespective of their race, gender and nationality, as all people are born free and equal.

This general explanation of Human Rights by UDHR is not a legally binding document; however it has a political and moral importance and many of its guarantees have become standard norms today.

Social, Economic and Cultural Rights:-

Social, economic and cultural rights are integral part of the human rights law that developed due to the aftermath of World War II.

Social rights are necessary for full participation in the society. Economic rights guarantee every person to have conditions under which they are able to meet their needs. They are a part of a range of legal principles through which economic equality and freedom are preserved in a State.

Cultural rights are human rights that aim at assuring the enjoyment of culture and

its components in conditions of equality, human dignity and non-discrimination.

Civil and Political Rights:-

Civil and political rights protect an individual's freedom from infringement by the government, social organizations and private individuals. These rights ensure one's ability to participate in the civil and political life of the society and state.

The term 'Civil rights' refers to the basic rights afforded by laws of the government, to every person regardless of race, nationality, colour, gender, age, religion etc.,

Political rights exercised in the formation and administration of a government. They are given to the citizens by law. These rights give power to the citizens to participate either directly or indirectly in the administration.

3 Fundamental Rights in India

Fundamental rights are required for the all round development of a human being. They make the life of people meaningful by giving them rights like speech and to live in an area of their choice.

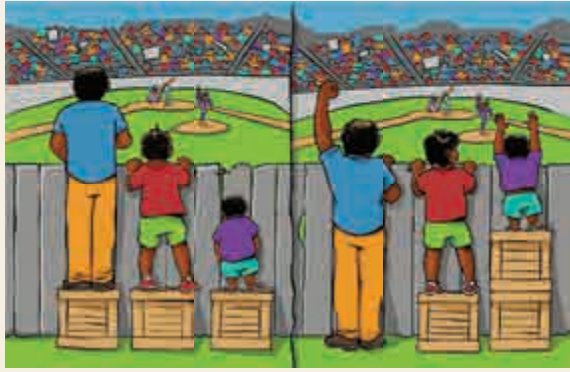
The fundamental rights are :

- Right to Equality
- Right to Freedom
- Right against Exploitation
- Right to Freedom of Conscience and Religion
- Cultural and Educational Rights for minorities
- Right to Constitutional Remedies

Right to Equality

It refers to equality before law and equal protection of law. Prohibition or discrimination on the grounds of religion, caste, races, gender or place of birth is

offensive and one can seek justice from court.



Share your views about this picture

Right to Freedom

Six different types of freedom are mentioned in the Constitution. They are:

- Freedom of speech and expression.
- Freedom to assemble peacefully without arms.
- Freedom to form associations and unions.
- Freedom to reside and settle in any part of India.
- Freedom to move freely throughout the territory of India.
- Freedom to practice any profession and carry on any occupation, trade or business.



Right against Exploitation

It is against the law to employ children below 14 years of age in mines, factories or other occupations. Neither contractor nor an employer can force a worker to do a job against their will.



Right to Freedom of Conscience and Religion

This right gives the citizens freedom to follow and practice a religion of their choice.



All citizens have the freedom of conscience or ideas. The citizens also have the freedom to follow their own ways for practicing any religion.

Cultural and Educational Rights

The Constitution gives us the right to preserve, protect and promote culture. We have the right to open schools, associations and societies to preserve and promote our tradition and culture. Similarly a group of people may open a school for imparting religious education to children. The government also promotes such activities by giving grants. However, such institutions cannot deny admission to anyone based on their caste, colour, creed or even religion.

Differences Between Human Rights and Fundamental Rights

Human Rights	Fundamental Rights
The rights that a human being deserves to survive with respect and freedoms.	The elemental rights of the citizens of a country, which are listed in the constitution and enforceable under the law is known as fundamental rights.
Human rights include those rights which are basic to a real life and are absolute, i.e. it cannot be taken away.	Fundamental rights includes only those rights which are basic to a normal life.
Human rights are recognised at international level.	Fundamental rights are guaranteed under the constitution of the country.

Human rights as declared by the UN, suggest minimum standards of rights to be adopted by Government and these serve more or less like Directive Principles.

WRIT is a written order from the court or other legal authority ordering to do an act or not to do it.

Right to Constitutional Remedies

Fundamental Rights are guaranteed by the Constitution. By this right, a person can adopt Constitutional means and approach a court if he is denied the Fundamental Rights. The court then issues orders which are called 'Writs' to the government to restore the rights to the citizen. The Constitutional Remedies put to right anything which may be wrong in terms of the Constitution. This right therefore protects and safeguards all other rights.

PreethikaYashini won her right of employment by approaching the court according to the Right to Constitutional remedies.

As Yashini takes last step towards her SI dream, it's a giant leap for 3rd gender

A Subramani@tntextbooks.com

Chennai: Having a trail through intense government and judicial processes, gender transgender A. Preethika Yashini has finally reached her dream of becoming the uniformed of a Tamil Nadu police sub-inspector.

The Madras High Court on Thursday declared that she was entitled to be appointed sub-inspector of police. Calling for the creation of a separate category to accommodate transgender in employment, the judge further said: "We are aware that by the time the next recruitment process is carried out, the Tamil Nadu Uniformed Services Recruitment Board (TNSRB) would have taken corrective measures for including the third gender as a category."

Though Tamil Nadu police already has three transgender on their rolls as constables, Yashini will be the first transgender of rank in the force. Corresponding address:



A. Preethika Yashini is the first transgender from Tamil Nadu to be selected for the post of sub-inspector.

Advocate general of Tamil Nadu P. H. Aravind Pandian for his fair stand on the issue and Yashini's counsel, Advocate Subramani, the first bench comprising Chief Justice

Justice Sanjay Kumar Kaul and Justice Pradyumn Kumar Singh hoped that Yashini would carry out the duties of a police officer with "dedication and commitment to advance the cause of other transgenders."

The judges who helped her clear all hurdles on the way said: "The social impact of such recruitment cannot be lost sight of as it would give strength to the cause of transgenders, Yashini must reach the finish line, and not be stopped and disqualified in the middle."

Yashini is a student of P. Pradyumn Kumar and reached a milestone after completing her post graduate diploma in computer application from Bharathiar University. Though she had felt emerging changes in her gut and body even during her school days, Yashini said she could perform computer work as her only other job in a village.

► 'Help me lead a normal life', P. 4

4 Fundamental Duties

These are in the form of duties and responsibilities of citizens. 'The original Constitution which came into force with effect from 26th January, 1950 did not contain Fundamental Duties.

