

KT 631-1/Soc. Science 6 (E) Vol-2

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THE NATIONAL ANTHEM

Jana-gana-mana-adhinayaka, jaya he Bharata-bhagya-vidhata. Punjab-Sindh-Gujarat-Maratha Dravida-Utkala-Banga Vindhya-Himachala-Yamuna-Ganga Uchchala-Jaladhi-taranga. Tava shubha name jage, Tava shubha name jage, Gahe tava jaya gatha, Jana-gana-mangala-dayaka jaya he Bharata-bhagya-vidhata. Jaya he, jaya he, jaya he, Jaya jaya jaya, jaya he!

PLEDGE

India is my country. All Indians are my brothers and sisters. I love my country, and I am proud of its rich and varied heritage. I shall always strive to be worthy of it.

I shall give my parents, teachers and all elders respect, and treat everyone with courtesy.

To my country and my people, I pledge my devotion. In their well-being and prosperity alone lies my happiness.

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Dear Students,

Social Science is a window to the world. It leads you towards immense possibilities in knowledge that inform and fascinate. Golden moments in history are preserved here as travelogues, tokens of the past, eternal symbols of our nation's culture, stories narrated by the land, soil, rain and man, economic activities and constitutional rights. Social Science presents such a world of diverse hues. It will guide you to imbibe history, love nature, understand diversities, and to become responsible citizens. May the discussions, debates, enquiries, and analyses make your classrooms lively.

տընեղությունըներությո

With warm regards,

Dr. J.PRASAD Director SCERT

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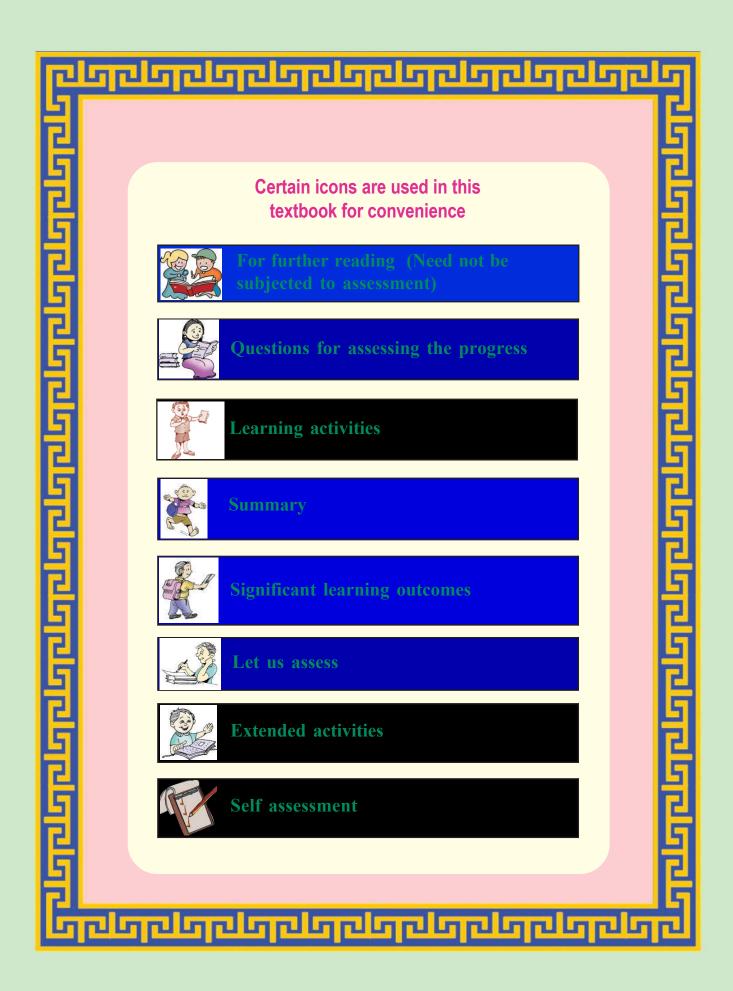
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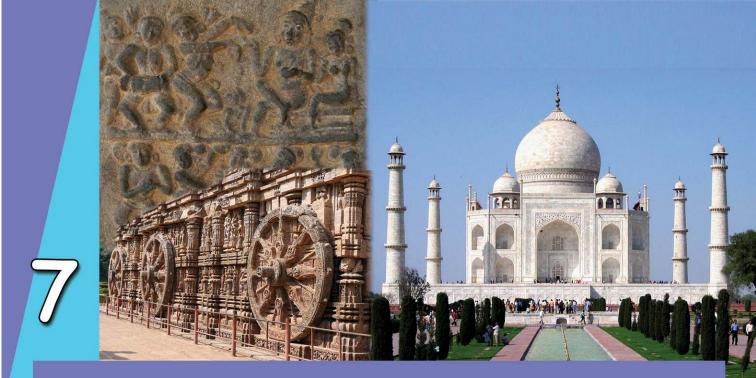
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Medieval India: Art and Literature



The foundation stone for the world famous Sun Temple on the banks of the river Chandrabhaga was laid in AD 1246. Different kinds of stones were brought from distant mountains. White, black and blue stones were brought from the Nilgiris and distant Kingdoms... Stones 25 feet high and weighing 56000 maunds, intended for the temple dome were transported from over 100 miles through water ways and were installed at the top of the temple at a height of 200 feet... 1200 sculptors gave up their comforts and desires and took a vow: "We will not go back till the dome of konark is fixed" They worked tirelessly for 12 years. The description given above is an extract from the novel *Shilapadmam*, written by Pratibha Ray, the famous Odiya novelist.

What information can you gather from it?

Stones of different colours were brought from different parts of India for the construction of the temple.

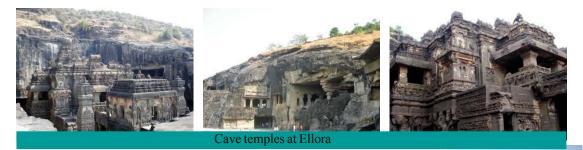
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Besides the temple at Konark, several other structures were constructed in medieval India. Shall we take a look at these structures and their features?

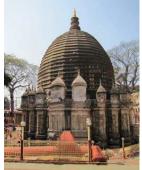
The Pallavas were the rulers based at Kanchipuram in South India. Mahabalipuram was their major port city. The temples constructed in Mahabalipuram during the reign of the Pallava king Narasimhavarman, are known as *Pancharathas*.



Each temple here is carved out of a single rock. Such rock cut temples were built in several parts of India. The cave temples at Ellora in Maharashtra were built in this style. They were built during the period between 6th and the 12th century CE. The temples of Buddhists, Jains, Vaishnavites, and Shaivites can be found here.



In the period that followed, a new style of temple architecture came into being. In this style, tall temples were constructed using chiselled rocks. Most of these temples were multi-storeyed. The Brihadiswara Temple in Tanjavoor, constructed during the reign of Rajaraja Chola and the Kamakhya Temple in Assam epitomise this style.



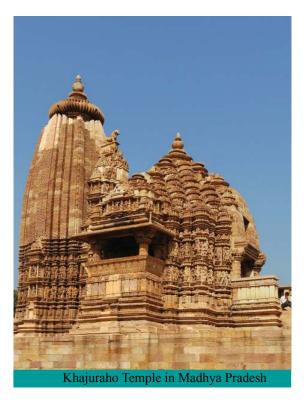
Kamakhya Temple in Assam



Later, the style of adorning temple walls with sculptures became prevalent.

Excerpts from the Ramayana, the Mahabharata, and the Bhagavata were carved on the stone walls of the temples. In addition, the sculptures depicting scenes of war and art forms like dance and musical concerts also found a place on temple walls.





The Khajuraho Temple in Madhya Pradesh is an example of the style of adorning temple walls with sculptures.



The contemporary style of temple architecture in India has developed through different stages. Substantiate. A new style of architecture developed during the Sultanate period. It is known as the Indo-Islamic style of architecture.

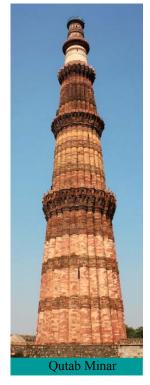


Skilled architects from Turkey and Persia were brought to India for the construction of different structers. The indigenous sculptors, labourers, and masons also joined them. The Indo-Islamic style evolved out of the amalgamation of the styles of both the groups. Let's examine the major features of this style.

- Arches, domes, and minarets were the notable features of this style
- Figures of flowers and plants were carved for decorating buildings.



Figures of plants and flowers used for decorating buildings



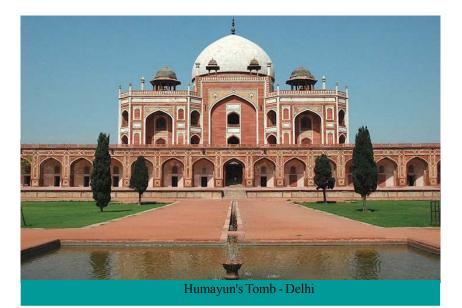
- Mortar, red sandstones, and marbles were used for construction.
- Spacious gardens were set on the building premises.

The Qutab Minar was the first building constructed in this style. The construction of the Qutab Minar was started during the reign of Qutb ud din Aibak, the founder of the Sultanate. Later, Iltutmish completed the construction. A tall tower and balconies projecting from it are the striking features of this building.

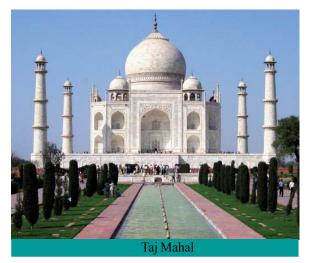
The Indo-Islamic style became popular during the Mughal period. The Mughal kings constructed several forts, mosques, and tombs in this style.

Let's have a look at a few of these constructions.

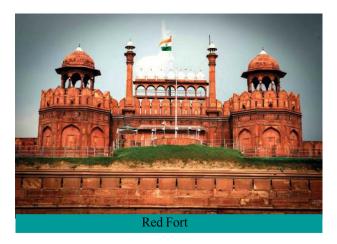
Humayun's Tomb in Delhi is an epitome of this style. It is situated at the centre of a beautiful garden. This tomb is made of red sandstone and marble. The Taj Mahal was constructed in the style and form of this monument.



Medieval World



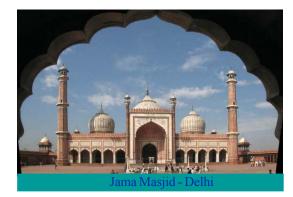
The Taj Mahal in Agra, constructed by Shah Jahan in memory of his wife Mumtaz Mahal, is the best example of Indo-Islamic style of architecture. White marble was used for its construction.



Here is the picture of the Red Fort in Delhi. Why is it named so?

This is the most important fort built during the Mughal period. The fort is made entirely of red sandstone.

Another building constructed in this style is the Jama Masjid in Delhi. Marble and red sandstone were used for its construction.



The Gol Gumbaz in Bijapur, constructed during the reign of the Bahmani Sulthans and the Char Minar in Hyderabad, constructed during the reign of the Qutb Shahi Sulthans, are also examples of Indo-Islamic style of architecture.

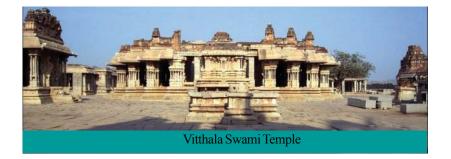


Collect information on the major structures constructed in medieval India and complete the following table.

Structure	Name	Features
	Brihadiswara Temple	 Situated in Tanjavoor in Tamil Nadu. Constructed by Rajaraja, the Chola king. One of the spacious and tall temples in India. Multi storeyed temple made of chiselled stones.
		• •
		• •
		•
		• •

Identify the common features of the Indo-Islamic style of architecture and prepare a note.

Vitthala Swami Temple and Hazara Rama Temple are the important temples built during the medieval period by the Vijayanagara kings of South India. Let us see how these structures are different from the earlier ones.



- They are multi-storeyed and built of chiselled rocks.
- Mandapas were built adjacent to the temples.
- Pillars with carvings were constructed.
- Temples were expanded.

During the 16th century, the Portuguese introduced a new style of architecture in India. It is known as the Gothic style. Pointed towers and arches are the major features of this style. the St. Francis Church in Kochi and the Bom Jesus Church in Goa are examples of this style.

The buildings constructed in the styles of architecture discussed above are the symbols of the rich and diverse cultural tradition of India.



Music and Painting

Apart from architecture, music also flourished during the medieval period. Carnatic music flourished in South India. Purandaradasa was the famous Carnatic musician of the age.

During the Sultanate - Mughal period, the influence of Persian music gave birth to a new style of music. It is known as Hindustani music. Amir Khusrau, Tansen, etc. were the famous musicians of the period. Qawwali, a form of music, developed back then. Amir Khusaru played a major role in its development. Many new musical instruments evolved during

this period. Tabala and sitar are examples of such instruments.

Several remarkable changes were apparent in the field of painting too.

Observe the pictures below.

Qawwali

Qawwali is a form of music evolved in Khanqah where Sufi saints resided. The spiritual songs composed in Urdu are sung in tune to the fast rhythm of different musical instruments.







What were the themes adopted for painting during that period? The major themes were from the Ramayana, the Bible, royal life, and nature.

Literature

In addition to the progress in the fields of architecture, music, and painting, literature also gained much advancement in medieval India The Bhakti and Sufi movements which originated during the medieval medieval medieval medieval period played a major role in the G progress of literature.

The Bhakti Movement strengthened the vernaculars.

Bhakti Movement

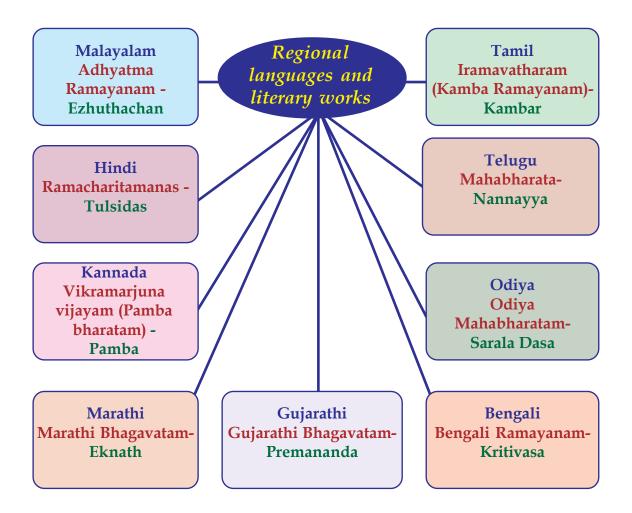
The Bhakti Movement formed in South India was based on deep love and devotion towards God. The Alvars and the Nayanars were the two streams of the Bhakti Movement. The Alvars are Vaishnavites and the Nayanars are Shaivites. The ideals of this movement spread to North India by the 14th century. Guru Nanak, Kabirdas, Tulsidas, Surdas, Tukaram, Mirabai, and Chaitanya were the main propagators of the Bhakti Movement in North India.

The poets of the Bhakti Movement wrote in the language of the common people. It stimulated the development of the following regional languages:

- 🔵 Malayalam
- 🔵 Telugu
- 🥥 Kannada
- 🔵 Marathi
- 🥥 Hindi
- Bengali
- 🥥 Gujarathi

Sufi Movement

The Sufis rejected luxurious life and gave importance to spiritual life. The term Sufism was derived from the Arabic word *Suf*. Khwaja Muinuddin Chishti, Nizamuddin Auliya, etc. were the propagators of Sufism. The names of some major literary works in regional languages and their authors are given below.

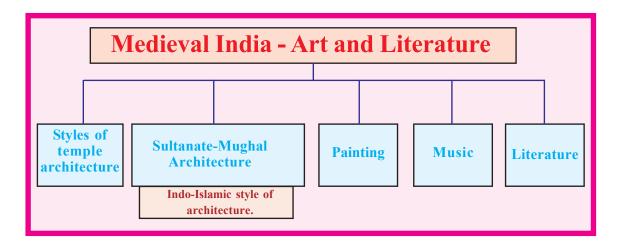


Collect information on the literary works in regional languages and the respective authors from the given chart and complete the table given below.

Regional languages	Works	Authors

The Sufi Movement played a major role in the development of the Urdu language. Urdu was formed by the hybridization of Arabic, Persian and the Indian languages, Hindi and Sanskrit.