These were incorporated in the Constitution by the 42nd Amendment Act in 1976. The Constitution states eleven Fundamental Duties as given below:

1. Respect for the Constitution and its ideals and institutions, the National Flag and the National Anthem.
2. To follow and cherish the noble ideals which inspired our National Struggle for freedom.
3. To uphold and protect the sovereignty, unity and integrity of India.
4. To defend the country and render national service when called upon to do so.
5. To promote harmony and spirit of common brotherhood amongst all the people of India, transcending religious, linguistic, regional or sectional diversities, to renounce practices derogatory to the dignity of women.

6. To value and preserve the rich heritage of our composite culture.
7. To protect and improve the natural environment including forests, lakes, rivers and wildlife and have compassion on living creatures.
8. To develop the scientific temper, humanism and the spirit of inquiry and reform.
9. To safeguard public property and to abjure from violence.
10. To strive towards excellence in all spheres of individual and collective activity, so that the nation constantly rises to higher levels of endeavour and achievements.
11. To provide opportunities for education by the parent and guardian to their child or ward upto the age of 14 years.

**DO
YOU
KNOW?**

Maintenance and welfare of parents and Senior Citizens Act, 2007 is a legislation passed in 2007 by the Government of India.

This Act is a legal obligation for children and heirs to provide maintenance to senior citizens and parents.



5 National Human Rights Commission



The National Human Rights Commission is an autonomous body constituted on 12th October 1993 under the protection of Human rights Act, 1993. It consists of a chairman and few other members. NHRC is responsible for the protection and promotion of human rights in India defined by the Act as rights relating to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the international covenants.

Functions of NHRC

- To inquire into the violation of human rights or negligence in the prevention of such violation by a public servant
- To intervene in court proceedings relating to human rights
- To undertake and promote research in the field of human rights
- To engage in human rights education among various sections of society
- To encourage the effects of NGOs and institutions working in the field of human rights.

6 State Human Rights Commission (SHRC)



Every state in India has a State Human Rights Commission established in accordance with the power conferred on the state under section 21 of the Protection of Human Rights Act, 1993. The protection

and promotion of human rights constitute the principal concern of the Commission. Moreover, the procedures adopted by the Commission to conduct its proceedings, the suo motu actions taken on complaints regardless of the sources received and the transparency of the proceedings of the SHRC add strength to its functioning in a state.

Functions of SHRC

- The SHRC shall enquire into violation of human rights in respect of matters specified in the state and concurrent lists.
- Its objectives and duties are the same as NHRC, but confined only to the state. It has a chairman and two members.
- It has the power of a civil court and can take cognizance of cases if received or in suo motu.
- It can also recommend compensation to victims.

Child Rights

Apart from the fundamental rights described by the Constitution, we have to ensure certain other rights.

A child is a person who has not completed the age of 18 years i.e. a minor as per UNO. This principle is exhibited in Articles 25 of the Universal Declaration of Human Rights. Based on these principles, the declaration of the Rights of the child was accepted and adopted in the UN General Assembly on 20th November, 1989.

- Right to life
- Right to family environment
- Right to Education
- Right to benefit from Social security
- Right against sexual exploitation
- Right against sale or trafficking

- Right against other forms of exploitation like Child labour.

• Right to life

A child has the right to survive even before its birth. The right to survival also includes the right to be born, the right to basic needs of food, shelter and clothing and a dignified living.

• Right to Family Environment

A child has the right to live a normal childhood in a family environment. Children who have been left destitute, abandoned or orphaned also have the right to live. These children can be given for adoption to caring families.

• Right to benefit from Social security

Children should get financial support from the country when their parents or guardians are unable to provide them with a good standard of living by themselves, due to any illness, disability or old age.

HOTS

Democracy, Development and Fundamental Rights - Can you establish a positive link among these three factors?

• Right to Education

Right to Education Act is an Act of the Parliament of India enacted in 2009 for free and compulsory education for children from 6 to 14 years of age as under Article 21A of the Constitution.

The Right of children To free and compulsory Education (RTE) Act, 2009, means that every child has a right to formal Elementary Education. This right of children provides free and compulsory education till the completion of elementary education in a neighbourhood school. The child need not pay any kind of fee for completing elementary education.

Malala - Nobel Peace prize laureate says

"I loved school. But everything changed when the fundamentalist took control of our town in Swat Valley.



They said girls could no longer go to school. I spoke out publicly on behalf of girls and our right to learn. And this made me a target.

In October 2012, on my way home from school, a masked gunman boarded my school bus and asked, "Who is Malala?" He shot me on the left side of my head. I woke up 10 days later in a hospital in Birmingham, England. After months of surgeries and rehabilitation, I joined my family in our new home in the U.K. I determined to continue my fight until every girl could go to school.

Every day I fight to ensure all girls receive 12 years of free, safe, quality education. With more than 130 million girls out of school today, there is more work to be done. I hope you will join my fight for education and equality. Together, we can create a world where all girls can learn and lead.

If you were Malala, what would you have done?

Is Malala's fight necessary?

Are girl children treated and given education equally?

• Right against sale or trafficking

Children should be treated as individuals with fundamental human rights. Children are vulnerable. There are root causes such as poverty, gender discrimination, broken families etc., behind the sale or trafficking of children.



The Kavalan SOS App is launched by the Government of Tamil Nadu for public use during emergencies. Anyone in a critical situation, not only women, can easily and directly access the State Police Control Room using this App.

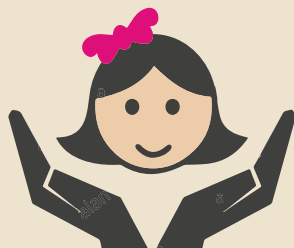
Children are subjected to sale or trafficking for various reasons – economic exploitation, sexual exploitation, sexual abuse, drug trafficking and child labour.

Have you heard about child trafficking? Conduct a debate on this topic in your class

• Right against sexual exploitation

The state should protect children from sexual exploitation and abuse, when they are forced or persuaded to take part in sexual activities physically or mentally.

POCSO Act - Protection of Children from Sexual Offences Act



The Protection of Children from Sexual Offences Act, 2012 regards the best interest of the child as being of paramount importance at every stage.

Salient features of POCSO Act

- The Act defines a child as any person below eighteen years of age, to ensure the healthy, physical, emotional, intellectual and social development of the child.
- When the abuse is committed by a person in a position of trust or authority vis-à-vis the child, like a family member, neighbours or any other acquaintances.
- The statement of the child is to be recorded exactly as the child narrates.
- A child not to be called repeatedly to testify.