Several books were translated into Persian during the medieval period. A department exclusively for translation functioned during the reign of the Mughal emperor Akbar. Many Sanskrit texts including the Ramayana and the Mahabharata were translated into Persian during that period. It was Dara Shukoh, the son of Shah Jahan, who translated the Upanishads and the Atharva Veda into Persian. The translations played a major role in spreading the knowledge and culture of India to other parts of the world. It led to the cultural exchange with the rest of the world.



- Summary

- Indian architecture developed through different periods.
- The influence of different styles of architecture is apparent in the structures of medieval India.
- Indian music and painting developed as a result of the mixing of different styles over the ages.
- The Bhakti and Sufi movements contributed to the progress of literature and the development of regional languages.



The learner

- explains the features of different styles of medieval Indian architecture.
- analyzes the features of the Indo-Islamic style of architecture.
- analyzes the changes brought about in the fields of music and painting in medieval India.

evaluates the role of the Bhakti and Sufi movements in the growth and development of literature and regional languages in medieval India.



- Find out the features of the Indo-Islamic style of architecture.
- Complete the table of structures and their corresponding periods of construction.

Structures	Period		
Brihadiswara Temple	Chola Period		
Qutab Minar			
Humayun's Tomb			
Taj Mahal			
Red Fort			

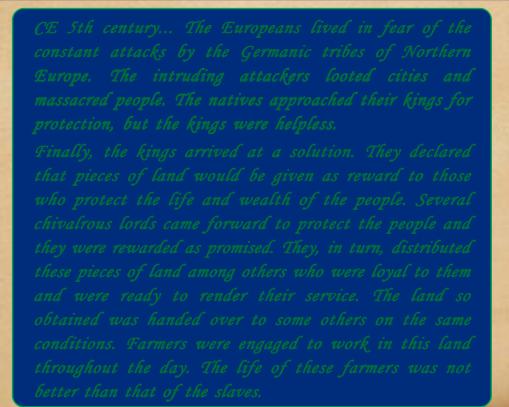


- Collect the historical and interesting information related to different constructions in India.
- Collect pictures of the propagators of the Bhakti-Sufi movements and prepare an album with captions.
- Prepare a list of the propagators of the Bhakti movement and the current names of the Indian states where they functioned.
- Prepare a wall magazine using the pictures related to Mughal paintings.

Self assessment			
	Completely	Partially	Need improvement
Can identify that the Indian architecture developed through different periods.			
Can explain the features of the Indo- Islamic style of architecture.			
Can evaluate the growth and development of architecture, music, and painting in medieval India.			
Can recognize that the medieval structures are the cultural symbols of India.			
Can analyse the influence of the Bhakti- Sufi movements on the Indian culture.			



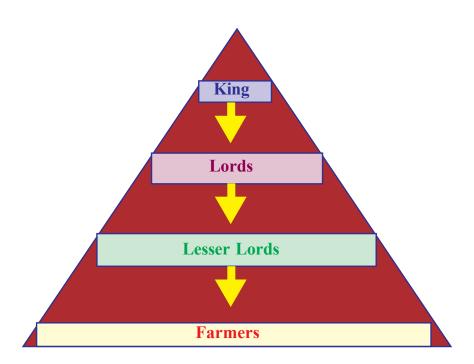
Medieval World



The above description gives us some hints about the European history between the 5th and the 15th centuries CE. In world history, this period is known as the medieval period. We have discussed the history of medieval India in the previous chapter. What information about the history of medieval Europe can you gather from the given description?

- On The Europeans constantly faced attacks
- The King distributed pieces of land to the lords who helped in defending the attacks.

From the diagram given below various strata of medieval European society can be identified.



The king enjoyed the highest status in the society. He was the sole owner of the entire land. He distributed land among the lords. In return, the lords offered military service. The lords in

turn gave a part of their land to lesser lords and demanded services from them.

This social system in medieval Europe, formed on the basis of land ownership, is called 'feudalism'. The farmers stood at the lowest stratum of the feudal society. They were the majority and were compelled to work in fields and houses of the lords. The vast areas of land held by the lords were known as 'manor'. Apart from the fields, each manor consisted of meadows, manor house (the residence of the lord), mills, huts of farmers, and a place of worship.

Feudalism

The word 'Feudalism' was derived from the German word 'feud' which means 'a piece of land'.

Discuss and prepare a note on the plight of the farmers in the feudal society.

Cities, Trade, and Trade Guilds

Trade was not prominent during the feudalistic period in the medieval era. The products of the manor were consumed right there. The farm products and farming tools were exchanged in the local markets.

Many new cities, developed in Europe by the 11th century CE. Centres of trade and handicrafts gradually developed into cities. Areas around ports also became cities. Such new cities initially began to develop in Italy. The Italian cities had trade relations with the Asian and the West European countries. Venice, Milan, Florence, and Jenoa were the major newly developed Italian cities. Nuremberg (Germany) and Constatinople (Turkey) were the other major European cities. Spices, gems, and cloths from India and China were imported to these cities. From there, these goods were transported to other European countries.

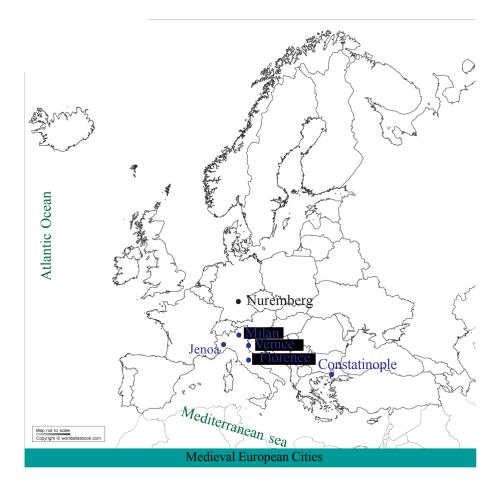
Most of these cities had their own administrative system. Tall boundary walls were built to protect these cities. These cities were not at all hygienic and were under the threat of epidemics like the plague.



'How many valiant men, how many fair ladies, (had) breakfast with their kinfolk and the same night supped with their ancestors in the next world! The condition of the people was pitiable to behold. They sickened by the thousands daily, and died unattended and without help. Many died in the open street, others dying in their houses, made it known by the stench of their rotting bodies. Consecrated churchyards did not suffice for the burial of the vast multitude of bodies, which were heaped by the hundreds in vast trenches, like goods in a ships hold and covered with a little earth.'

Giovanni Boccaccio - Decameron

The plague was an epidemic that posed the greatest threat to the medieval cities. Boccaccio draws the terrifying picture of a city affected by the plague. The epidemic struck hard especially on the port cities. The ships that brought goods carried rats that caused the plague. This disease came to be known as 'Black Death' as thousands of people succumbed to it. The population of Europe which was 73 million in CE 1300, dropped to 45 million in a century, after the attack of the plague.



Read the map. Identify and list out the countries where medieval cities developed.

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The newly developed European cities were the centres of handicrafts and trade. The traders in these cities formed associations called 'guilds'. Apart from traders, blacksmiths, goldsmiths, leather workers, and carpenters also formed guilds. The guilds fixed the prices and the quality of products and the working hours of the labourers.

Evaluate the role of the guilds in the economic life of medieval Europe.

Knowledge and Art in Medieval Europe

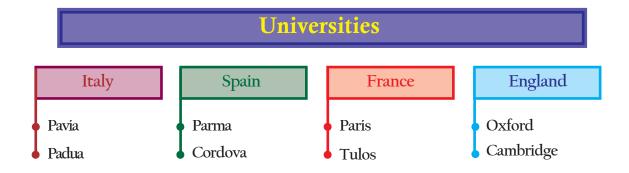
In medieval Europe, knowledge and art attained remarkable progress. Churches and monasteries were the major centres of education. There were libraries attached to the monasteries. Before the invention of printing technology, manuscripts of many books were prepared and preserved in the monasteries.



Preparing manuscripts - An illustration

Medieval World

Several universities functioned as centres of knowledge in medieval Europe. Read the table below and identify them.



Architectural splendour of medieval Europe is evident in the construction of churches. Arches and spacious interiors are the features of the churches constructed during this period. This style of architecture is known as the Romanesque style. A new style of architecture known as the Gothic evolved by the 12th century CE. Pointed towers are a major feature of this style.



Medieval China and the Arab World

We have discussed medieval Europe. The Chinese and the Arabs also made significant contributions in the fields of knowledge and art during the medieval period. The Chinese invented the printing machine and gun powder. The Europeans acquired knowledge about these from the Chinese. The printing technology helped the development of knowledge. The mariner's compass, an instrument to find direction during navigation is also a Chinese contribution.