An ordinance providing the death penalty for rapists of girls below 12 years of age and other stringent penal provisions for rape has been promulgated in April 2018. The Criminal Law Amendment Ordinance, 2018, amended the Indian Penal Code. Another salient feature of this amendment is that the fine imposed shall be just and reasonable to meet the medical expenses and rehabilitation of the victim.



1098

Childline is India's first 24 hours free emergency phone service for children in need of assistance. Special care is given for vulnerable children like those affected by child labour, child marriage and children affected by any abuse.

• Right against other forms of exploitation like Child labour

Children are often employed in several industries. These children are deprived of their childhood, health and education. This will lead to a life of poverty and want. These children are made to work in glass, match-box, lock-making factories, rag-picking, carpet – making industry, beedi - rolling, mining, stone quarrying, brick kilns and tea gardens etc.

Work is mostly gender – specific, with girls performing more home – based work, while boys are employed as waged labour. Since these children work in agricultural fields, restaurants, motor repair workshops and home – based industries, elimination of child labour remains a challenge.



Kailash Satyarthi is a Nobel Peace Prize recipient and the founder of Bachpan Bachao Andolan, and many other child rights organisations. More than 86,000 children in India have been liberated by him and his team members from child labour, slavery and trafficking. An 80,000 km long Global March against Child Labour was led by Kailash in 1998 which turned the world's attention towards the issue of Child labour.



The findings of an international survey reveals that children with disabilities are 3.4% more sexually abused than normal children.

Child Rights in the Indian Constitution

Article 24 – No child below the age of 14 must be employed in hazardous employment.

Article 45 – Free and compulsory education for all children until they attain the age of 14 years.



Children are the foundation of any nation. When girls get married early, they lose many privileges like childhood happiness, availing education and a healthy life. The society in turn gets affected by child marriage. Thus child marriage should be avoided at any cost.

Women Rights

The National Commission for Women (NCW) is constituted in India to review the Constitutional and legal safeguards for women, recommends remedial measures and advises the government on all matters of policy affecting the welfare and development of women in the country.

In modern India, women have held high offices including that of the President, Prime Minister, Speaker of the Lok Sabha, Leader of the Opposition, Union Ministers, Chief Ministers and Governors.

In Tamil Nadu, ancestral property rights were given to women through Hindu Succession (Tamil Nadu Amendment) Act 1989.

The Central Government amended the Hindu Succession Act in 2005. By this amendment, women are now given equal shares in inheritance of the undivided property.

Women's rights under the Constitution of India mainly include equality, dignity, and freedom from discrimination; additionally, India has various statutes governing the rights of women.

Rosa Parks- a Symbol of Dignity

By refusing to give up her seat to a white man on a Montgomery, Alabama, city bus in 1955, one Rosa Parks (1913—2005)

helped to initiate the civil rights movement in the United States. The leaders of the local Afro-American community organized a bus boycott that began the day (same

Monday, every week) Parks was convicted of violating the segregation laws. Led by a young Rev. Dr.

Martin Luther King Jr., the boycott lasted more than a year—during which Parks not

coincidentally lost her job—and ended only when the U.S. Supreme Court ruled that bus segregation was unconstitutional. Over the next half-century, Parks became a nationally recognized symbol of dignity and strength in the struggle to end entrenched racial segregation.



Women Labourers' Welfare and Ambedkar

Dr B.R. Ambedkar framed many laws for women workers in India such as the 'Mines Maternity Benefit Act', 'Women Labour Welfare Fund', 'Women and Child Labour Protection Act', 'Maternity Benefit for Women Labour', and 'Restoration of Ban on Employment of Women on Underground Work in Coal Mines'.

SC and ST Rights

Inorder to ensure the dignity and security of Adi Dravidars (mostly referred as Scheduled Castes in other States) and remove all forms of exclusion, marginalization, untouchability and discrimination the Government formulate policies, plans, budgets, schemes and programmes for ensuring the right to social equity, access to entitlements and right to dignity. These rights facilitate the betterment of their socio-economic conditions as well as conferring democratic and political rights.

Furthermore, the Scheduled Tribes constitute a total of 8.6 percent of India's population. They continue to practice their native norms and customs and on most occasions remain inaccessible to the rest of the world. This has become an important ground for the preservation of their rights.



Rise of Democracy

Fall of an inhuman wall

Reservations

The state of Tamil Nadu provides 69% of reservation to the Scheduled Classes, Scheduled Tribes, Backward Classes, Most Backward Classes, Most Backward Classes, Denotified communities and Minorities. in employment and educational institutions. Government of Tamil Nadu provides inner reservations for Muslims in BC and for Arunthathiyar in SC category.

The follwing table gives us a very clear picture of the percentage of reservations for various communities by the Government of Tamil Nadu.

Communities	Reservation in (%)
Backward Classes	26.5
Backward Class Muslims	3.5
Most Backward Classes/Denotified Communities	20
Scheduled Castes	18
Scheduled Tribes	3
Total	69

Under each reserved category and in General category 33% is reserved for women and 4% is reserved for differently abled persons. Special reservation offered to Arunthathiyars with in the seats reserved for Scheduled castes. For persons studied in Tamil medium 20% seats are offered under

each category on priority basis.

Right to Information Act (RTI)

The Right to Information Act is a revolutionary act that aims to promote transparency in the government institutions in India. This act was enacted in October 2005.

A common man can demand any government organization to provide information. The information must be provided within thirty days. If not, a fee will be collected as penalty from the concerned official.

It is one of the most powerful laws of the country. This act is people friendly; even an illiterate person can ask any Public Information Officer to write it down for him. All government agencies like Municipal Corporations, Government departments, Government Schools, Road Authorities, etc., come under this Act.

RTI Activists



Aruna Roy

Nikil Dey

Through RTI one can get even copies of government documents such as records, reports, papers, etc., Personal information of individuals and organisations related to the country's defence and intelligence, such as BSF, CRPF, Intelligence Bureau are exempted from the RTI.

- Sign the Application form with your full name and address along with the date and send it through a registered post to the office of the concerned authority.

- If a reply is not received within 30 days, an appeal can be filed with the Appellate Authority.

Labour Rights

The Constitution ensures right to equality, equality of opportunity in public employment, right to form associations and unions, right to livelihood, prohibits trafficking, forced labour and child labour. Article 39(d) ensures equal wages to male and female workers for equal work.

Activity

List out various jobs in the format given below and fill in the amount of wages for male and female employees.

S. No	Job / Occupation	Wages of male employee	Wages of female employee
1.			
2.			
3.			
4.			
5.			



It is a great victory for female workers who stand all the time more or less 12-14 hours per day while they are working in shops and commercial malls in Kerala for decades as Government of Kerala amended the shops and commercial establishment Act in July 2018.

Female workers who are working in shops and commercial malls are not

allowed to sit or even lean on the wall. They were allowed only 5 minutes of break two times a day to take rest.

There was a strong voice against this inhuman practice among women workers for a long time. Considering this, the Government of Kerala has decided to redress by amending the Shops and Commercial Establishment Act in July 2018.

Contribution of Dr.B.R. Ambedkar



Dr.B.R. Ambedkar's contribution to labourers.

- Reduction in Factory Working Hours (8 hours a day)
- Compulsory Recognition of Trade Unions
- Employment Exchange in India
- Employees State Insurance (ESI)
- Minimum Wages
- Coal and Mica Mines Provident Fund

“The rights of every man are diminished when the rights of one man are threatened” said John F. Kennedy. Civilized nations of the world insist on equality. Nations pay more attention on human rights to ensure equality. This helps in maintaining peace, harmony and development of the country.

Recap

- Discrimination is the partial treatment of people.
- UNO's definition of human rights.
- History of human rights has its roots from the aftermath of second world war.
- Universal Declaration of Human Rights.
- Indian Constitution ensures six fundamental rights and eleven duties of a citizen.
- Formation and functions of National and State Human Rights Commissions.
- Extended rights such as child rights, SC and ST rights, women rights, Right to Information Act (RTI) and labor laws.

A-Z GLOSSARY

Fundamental - basic

Racial - related to a race of people

Ethnicity - belonging to a particular social group

Remedy - Solution to an issue /problem

Intervene - get involved

Compensation - amount awarded to someone for injury or loss

Victim - a person who gets harmed

Abandoned - left

Trafficking - carry forcefully from a place to another.

Exercises:

I Choose the correct answer



- Apartheid' was followed by _____
a) South Sudan b) South Africa
c) Nigeria d) Egypt
- _____ right exercises in the formation and administration of a government.
a) Social b) Economic
c) Political d) Cultural
- A 10 year old boy is working in a shop. Which right can you use to recover him?
a) Right to equality
b) Right to freedom
c) Right against exploitation
d) Right to freedom of Religion
- Which one of the following rights has increased the influence of the people over bureaucracy?
a) Right to equality
b) Right to information
c) Right to education
d) Right to freedom
- What is the time limit to get the information from RTI Act 2005?
a) 20 days b) 25 days
c) 30 days d) 35 days
- _____ right was removed from the fundamental Rights by the 44th Amendment.
a) Right to own (or) sell property
b) Right to freedom of religion
c) Child labour and right against exploitation
d) None of the above
- Which of the following statements are true?

- The state Human Rights commission was established in 1993.
- It has the power of a civil court.
- Its power extend beyond the state.
- It can also recommend compensation to victims.

- i and ii are true
- i and iii are true
- i, ii and iii are true
- i, ii and iv are true

- Consider the following statements.

Assertions (A): Rights and duties are the two sides of the same coin.

Reason (R): We have a right to freedom of religions. We have to promote harmony and the spirit of the people of other religions.

- both A and R are correct and R explains A
- both A and R are correct but R does not explain A
- A is correct but R is false
- A is false but R is correct

- According to the UNO a child is a person who has not completed the age of _____ years.
a) 12 b) 14 c) 16 d) 18

- Kailash Satyarthi and Malala have been awarded Nobel Prize for _____.
a) Literature b) Peace
c) Physics d) Economics

II Fill in the blanks

- The Universal Declaration of Human Rights (UDHR) was adopted on _____.
- The Universal Declaration of Human Rights Contains _____ articles.
- The fundamental Duties were incorporated in the Constitution by _____ Amendment Act.
- The National Human Rights commission was established on _____.

5. _____ Act came into effect on 1st April 2010.
6. Indian state to implement women ancestral property Act in 1989 was _____.
7. The Civil Rights movement in the United State was initiated by _____.

III Match the following

1	Right to Vote	Cultural Rights
2	Right to form union	Right against exploitation
3	Right to preserve tradition	Political Rights
4	The Hindu Succession Act	Right to freedom
5	Child labour	2005

IV Give short answers

1. What is Human Right?
2. What are the fundamental rights?
3. What are the Child Rights define by the UNO?

4. Write a short note on the Right to Constitutional Remedies.
5. Define: POCSO
6. Why do children need special attention?
7. What are the contributions to labourers by B.R. Ambetkar?
8. 'All are equal before law'. But we have enacted a separate law for women – Justify
9. Write any two points on the contribution of Dr. B.R. Ambedkar to labourers.
10. Differentiate: Fundamental Rights and Human Rights.

V Answer in detail

1. Write a paragraph about UDHR.
2. What are fundamental duties? How would you follow these in your school premises?
3. How does the National Human Rights Commission protect our rights?
4. What are the benefits for workers provided by labour law?
5. How do you enjoy the fundamental rights in your life?

VII Life Skill

Sl. No.	Pictures / Statement	The right Violated	Remedial Action
1	 Seeing a kid serving in a restaurant		
2	 An abandoned old man		
3	 School denying admission		
4	 Difference in wages		

A-Z கலைச்சொற்கள்

1. Fundamental	- அடிப்படை
2. Racial	- இன
3. Ethnicity	- இனக்குழு
4. Remedies	- தீர்வுகள்
5. Intervene	- தலையீடு
6. Compensation	- இழப்பீடு
7. Victim	- பாதிக்கப்பட்ட
8. Abandoned	- கைவிடப்பட்ட
9. Trafficking	- கடத்தல்

VI Project and Activity

1. How do you protect yourself from child abuse / sexual exploitation and trafficking.
2. Write an article titled “My country, My Rights”.



ICT CORNER

HUMAN RIGHTS

Let us learn about the Universal declaration of Human Rights.



- Step - 1 Type the URL or scan the QR code to open the activity page.
- Step - 2 Show list of treaties using a menu button at the top-left on the map to turn On/off some type of treaty.
- Step - 3 Click on the map, a window will appear on the left side.



Step 1



Step 2



Step 3

Website URL :

<https://study.com/academy/lesson/biosphere-definition-lesson-quiz.html>

*Pictures are indicative only



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STANDARD NINE

ECONOMICS

TERM II

UNIT

1

MONEY AND CREDIT



Learning Objectives

- To know about the Barter system.
- To understand about money and various transaction of money
- To know about the role of RBI
- To understand about the various types of credits and beneficiaries



This chapter deals with the evolution of money over the years and its functions. It also elucidates on the role of the Reserve Bank of India. It throws light on Foreign Exchange, monetary aggregates and forms of credit. It further explains how technological advancements have made banking easy and swift in today's world.