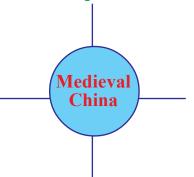
They were excellent in architecture too. This is evident in the construction of 'pagodas', the Buddhist centres of worship.





Complete the diagram with the Chinese contributions to science, technology, and art during the medieval period.

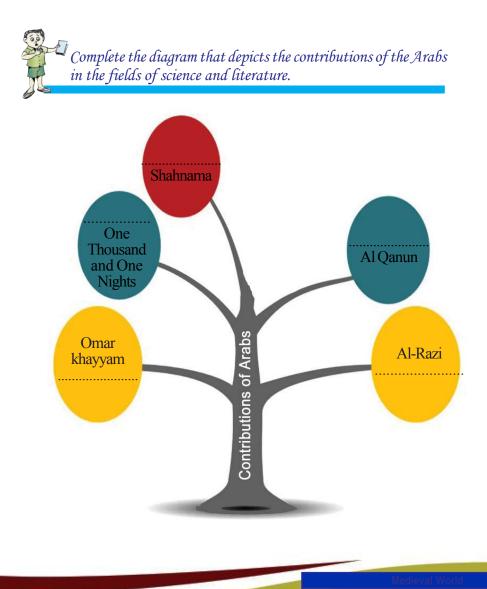
Printing machine



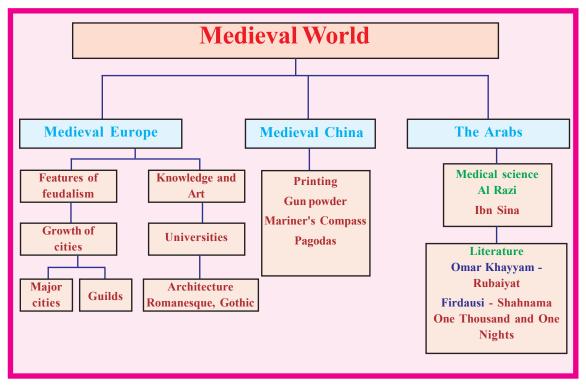
The significant contributions of the Arabs were in the fields of science and literature. Al Razi and Ibn Sina were the scholars in the field of medical science. Quitabul Hawi written by Al - Razi is a work on medical science. Al Qanun is the work of Ibn Sina.

'Rubaiyat' of Omar Khayyam and 'Shahnama' written by Firdausi are the remarkable literary works of the period. The famous 'One Thousand and One Nights' (Arabian Nights) is another literary contribution of the Arabs.

The Arabs acquired knowledge on science and technology that originated in ancient India. They propagated it in Europe. The concepts of zero and the decimal system are examples of these.



We have discussed the major features of medieval Europe, China, and Arabia. By the end of the medieval period, trade gained prominence and this helped the spread of progress in the fields of culture and knowledge to different parts of the world.





- Feudalism is a socio-economic and political system that evolved in medieval Europe.
- The king occupied the highest stratum of the feudal social hierarchy while the farmers populated the lowest stratum.
- Many cities originated in Europe during the 11th century CE.
- Development of trade contributed to the emergence of new cities.
- Guilds were the assocaition of traders and craftsmen of the medieval period.

- Several universities were established in medieval Europe
- The Chinese and the Arabs made significant contributions to the world in the fields of science and literature.



The learner

- explains the major features of the feudal system.
- explains the background that led to the origin of cities in Europe during the medieval period.
- lists out the cities that developed in Europe during the medieval period.
- explains the progress in education during the medieval period.
- recognises the cultural progress and achievements of the Chinese and the Arabs during the medieval period.



- Which were the various strata of the feudal society?
- Examine the life of the farmers in the feudal society.
- Analyse the role of trade in the development of medieval cities.
- What are the features of the churches constructed during the medieval period?
- Explain the significant achievements of the Arabs in the field of science and literature.
- Prepare a note on the contribution of the Chinese in the field of science and technology.

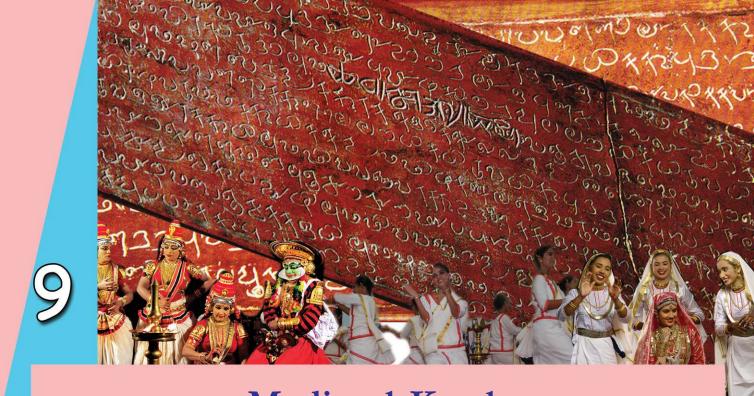
O Match the items in column A with the items in column B

Α	B
Italy	Cordova
China	Shahnama
Spain	Jenoa
AlRazi	Printing technology
Firdausi	Quitabul Hawi



- Prepare a chart showing various strata of the feudal social hierarchy and their features. Exhibit it in the Social Science lab.
- Locate in a world map the countries where medieval cities originated and colour them.
- Collect and read 'One Thousand and One Nights' from your school library.

Self assessment			
	Completely	Partially	Need improvement
Can identify the various strata in the feudal society.			
Can analyse the plight of the farmers in the feudal system.			
Can list the universities that originated during the medieval period.			
Can evaluate the achievements of the Arabs and the Chinese in the field of science and literature.			



Medieval Kerala

We have discussed the history of medieval India in the previous chapters. Now let's discuss the social life in Kerala during the period. Copper plates are the important source of history of medieval Kerala between the 9th and the 18th century CE. The picture of such a copper plate is given below.





The copper plates with inscriptions were used as document in ancient times. The official documents given by the chieftain's to temples and tradesmen were mainly on such copper plates. Therisappalli and Jewish copper plates are examples. In some of the plates the chieftain's reigning period is also recorded. Are you familiar with the script used in it? The script used here is *Vattezhuthu*, an old script. This copper plate is a record of the rights sanctioned to *Anchuvannam*, a group of traders, by Bhaskararavi, a medieval ruler of Kerala based at Mahodayapuram.

Do you know where Mahodayapuram was located? Let's have an inquiry into Mahodayapuram, its rulers and the life of the people.

Perumals

Kerala was a part of the ancient *Tamilakam*, ruled by the *Moovendars*. We have discussed the ancient *Tamilakam* in the previous class. A kingdom based at Mahodayapuram was established by the 9th century CE. The rulers of the kingdom were known as *Perumals*.

The present Kodungallur and the surrounding areas were known as *Mahodayapuram* in those days. The *Perumals* were also known as *Cheras* and *Cheramans*. Some of these rulers adopted the title *Kulashekara*. Most regions in the present Kerala were under the rule of the *Perumals*.

Read the map and identify the regions under the reign of the *Perumals*'. List the *nadus*.

Nadus during the Perumal period CE 800 - CE 1122



You can see that the reign of the *Perumals* extended from *Kolathunadu* in the north to Venad in the south.

Let's examine the socio-economic features of these regions during the reign of the *Perumals*.

- Agriculture flourished in areas close to water resources.
- Brahmins established their power in agricultural villages.
- Temples developed as centres of power.

On the ownership of farm lands was vested with the Brahmins.

Aaladiyars were the people who toiled in the soil.

Besides farmers there were many other occupational groups in villages. As agriculture became widespread, large areas of land called *Nadu* developed. Those who established power over the *Nadus* came to be known as *Naduvazhis*.

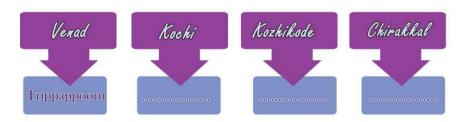
Naduvazhi Swaroopam

The reign of the *Perumals* came to an end by the 12th century. Consequently the chieftains, who were the local rulers under the *Perumals*, began to rule their respective *Nadus* independently.

The region under the control of a chieftain was known as *Swaroopam*. The joint family of the chieftain was also known as *Swaroopam*. The eldest member of the family became the ruler. There were disparities in wealth and military power among the *Nadus*. The chieftains fought among themselves for power.