'பொருளல்லவரைப் பொருளாகச் செய்யும்
பொருளல்லது இல்லை பொருள்'

(Money adds value to people)

Almost all things used by man have a monetary value. In addition to that, the pay given for labour, wages and services are all fixed on the basis of money. The taxes and duties are also paid in the form of money. We would have seen our parents planning the expenses at our home every month. The monthly income, pending expenditure, savings, payment of interest etc., are all measured in terms of money.

'ஆகாறு அளவிட்டி தாயினும் கேடில்லை
போகாறு அகலாக் கடை'

(Expenditure should not exceed income says Thiruvalluvar)

Not only at homes, but also the budgets of a country or states are also framed on the basis of money. The Government, as well as, private institutions and industries calculate their financial status through money. Thus, money plays a predominant and inseparable role in all our lives.

Barter System

If there arises a question, “Has man always used money?”, the answer would be ‘no’. How? when did money enter into the lives of men? In this lesson, let us learn about the evolution of money over the years.

Ancient man hunted and gathered food. He lived in caves and forests. In later stages, he invented weapons for hunting and gathering food. Later, he invented fire and learnt to practise agriculture. He used mud to build houses and settle down in a place. and also to make earthenware.

When the agricultural yield was high, they made handicrafts. When there was surplus in agricultural produce and other articles like earthenware, they exchanged it with people who needed them. For example, if a community had excess food stuff, they would exchange that with those who had excess pots. Likewise, when a particular grain grew in abundance in a region, it was exchanged for a different crop in another region. These articles which were exchanged through barter system can be termed as the first form of trade.

Coins

The barter system flourished wherever civilizations thrived. This system was active not only within a civilization, but also among civilizations. This was the initial form of international trade.

During archaeological excavations in Egypt and Iraq (Mesopotamia), articles used during the Indus valley civilization were excavated.

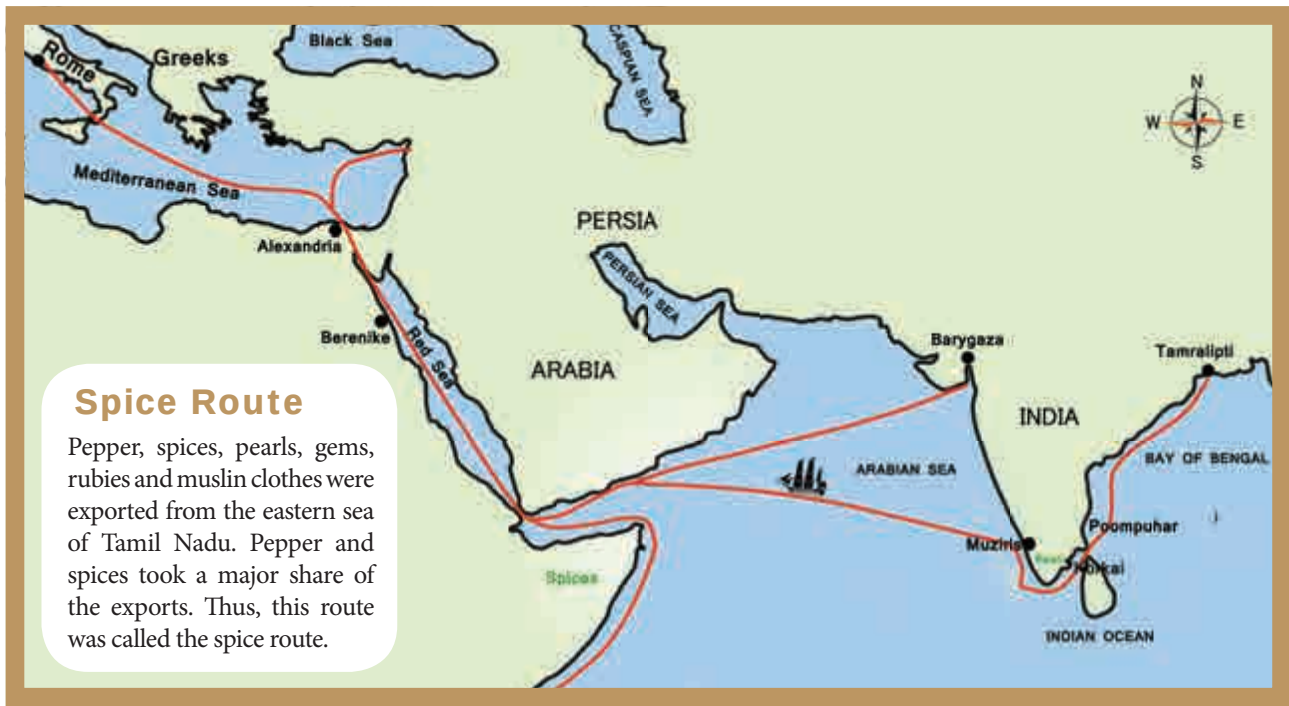


As years went by, there were issues found in barter system. For example there were problems in the exchanging needed goods. A person who had paddy was in need of earthenware for instance. But, the person who had pots and other utensils was not in need of paddy. Thus, the needs of many people were not fulfilled. Measuring the quantity and value of the goods exchanged were found very difficult.

To solve these issues, they fixed a common item with a standard value, for the effective exchange of goods. It was usually in the form of some metal. Metals were rare to find and could be maintained for a long time and never lost their value. Hence, the metals can be termed as the first form of money.



During his rule(1540-1546) Sher Shah Suri set up a new civic and military administration and issued a coin of silver weighing 178 grams, which was termed the Rupiya. The silver coin remained in use during the Mughal period, the Maratha era and in British India as well.



These may be the reasons why metals were chosen. Gold, silver and copper were the metals used first. They were called ancient currency. Leather, beads, shells, tobacco, salt, corn and even slaves were exchanged as barter, says economists.

The later Cholas allowed the traders to have their own army. Historical evidences state that during this period, small traders and producers gave credit to the Tamil traders to support their export needs.



Natural Money

The metals such as silver and gold gained importance gradually all over the world. So, these metals were used as standard value in the exchange of goods. This was called as natural money.

Paper Money

As days went by, issues arose because while trade prospered, there were insufficient reserves of gold and silver. Mines also had a limited reserve of these metals. An alternative was found and coins were made using metals with lesser value. These were used to buy and sell goods of lesser value. It was used as the money of the poor people.

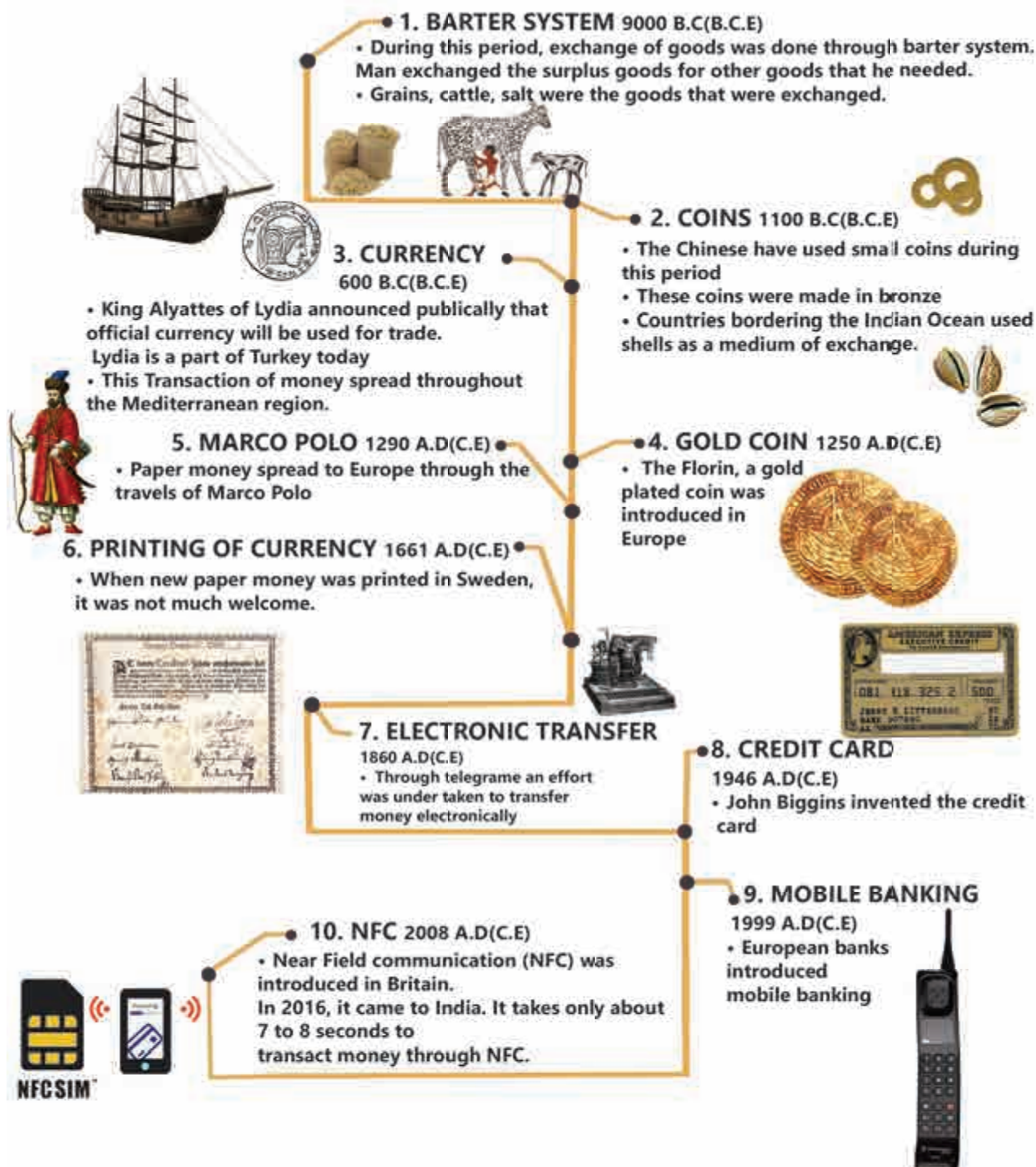
Hence these coins were printed in large numbers. Paper money came into being as the next stage. This money was without form and people started saving in banks. The Great Economic Depression was also prompted the saving habit of the people.

சலத்தால் பொருள்செய்தே மார்த்தல் பசுமட்க
லத்துள்நீர் பெய்திரீஇ யற்று

“The wealth stored through immoral ways will disappear as water kept in an unburnt pot”

Money has become an inseparable part of everyone's life today. It has changed its form in the economic front. Money transactions are done through many ways in the electronic world

HISTORY OF MONEY





Electronic Transactions

One has to visit the bank and fill in a challan or produce a cheque to withdraw money from his account.



Now this practice is gradually vanishing. Instead, one can easily withdraw the necessary amount from an Automated Teller Machine (ATM), with the help of an ATM debit card. One can easily withdraw the money needed at any time at ATMs located everywhere. A person can deposit money in their account without visiting the branch.

- Similarly, credit cards are also available, through which things are bought on credit and the amount can be paid later.



Money, i.e. paper currency is a value. Money is recognized as a standard record for the payment of a thing or service. Using this currency, people can purchase things, pay taxes and repay debts. In the currency of India, I promise to pay the bearer the sum of rupees is printed as the assurance given by the governor of the Reserve Bank of India, with his signature. Similarly, the signature and the promise given by the highest official are found in currencies of all countries.

- Nowadays, instead of using cheques or Demand Drafts (DDs), online transactions through net banking are carried out. Through this, money is transacted to anyone who lives anywhere across the globe.
- Technology has advanced so much that even mobile banking is widely used nowadays.

Role of the Reserve Bank of India

A government has the responsibility to regulate money supply and oversee the monetary policy. Hoarding of money must be avoided at all costs in a country's economy. Only then money can be saved in banks.

A major portion of the savings in banks are used for the development of industries, economic growth and various development schemes for the welfare of the poor.



Dr. B.R. Ambedkar's Ph.D. thesis on 'The Problem of the Rupee - Its origin and solution' was the reference tool and provided guidelines for the Reserve Bank of India Act of 1934.

All the major and important banks were nationalised (1969) in India. The Reserve Bank of India (RBI) regulates the circulation of currency in India.

The Reserve Bank of India started its operations on 1st April 1935. It was permanently moved to Mumbai from the year 1937. RBI was nationalised in 1949. 85% of the printed currency is let

for circulation. According to the statistics available as on August 2018, currency worth of 19 lakh crore are in circulation.

(source - Reserve Bank of India)



Educational Loans

- Educational loan attempts to meet the educational aspirations of the society.
- A student is the main borrower.
- A parent, spouse or sibling can be the co-applicant.
- It is offered to students who want to pursue higher education in India or overseas.
- It can be taken for a full time, part – time or vocational course and Graduation or Post Graduation.
- There is no security required for the loan amount up to ₹ 4 lakhs
- The loan is repaid by the student generally after the employment.
- Students can apply through “Vidya Lakshmi Portal Education Loan Scheme”. (<https://www.vidyalakshmi.co.in/>)

Relationship between Money and Prices

There is a close relationship between volume of circulation money and the price of things. 90% of the products are manufactured with the main aim of sales or meant for services. Growing crops and production are done on a commercial basis, rather than on a subsistence level. This phenomenon also increased the importance of the market and money.