The major *Swaroopams* during the period were *Trippappooru Swaroopam* in Venad, *Perumpadappu Swaroopam* in Kochi, *Nediyiruppu Swaroopam* in Kozhikode, and *Kolaswaroopam* in Chirakkal.

Complete the table.



Trade

Internal and external trade made great progress in Kerala during the medieval period.

Ocan you guess the goods that were exchanged from Kerala?

Ginger

- Cardamom
- •

Goods from other lands also reached the markets of Kerala by trade. Given below are a few of these goods.

- Clay pots
- Fishing net
- 🔵 Silk

Earlier, trade was carried out through the exchange of goods for goods. Later, goods began to be exchanged for money. Trade groups namely, *Anchuvannam, Manigramam*, etc. existed

during the period. Realizing the importance of trade, the *Perumals* extended every help to the trade groups. Tax on trade was an important source of income during the period.



They were the trade groups that existed in Kerala from the 9th to the 13th century CE. Coastal towns of Kerala were their major commercial centres.

Markets

Maritime trade attained tremendous progress during the medieval period. The demand for exported goods increased. This resulted in the increase in the cultivation of such crops in rural areas. These goods were exchanged in the markets. The development of markets helped in strengthening the local trade.



Ananthapuram, Kollam, Kochi, Kozhikode and Panthalayani were the major markets of the period. The major ports were Kollam, Kochi, Kozhikode, and Valapattanam.

Locate these ports on a map of Kerala.

Several goods reached the markets in Kerala through land and sea trade. See the description of these goods in *Unnuneeli* sandesam, a poem in manipravalam.

Manipravalam

A new style of language evolved during the medieval period. It was a mixture of Sanskrit and old Malayalam. The newly developed style of language came to be known as Manipravalam. Several literary works were written in this style during the period. ആം കട്ടിൽ കയറുവല കൈക്കട്ടിൽ മഞ്ചട്ടികൊട്ടം മൊട്ടും മുട്ടിൽക്കരയുമരിയും പെട്ടിയും പട്ടുനുലും ആടും ചാടും കുടയുമടയും പഞ്ഞിയും മുഞ്ഞിവേരും നുറും ചോറും ചുറയുമേയും കാരിരിന്നും കരിമ്പും List the items available in the markets during the period.

Are these items still available in your area?

In the previous chapters we have discussed the travelogues that described trade.

Let's now go through the description of the 15th century Calicut port and trade by Ma Huan, a Chinese traveller, who visited Kerala during the period.

"As a ship carrying goods from China arrives at the port, Shabendar Koya (the King's representative) and a broker board the ship and list the goods. A suitable day is opted to fix the prices of goods. Priority was given to silk clothes. Once the prices are fixed they take a vow that the prices of goods will not be changed under any circumstances."

Thus the goods were exchanged for the price fixed by the *Dallals* (brokers).

Prepare a note on the 15th century trade in Kozhikode collecting details from Ma Huan's description.

Language, Art, and Literature

We have read a few lines from *Unnuneelisandesam*. Do you know when this form of language and literature evolved? Do you think Malayalam have been in use since ancient times?

• Why is Kerala known as *Malayaladesam*? Discuss. It is generally believed that Malayalam has evolved from Tamil. Sanskrit also has greatly influenced the development of Malayalam. *Vattezhuthu* and *Kolezhuthu* were the scripts used to write old Malayalam. Recall the Jewish copper plate written in *Vattezhuthu* script. *Krishnagatha* by Cherussery, *Adhyatma Ramayanam Kilippattu* and *Mahabharatham Kilippattu* by Ezhuthachan, *Thullal* literature of Kunchan Nambiar, etc. contributed to the development of the Malayalam language.

The *Mohiyudheen Mala* written in Arabi Malayalam by Quazi Muhammed in the 17th century and *Puthanpana* written by Arnos Pathiri in the 18th century enriched the language. Besides these, the *Vadakkanpattu*, *Tekkanpattu*, and *Thozhilpatttu* also

contributed to the popularity of Malayalam.

Arabi Malayalam

Arabi Malayalam is a hybrid language that was common among the Muslims in Kerala. Arabic script was used to write this language.



Collect verses from different types of folk songs mentioned above and present in the class.



Observe the above picture. Which art forms are depicted in it?

These are a few art forms that developed in medieval Kerala. Dance and music flourished in temples during the period.

Koothu, Koodiyattom, and Kathakali were staged in the Koothambalam attached to temples. Hence these art forms

came to be known as temple arts. The ritual art forms like *Theyyam, Thira,* and *Kalampattu* were performed in *Kavus* (sacred groves) and other places of worship. They were more popular than the temple arts.

What is the stage where the temple arts are performed called?

Why are the ritual arts considered more popular?

Apart from these, several other art forms were performed in connection with the rituals and celebrations of different religious communities. *Oppana, Margamkali, Chavittunadakam,* etc. are a few examples.

Knowledge

Medieval Kerala had gained much progress in the field of knowledge. Sankaranarayanan was a famous astronomer during the reign of the *Perumals*. He has authored *Sankaranarayaneeyam*, a book on Astronomy. The contributions of Samgrama Madhavan to Mathematics gained worldwide acclaim. *Ashtanga hridayam* on Ayurveda was also written during this period. The two important literary works on history, *Mooshaka Vamsam* and *Tuhafat Ul Mujahideen* were also written during the medieval period.

The centres of education during the period were attached to temples and were known as *Salais*. Those attached to Buddhist centres were known as *Palli*.

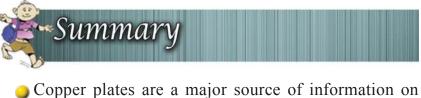
Include the contributions of medieval Kerala in the field of knowledge to complete the diagram .

Salais

- Kanthaloor Salai
- Vizhinjam Salai
- Parthivasekharapuram Salai



A different socio-economic system developed in Kerala by the 18th century. Language, art, literature, and knowledge gained a unique identity during the period.



- Copper plates are a major source of information on medieval Kerala.
- Kerala developed as a distinct administrative territory during the reign of the *Perumals*.
- Agriculture and trade formed the base of economy during the *Perumal* reign.
- Ochieftains gained power with the decline of the *Perumals*.
- The areas ruled by the chieftains were known as Swaroopams.

- Obmestic and foreign trade flourished leading to the development of new markets and ports.
- Malayalam language got enriched.
- O Literature, art, and knowledge prospered.



The Learner

- recognises and explains that the copper plates are a major source of information on medieval Kerala.
- identifies and presents that Kerala under the *Perumal* rule was a distinct administrative territory.
- analyses the development of domestic and maritime trade.
- explains the development attained in Malayalam language, literature, and knowledge.
- recognises the art forms of Kerala and develops an attitude to appreciate them.



- Prepare a note on the social life during the period of the *Perumals*.
- The development of villages in Kerala is closely connected to the spread of agriculture. Describe.
- Prepare a note on the domestic and maritime trade in medieval Kerala.

- List the goods that were exported from Kerala and those imported during the medieval period.
- Prepare a note on the development of Malayalam language and literature during the medieval period.
- Write a note on the achievements of Kerala in the field of knowledge in the medieval period.



Collect the pictures of art forms of Kerala and prepare an album.

Self assessment			
	Completely	Partially	Need improvement
Have become aware that Kerala developed into a distinct administrative territory during the reign of the <i>Perumals</i> .			
Can recognize the progress of agriculture and trade in medieval Kerala.			
Can evaluate the ascent of chieftains to power with the decline of the <i>Perumals</i> .			
Can analyse the development of markets and ports during the medieval period.			
Can explain the progress attained in the fields of literature, art, and language during the period.			

10

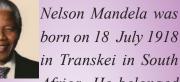
Democracy and Rights

| have always fought against white domination and | have fought against black domination.] have cherished the ideal of a democratic and free society in which all persons live together in harmony and with equal opportunities.]t is an ideal which] hope to live for and to achieve... all of us will be equal in a democracy.

Nelson Mandela

These are the words of Nelson Mandela who fought against the antidemocratic government in South Africa. What kind of a state was he fighting for? He dreamt of a democratic system, where everyone is





born on 18 July 1918 in Transkei in South Africa. He belonged

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to the Kasosa tribe. He fought for the rights of the Blacks, who constitute 80% of the population in South Africa. He was the leader of the African National Congress. He was accused of treason and *was kept imprisoned for twentysix* vears seven months and ten days. Released on 11 February 1990, he became the president of South Africa on 10 May 1994. He died on 5 December 2013 at the age of 95.

considered equal. In earlier classes you have learnt about democracy. History teaches that democratic movements have sprung up wherever nondemocratic governments existed. Given below is a remarkable example for the struggle for a democratic form of government. Find out more examples and expand the list.

Indian freedom struggle

While democratic system is widely accepted, non democratic governments also exist in different countries. What features distinguish a democratic government from other forms of government? Which are the different forms of government that exit in the world today? Observe the news headlines given below.

King of Bhutan arrives for a N9T9 Aayog will rep Planning Commission in four - day visit. rime Minister Brunei Sultan will Strong protest by democrats declare his successor today. against military rule in Myanmar

Let us arrange the countries and governments mentioned in the news headlines as follows.

Country	Form of government
Bhutan	Constitutional monarchy
India	Democracy
Brunei	Sultanate
Myanmar	Military



What are the differences among the forms of government listed above? The King of Bhutan and the Sultan of Brunei inherited power. These are examples of non-democratic forms of government. Military government is also a form of non democratic government. A non-democratic government is formed by an individual or a group of individuals, who establish power and rule the country according to their own interest.

You are aware that India has a democratic form of government. A government formed by the representatives of the people is called a democratic government. Analyse the features of democratic and non-democractic governments from the table given below.

Democratic government	Non-democratic government
Government formed by the representatives elected by the people.	Power is passed on hereditarily or is captured.
Freedom of speech and rights of the people are legally ensured.	Freedom of speech and rights of the people are limited.
Rulers are subject to law.	Ruler is superior to law because the law is decided by him.

Make a note comparing the features of democratic and nondemocratic forms of government.

You have learned the features of democratic and non-democratic governments. Majority of the nations have adopted the democratic system. This is mainly because of the merits of democracy compared to the other forms of government.

Merits of Democratic Government

- Respects the opinion of the people.
- Protects the freedom of individuals.
- OR Rulers as well as the people are subject to the same law.
- Output Bare indebted to the people.



Now you are familiar with the democratic and non-democratic forms of government. Examine the statements given below and give \square mark against the statements related to democratic and \square mark against those related to the non-democratic forms of government.

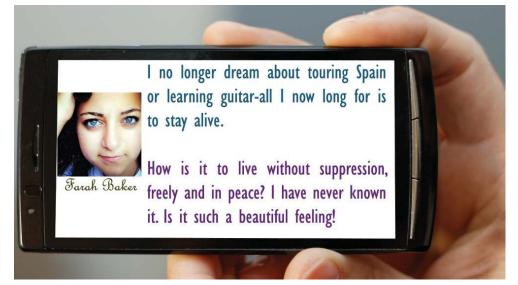
- Elections are held periodically.
- Power passed on hereditarily.
- Q Rule of people's representatives.
- Que of King/Sultan/Military Chief.
- Individual freedom prevails.
- Control over courts.
- Respects public opinion.

The most prominent factor that differentiates democratic governments from non-democratic governments is the rights they ensure. For ensuring a democratic life for the citizens it is essential that their rights are protected.

The following are some of the rights ensured by the democratic government of India.

- Right to live.
- Right to education.
- Freedom of speech.
- Freedom of association.

Do the people in all countries of the world enjoy these rights? The rights of people are effectively protected only in democratic countries. Observe the blog given below.



These are the words of a 16 - year old Palestinian girl doomed to live in a war torn country since her birth. War has shattered all the dreams and hopes of Farah Baker. There are a lot of people like Farah, living in this world, who do not know what peace, freedom, and rights mean. What do rights mean? Rights are those conditions to be ensured by the state and the society for the better life and opportunities for its citizens to develop their talents and potentials. Governments take necessary steps for the protection of rights. For this, every country incorporates a list of rights in their constitution. This list is known as 'The Bill of Rights'. The bill of rights in India is known by the name 'Fundamental Rights.'



The Universal Declaration of Human Rights

"All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood." Observe the collage given above. Some situations related to the denial of rights and attempts for their protection are highlighted. Violation of rights triggers attempts to protect them. In modern times rights are commonly referred to as human rights.

Human rights are those rights that every human being is entitled to. Here are a few rights included in the Universal Declaration of Human Rights which came into existence on 10 December 1948.

- Right to live
- Right to freedom
- Right to freedom of association

Right to occupation

Or Right to preserve culture, language, and script.

The Government of India has taken a number of steps to protect human rights at the national and state levels. The most prominent among them is the formation of the National Human Rights Commission and the State Human Rights Commission.

> Prepare a speech on 'human rights' to be delivered in the school assembly on the Human Rights Day.



Right to live means the right to live with dignity. Pure air, pure drinking water, sufficient nutritious food, etc. come under the right to live.

National Human Rights Commission

The formation of National Human Rights Commission is an important step in the direction of protecting human rights at the national level. The commission is constituted under the Human Rights Protection Law passed by the Parliament in 1993. The Commission comprises of five members including the chairman. A retired Chief Justice of the Supreme Court will be the Chairman of the commission.

Functions of National Human Rights Commission

Enquire about complaints related to the violation of human rights.

Visit jails to study the life situations of the inmates and make recommendations.

Give necessary instructions for the protection of human rights.

Promote voluntary organizations that work for human rights.



Justice Ranganath Mishra First Chairman of NHRC

State Human Rights Commission

State Human Rights Commissions are constituted in all the states. The Kerala State Human Rights Commission came into being in 1998. It consists of a chairman and two members. The functions of the State Human Rights Commission is same as that of the National Human Rights Commission. In instances of violation of human rights, one can approach the Human Rights Commission.





A few rights of children are given above. Why do children need special rights? What are the rights of the children? The physical and mental states of childhood make the children eligible for special care and consideration. Hence, protection of the rights of children is very important.

Right to education is an important right of children. The Right to Education Act of 2009 (RTE Act) passed by the Indian Parliament highlights this. It ensures free and compulsory education to children in the age group of 6 to 14. Favourable learning environment and basic facilities are the right of children. You are now aware that right to education is an important right of children. Add more rights to the list given below.

- Right to survival, protection, and development
- Right to protection and care against all kinds of mental and physical torture.
- 0
- 0
- 0

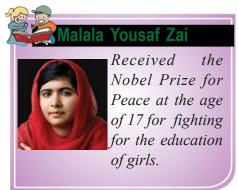


Despite all these rights of children, they are subjected to various exploitations. Several actions have been taken at the national and state levels for the protection of the rights of children. The most important among them is the formation of the National Child Rights Commission and the state level commissions.

Kailash Satyrathi



Received the Nobel Prize for Peace in 2014. Founder of Bachpan Bachao Andolan that works against child labour.

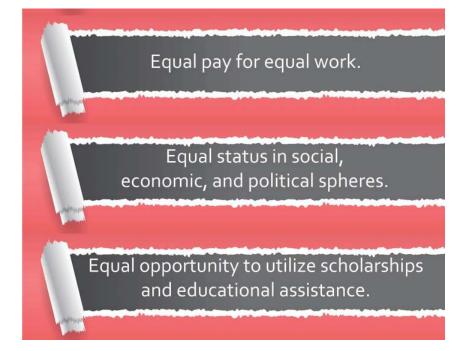


In instances of violation of children's rights, one can approach the Child Rights Commission for redressal of grievances.

Rights of Women

All institutions must constitute women's cell for the protection of women rights: High Court. Special waiting room for women in railway stations, Nirbhaya : legal action to ensure 50% reservation for women's security women in local bodies of Kerala

Observe the given news headlines that refer to certain actions related to the protection of the rights of women. In 1979 the UNO passed the Convention on Women Rights for the prevention of discrimination against women and for their uplift. What are the special rights of women? Examine the chart.



Equality with men in all respect is the right of women. For the protection of women's rights Women's Commissions function at the national and state levels. Complaints related to the denial of women's rights and abuses against women can be submitted to the commission. The commission will probe into the issues and take appropriate action.



Rights and Duties

Are we bestowed only with rights?

We have duties corresponding to each right. Examine the chart.