The relationship between money and price is connected with the Monetary policy.

There is a close relationship between the growth of money supply and inflation. Price controls play a very important role in a country's economic stability. This role is played by the Central Bank of our country, RBI in India.

Currency is the medium of exchange in a country. The Indian currency is called the Indian Rupee (INR). In a country the foreign currency is called foreign exchange.

purchasing capacity of all currencies in the world are compared using the US dollar as the standard currency. This value differs from country to country. Most of the international trade transactions are carried out in US dollar.

Activity

Bank

- Set up your classroom like a bank.
- With the help of your teacher, act as a Cashier, Branch Manager, Assistant Manager, customers etc.
- Prepare dummy challans for deposition of money, cheques, Demand Draft etc.
- Do the banking activities

How is currency printed in India?

One rupee and two rupee notes were first printed in India in the year 1917. The Reserve Bank of India is empowered to issue the Government of India notes since 1935. 500 rupee note currency was introduced later. In 1940, one Rupee notes were issued again. Till 1947, the currency notes with the image of King George VI were in circulation. After Independence, the Government of India issued currency notes.

In 1925, the British government established a government press at Nasik in Maharashtra. Currencies were printed three years later. In 1974, a press was started in Dewas, Madhya Pradesh. (Security Printing and Minting Corporation of India Ltd.) In the 1990s, two more presses were started in Mysuru, Karnataka and Salboni in West Bengal to print bank notes.

The Reserve Bank of India has the authority to decide the value of currency to be printed and how the amount should reach its destination safely. Around ten thousand workers are employed here. Countries like Sri Lanka, Bhutan, Iraq and Africa have drawn contracts for printing their currencies and sent to the respective countries.

Though the RBI has the power to print up to ten thousand rupee notes, at present a maximum of upto rupees two thousand is printed.

Foreign exchange rate equivalent to US Dollars		
Country	Currency	Equivalent Value for 1 US Dollar (July 2018)
India	Rupee	68.72 rupees
England	Pound	0.76 pound
European Union	Euro	1.14 euro
Canada	Dollar	1.31 dollar
Japan	Yen	111.15 yen
China	Yuan	6.76 yuan
Saudi Arabia	Riyal	3.75 riyal
Australia	Dollar	1.35 dollar
Malaysia	Ringgit	4.05 ringgit
Pakistan	Rupee	124.2 rupees
SriLanka	Rupee	159.8 rupees



Functions of Money

When money replaced the barter system, a lot of practical issues were solved. Money acts a medium of exchange, a unit of measurement, a store of value and a standard of deferred payments. It plays an important role in transactions.

Activity

Foreign Exchange

Let the teacher bring copies of Indian rupees and foreign currencies. Distribute the foreign currencies to pairs / groups. Let the students convert it into Indian rupees and collect the equivalent amount of rupees from the teacher. When all groups complete, the foreign currency can be given to another group in the next round.

Medium of Exchange

Money should be accepted liberally in exchange of goods and services in a country.

Unit of Account

Money should be the common, standard unit of calculating a country's total consumer goods, products, services etc. For example, if a book costs ₹ 50, it means that the price of the book is equal to 50 units of money. Money is used to measure and record financial transactions in a country.

A Store of Value

Money is used as a store of purchasing power. It can be used to finance future payments.

HOTS

How important is foreign exchange to one's country?

Credit

Farmers avail credit during monsoons for buying seeds, agricultural input and other expenses. Traders and small entrepreneurs need credit for their needs. Even large industries receive credit to take up their new projects.

Credit is available from:

- Formal financial institutions like nationalised and private banks and co-operative banks
- Informal financial institutions
- Micro credit is received through Self Help Groups (SHG)

As far as nationalised banks and co-operative banks are concerned the interest to credit is comparatively lesser and there is guarantee for the pledged, goods.

**DO
YOU
KNOW?**

Money supply is divided into four:

M_1 = Currency held with the public + cash Reserves in commercial and Co-operative banks + cash reserves in the RBI.

M_2 = M_1 + Money saved in Post office and bank savings Accounts

M_3 = M_1 + Time Deposits in Commercial and co-operative banks

M_4 = M_3 + Post office savings Money

Informal Financial Institutions

Informal financial institutions are easily approachable to the customers with flexible procedures. But there are issues like the safety of items pledged high rates of interest and modes of recovery.

People who live in a particular place or those who are involved in a certain work join together as a group and start saving. These are called as Self Help Groups. The nationalised banks provide help to these groups through micro-credit. . Credit given through Self Help Groups for street vendors, fishermen,



especially women and the poor really make a difference in their life.

In Tamil Nadu, all the banks have 10,612 branches across the state. They carry on a total transaction of around 15 lakh crore rupees during the financial year (2017-2018).

A few salient features of the Tamil Nadu Bank transactions are given in the table below.

Tamil Nadu - Banking Statistics

Banking Activities (April 2017- March 2018)	Rupees (approximately)
Deposits Received	7.17 lakh crore
Loans sanctioned	7.84 lakh crore
Loans to Micro & Small enterprises	1.40 lakh crore
Priority Sector Loans including Agriculture	3.56 lakh crore
Loans to weaker section	1.04 lakh crore
Education Loan	1.67 lakh crore
Credit Deposit Ratio	109.34%

Source - Report of 154th state level Bankers Committee Meeting - 2018

Glossary

1. Monetary - relating to money or currency
2. Thrive - flourish or grow vigorously
3. transaction - buying or selling something
4. commercial - buying and selling on a large scale
5. subsistence - self sufficient
6. reserve - retain for future use
7. standard - something used as a measure
8. deferred - put off to a later time; postpone
9. entrepreneur - a person who sets up a business
10. micro credit - lending small amounts of money at low interest to new businesses
11. pledged - give as security on a loan

Recap

- Barter system flourished where civilizations thrived.
- Gold, silver and copper were called ancient money.
- Pepper and spices took a major share of exports.
- Paper money was introduced because metal supply was limited.
- ATMs help a person to withdraw money at any time of the day.
- Mobile banking is widely used nowadays.

- A government has the responsibility to regulate the money supply and oversee circulation.
- All the major and important banks are nationalised in India.
- The Reserve Bank of India started its operations on 1st April 1935. It was permanently moved to Mumbai from the year 1937.
- There is a close relationship between money and price.
- Currency is the medium of exchange in a country.
- Money acts as a medium of exchange, a store of value and a unit of account.
- Credit is given by banks and other institutions to people to fulfil their financial needs.