Rights	Duties
Freedom is my right.	Sharing my freedom with others is my duty.
As a child, protection is my right.	To protect me is the duty of my parents.
Care in old age is the right of parents.	To give my parents due care in old age is my duty.
Education and basic facilities for education is my right.	To obey the rules of the school is my duty.
In case of violation of my rights I have the right to seek remedies.	Service of the state and the society is my duty.

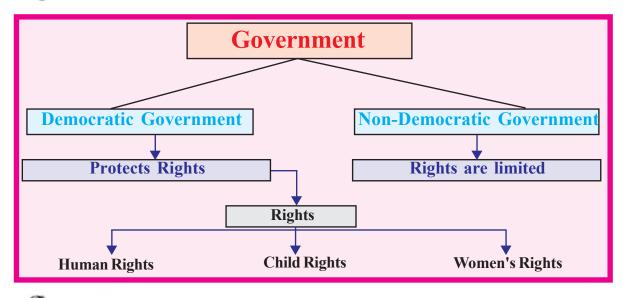
Some rights and corresponding duties are given above. Rights will not exist without duties.





- Governments can be categorized as democratic and non democratic.
- The prominent factor that distinguishes democratic governments from non-democratic governments is the rights they ensure.
- The list of rights included in the constitution is known as the Bill of Rights.
- In modern times, rights are generally considered as human rights.

- Special consideration is given to the rights of children and women.
- We have duties corresponding to the rights.





The learner

- explains the differences between democratic and nondemocratic forms of government.
- lists the merits of democratic government.
- states how the democratic forms of government and rights are interrelated.
- explains the Bill of Rights.
- evaluates the measures taken at the national level for the protection of rights.
- analyses the interrelationship between rights and duties.



Compare the features of the democratic and nondemocratic forms of government.

- What are the merits of a democratic government?
- What are Human Rights? What measures have been taken for the protection of Human Rights?
- Explain how rights and duties are interrelated.



- Prepare an album using news and pictures related to violation of Human Rights.
- List the rights you enjoy and the corresponding duties.
- Identify and list countries having non-democratic form of government.

Self assessment			
	Completely	Partially	Need improvement
Can compare the features of democratic and non-democratic forms of government.			
Can state the merits of democratic forms of government.			
Can assess the interrelation between democratic government and rights.			
Can define the Bill of Rights.			
Can explain the measures taken at the national and state levels to protect Human Rights.			
Can explain how rights and duties are interrelated.			

11

Diversity in Social Life



Observe the above pictures. Which groups of people are the pictures related to?

These pictures reflect the day-to-day life of three different groups of people in Kerala.

We shall have an inquiry into the varied lifestyles and surroundings of such people.

So that, we may understand how diverse our society is.

Tribal Community



This picture is related to a tribal community in Kerala.

Tribes have unique lifestyles. They are the descendants of the ancient human societies of our country. Now they are generally confined either to forests and hills or to the interior parts and isolated valleys.

You might have heard of the different tribes in Kerala. Try to recollect the names of a few tribal communities.



) Paniyar

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Kurichyar

Features of a Tribal Community

Tribal communities of Kerala

As per the 1976 amendment of the Scheduled Caste/ Scheduled Tribe Act, there are 35 tribal groups in different parts of Kerala. The Paniyar tribe scattered in different districts is the largest. Let us try to identify the features of the tribal communities.

Generally the tribal settlements are located in the hills, forests or isolated valleys. Each tribal group lives together in a particular area. Their lifestyles are totally different from that of other communities.

- Traditional type of cultivation and gathering of forest products are the means of living of these tribes. Many of them are engaged in their traditional artisan works.
- Every tribal society has its own language. These dialects have no script.

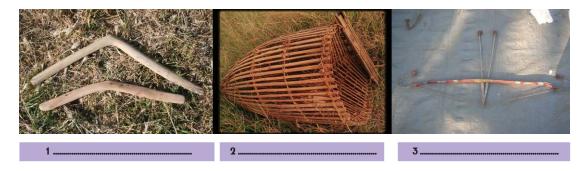
Listed below are a few words used by the Malaya tribes of Kerala.

Vendiyaaru	-	wife
Vetharu	-	husband
Appan	-	father
Peppan	-	grandfather
Molaru	-	daughter
Monaru	-	son
Aachi	-	elder sister
Chattan	-	elder brother

These are words indicating family relations. Aren't they similar to what we use today?

The tribes have their own peculiar lifestyles. They live in close contact with the nature. Geographical features have an important role in formulating the social life of these people.

Observe the following pictures.



What do you think the tribes use these implements for? Write their uses below each of the pictures.

Isn't it clear that the implements of the tribes are related to their surroundings?



The tribes were not of the habit of recording their history or recording the knowledge they acquired. Hence, their myths, folk songs, and local knowledge are not that familiar to others. Their ethnic art forms and rituals still prevail, though with changes. Read a nature song of the 'Malaveda tribe' in Kerala.

ഇച്ചച്ചമെന്തു ചെയ്തേലേലാ ഒരു മീന്തുചത്തു പോയേലേലാ ചത്തമ്മീന്തു എന്തു ചെയ്തേ ലേലാ ഒരു പരന്തുറാഞ്ചിഷോയേലേലാ ആ മീന്തു എന്തു ചെയ്തേലേലാ ഇരുളുമറിന്തു പോയേലേലാ ഞമ്മരമെന്തു ചെയ്തേലേലാ ചെറുമീന്തുതാനും പോയേലേലാ കലമ്പുഴേല് താന്തുപോയേലേലാ



Collect such tribal folk songs prevalent in Kerala and present them in your class.

The place where the tribal people live together is known as *ooru*. Each *ooru* has a leader. People respectfully call him *oorumooppan*. The *mooppan* or a group of senior members including the *mooppan* look after the administration of the *ooru*. Either the *mooppan* or the elderly group will have the supreme power in taking decisions on matters like marriage, other disputes, customs, rituals, etc.



Visit your nearby tribal village (*ooru*), if any, and observe the features of their life.

Rural Community

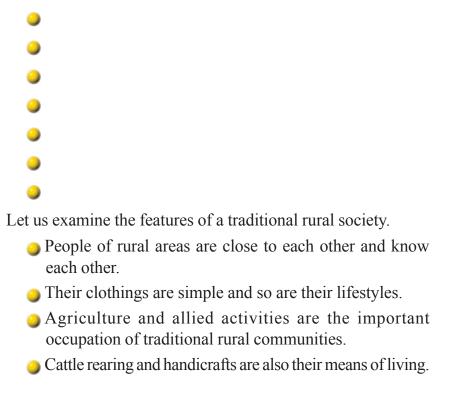
Given below is a picture drawn by Meena, an eleven-year old girl. The theme of the drawing is her village. Observe the picture carefully. What are the peculiar features of the lifestyles she has depicted? List them.

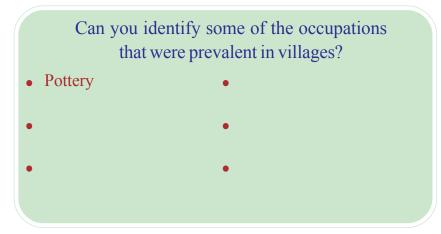


Activities related to agriculture

• Other aspects

What do you understand about Meena's community from these features? What will you call such a community ? List the major features of a rural community.





- Joint family system had great importance in traditional villages.
- Many rural joint families had their own traditional occupations undertaken by their clan.
- Villages give importance to neighbourhood relations. They share and care for each other's happiness and sorrow. Generally all of them take part in rituals and festivals.
- Over the state of the state
- Festivals have a great place in the village life. Harvest festivals were the major celebrations in the villages.

India continues to be a land of villages. But many of the villages are getting transformed into towns and cities. It is also noticed that many fetaures of traditional villages are vanishing now.

Changing Villages

Can you trace the changing face of our villages? What are the changes you can identify in the modrn villages?

Many of the villages do not retain their original form any more. Villages transform into towns, towns into cities, and some cities to metro cities. The cities attract the village folk, offering better prospects in employment, education, etc. People migrate on large scale to cities like Mumbai, Delhi, Kolkata, Chennai, Bengaluru, and Kochi. Observe your village/nearby village and find out how they are different from the traditional villages discussed above. Prepare a note on it.

Urban Community

Have you ever visited a metro city?

Read the letter sent by Sheena, a sixth standard student, to her friend Archana.