Exercises

I Choose the correct answer

1. Certain metals like _____ (gold / iron) were used as a medium of exchange in ancient times.
2. The Head Quarters of the RBI is at _____ (Chennai / Mumbai).
3. International trade is carried on in terms of _____ (US Dollars / Pounds).
4. The currency of Japan is _____ (Yen/ Yuan)

II Fill in the blanks

1. _____ System can be considered as the first form of trade.
2. Money supply is divided into _____.
3. The first printing press of the RBI was started at _____.



4. _____ act as a regulator of the circulation of money.
5. The thesis about money by B.R. Ambedkar is _____.

- i) 1 is correct; 2 is wrong
- ii) Both 1 and 2 are correct
- iii) Both 1 and 2 are wrong
- iv) 1 is wrong; 2 is correct

III Match the following

- 1 US Dollar - Automatic Teller Machine
- 2 Currency in circulation - Substitute of money
- 3 ATM - Universally accepted currency
- 4 Salt - Saudi Arabia
- 5 Riyal - 85%

IV Give short answers

1. Why was money invented?
2. What is ancient money?
3. What were the items used as barter during olden days?
4. What is spice route? Why was it called so?
5. What is natural money?
6. Why were coins of low value printed in large quantities?
7. What is meant by foreign exchange?

V Answer in detail

1. Explain how money is transacted in the digital world.
2. Explain in detail about the role of RBI in the country.
3. Write in detail about the various functions of money.
4. What are the divisions of money supply?

VI Write the correct statement.

1. The barter system flourished wherever civilizations thrived.
2. This was the initial form of trade.

1. Most of the international trade transactions are carried out in US dollars.
2. No other country except the US carries out trade in the world.
 - i) Both the statements are correct.
 - ii) Both the statements are wrong.
 - iii) 1 is correct; 2 is wrong
 - iv) 1 is wrong; 2 is correct

VII Project and activity

1. Visit a local museum and collect information about the coins displayed there.
2. Imagine you are going abroad for a Post Graduation course in architecture. Write a letter to the Branch Manager regarding an education loan.

VIII Life skills

1. Observe at a 20 rupee note. What is written on it?
2. Prepare a family budget for a month.

GLOSSARY

History

infidel
aqueduct
heathen
ecclesiastical
illustrious
oligarchy
ill-afford
antagonize
empirical knowledge
bureaucracy
dynamism
chronically
enslaved
impoverishment
martyrdom
de-facto
embassy
incursions
intrusion
mercenary
onslaught
disgusted
observances
pillage
saddle
stirrup
realm
retainers
turmoil
repulse
interdict
sacraments
watershed
awe-inspiring
bastion
genealogy
aesthetic value
assimilate
commentaries
alienate
concomitant
agglomeration
embellish
genocide
feudalism

- மத நம்பிக்கையற்ற
- வாய்க்கால்
- கிறித்தவரல்லாதவர்
- திருச்சபை சார்ந்த
- ஒப்பற்ற
- செல்வர்களின் குழுஆட்சி
- முடியாத
- பகைத்துக்கொள்
- சான்றுகள் அடிப்படையில் பெற்ற தரவுகள்
- அரசு அதிகாரவர்க்கம்
- செயலாற்றல்
- தொடர்ந்து இருக்கிற
- அடிமைப் படுத்தப்படல்
- ஏழ்மையாக்கு
- கொள்கைக்காக உயிர்த் தியாகம் செய்தல்
- உண்மையான
- நாட்டுத் தூதுவரின் அலுவலகம்
- திடீர் தாக்குதல் (அ) திடீர் படையெடுப்பு
- தலையீடு
- கூலிப்படை
- கடுந் தாக்குதல்
- வெறுப்படைதல்
- கடைபிடிக்கப்படுபவை
- கொள்ளையடி
- சேணம்
- குதிரையோட்டி காலை வைத்தற்குரிய வளையம்
- அதிகார எல்லை
- அடியாட்கள்
- குழப்பம்
- விரட்டியடி
- சமயச் சடங்குகளைத் தடை செய்
- கிறித்தவ மதச் சடங்குகள்
- சிறப்புமிக்க
- மலைப்புத் தருகிற
- அரண்
- பரம்பரை வரலாறு: வம்சாவளி
- அழகியல் தன்மை
- உள்வாங்கு
- விளக்கவுரை
- அந்நியப்படுத்து
- தொடர்ந்து வரக்கூடிய
- கூட்டமைப்பு
- மெருகூட்டு
- இனப் படுகொலை
- நிலப்பிரபுத்துவம்



purgatory
indulgence
inquisitive
epidemic
annihilation
vernacular languages
excommunication

- பாவம் போக்கப்படும் இடம்
- பாவமன்னிப்பு
- அறியும் ஆர்வமுள்ள
- தொற்று நோய்
- அழித்தொழித்தல்
- தேச மொழிகள்
- மதநீக்கம்

Geography

Ocean Floor
Gradiant
Trench
Seamounts
Guyots
Atoll
Ridge
Inherent energy
Environment
Extinction
Terrestrial Biome
Lumbering
Pastoral
Estuary
Limnology
Etymology

- கடல் தரைப்பரப்பு
- சாய்வு
- அகழி.
- கடல் குன்றுகள்
- ஆழ்கடல் மட்டக்குன்றுகள்
- வட்டப்பவளப்பாறை
- கடலடி மலைத்தொடர்
- உள்ளார்ந்த ஆற்றல்
- சுற்றுச்சூழல்
- அழிதல்
- நிலம்வாழ் பல்லுயிர்த்தொகுதி
- மரம் வெட்டுதல்
- கால்நடைவளர்ப்பு
- பொங்குமுகம்
- நன்னீர் உயிரியல்
- சொல் பிறப்பியல்

Civics

Fundamental
Racial
Ethnicity
Remedies
Intervene
Compensation
Victim
Abandoned
Trafficking

- அடிப்படை
- இன
- இனக்குழு
- தீர்வுகள்
- தலையீடு
- இழப்பீடு
- பாதிக்கப்பட்ட
- கைவிடப்பட்ட
- கடத்தல்

Economics

Foreign Exchange
Export
Money Exchange
Natural Money
Electronic Transfer
Fixed Deposit
Organisations

- அந்நிய செலாவணி
- ஏற்றுமதி
- பணப்பரிமாற்றம்
- புராதனப் பணம்
- மின்னணு பரிமாற்றம்
- வைப்புத் தொகை
- நிறுவனங்கள்

Economics – Class IX

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