Dear Archana,

I am writing this letter from Bengaluru city. Today Bengaluru has become one of the important cities in India. The region has grown into a mega city over the last fifty years. It is full of sky scrapers. Metro cities are aptly called concrete jungles. These buildings are so tall that you cannot see their tops. Most of the streets are two-line tracks. Vehicles ply in both directions along separate tracks. Never-ending traffic can be seen at all times. Hence it is not possible to cross the roads as you please. You have to use the zebra crossings and wait for the green traffic signals. Otherwise you are finished!

The multitude of vehicles cause environmental pollution. Vehicles and factories are equally responsible for air pollution. Scarcity of fresh water is also a major problem in Bengaluru. Flats can be seen everywhere here. Many people live in big villas and flats. I am told that a building accommodates nearly 200 families. There are several schools and colleges.

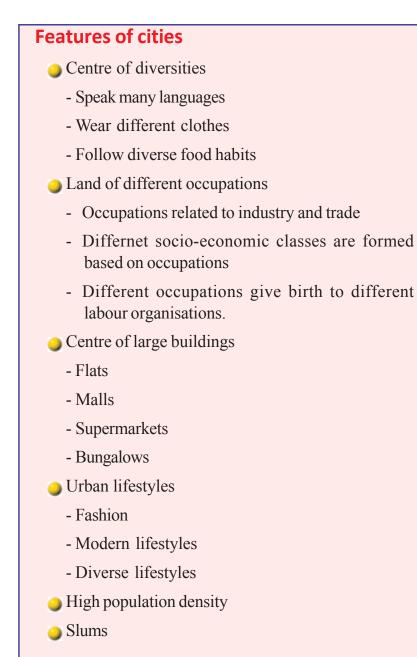
It is true that Bengaluru city has parks and gardens. The museums and the zoo are enchanting. Actually I am eager to stay here for a few more days and do sight seeing. Would you like to join me, Archana?

With love

Bengaluru 16th May 2014

Sheena

Haven't you got the picture of a city when you read Sheena's letter? Let us prepare a chart showing the peculiar features of cities.



Problems in Cities



Cities attract many. But, there are reasons for cities to be disliked as well. Why? Look at this picture.

The picture shows the traffic congestion in a city. The multitude of vehicles causes air pollution. This leads to many diseases.

It is a reality that cities possess many facilities as well. But, do you know that cities are also centers of several problems?

Some people find it tough to live in cities.

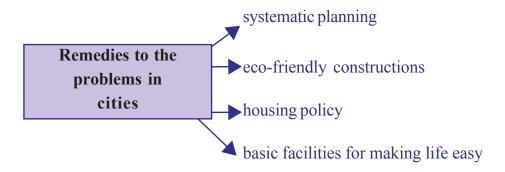
Both the upper class, who enjoy all comforts in life, and the poor lower class in slums live in the cities. Many of the problems in the cities affect all of them.

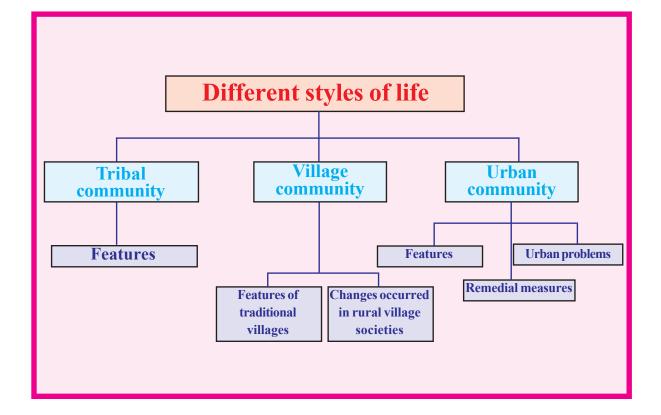
Let us find them out.



Collect news items from the newspapers regarding the problems in cities. Prepare and present a collage in the class using news on traffic blocks, slums, use of drugs, and crimes.

What are the solutions to the problems in the cities and villages? Discuss in groups. You can use the following chart for discussion.







- Majority of the tribal communities live in the hilly regions or other remote areas.
- O The tribal communities have unique culture and lifestyles.
- The language and culture of the tribal societies are transmitted orally.
- Primary relations, agro-based occupations, importance of neighbourhood and family relations, influence of festivals, etc. are the features of villages.

- Social diversity, division of labour, and social mobility are the features of urban society.
- Slums, pollution, traffic congestion, etc. are the major urban problems.
- Most of the problems in cities can be solved by systematic planning.



The learner

- oprecognises and explains the features of tribal communities.
- recognises and analyses the features of rural community.
- recognises and explains the changes that occured in rural society.
- identifies the features of urban community and analyses them by comparing with that of rural community.
- identifies the problems of urban society and suggests solutions.



- What are the features of tribal society?
- Identify and explain the changes that have occurred in rural society.
- Urban life is hell. Do you agree with this statement? Justify your answer.

Compare and list the features of rural and urban communities.

Rural society	Urban society
•	•
•	•
•	•
•	•



Visit a nearby city and prepare a report on the social problems exisitng there.

Hints:

- Traffic congestion
- Slums
- Shortage of housing facilities
- Water scarcity

Prepare a magazine incorporating the art forms, songs, etc. of tribal communities.

Self assessment					
	Completely	Partially	Need improvement		
Can explain the features of tribal society					
Can explain the features of rural society					
Can identify the features of urban society					
Can identify and list the changes that have occurred in the modern villages.					
Can identify the differences between rural and urban communities.					
Can identify the problems faced by urban society					
Can suggest some measures to solve urban problems					

Gift of the Nature

Nauru, a small island in the Pacific, was described as the richest country in the world, by the international journal 'National Geographic' in 1976. This island which is just 21 square kilometres in area was once lush green and was the abode of several migratory birds. But now Nauru is a barren land. The resources are now completely exhausted. Sparsely populated land with exposed coral reefs everywhere...Don't you want to know how Nauru became like this? Nauru was rich in phosphate, the mineral used for making chemical fertilizers. The ill fate of Nauru began when Germany established its colony there in 1888 and started phosphate mining. Britain, Australia, and New Zealand also started mining activities following the First World War. Nauru prospered through phosphate mining. But the uncontrolled mining activities led to the extensive clearing of natural vegetation. This led to the extinction of many birds and animals which resulted in the transformation of environment. Phosphate deposits also got exhausted turning Nauru to an absolutely poor country in every respect. You have read about Nauru, the country which was once rich because of its phosphate mineral resources but now has become poor due to the depletion of the same! Now you might have the following questions.

> What are resources? What causes resource depletion? Should these resources be conserved?

This unit helps you to understand more about resources, resource depletion, and resource conservation. Those things useful to man are called resources. Given below are the pictures of a few resources we obtain from nature.



The things directly obtained from nature and are useful to man are called natural resources.

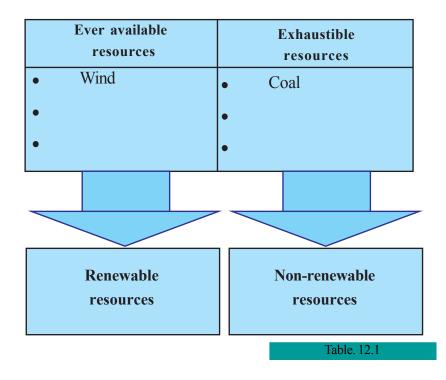
Our nature is endowed with innumerable resources such as air, sunlight, wind, trees, water, etc.



A few among the resources you have listed are living things and the rest are non-living things. The living resources are called biotic resources and non-living resources are called abiotic resources.

Some of these resources are available at all times. But some resources get exhausted with use. Categorise the given resources as ever available and exhaustible in the given format (Table 12.1).





Increasing Needs; Exhausting Resources

Man makes extensive use of natural resources as if these were meant exclusively for him. The demand for natural resources increased with the increase in population, developments in science and technology, communication facilities, industrialisation, etc. This led to large scale depletion of resources. Decrease in the availability and deterioration in the quality of resources due to reckless usage is called resource depletion. This resulted in depletion of resources and changes in the environment.



"I am fighting for my future....I am here to speak for all generations to come...on behalf of the starving children....I am here to speak for the countless animals dying across this planet because they have nowhere left to go. We cannot afford to be not heard.

I am afraid to go out in the sun now because of the holes in the ozone. I am afraid to breathe the air because I don't know what chemicals are in it...

.....the great herds of wild animals, jungles and rainforests, full of birds and butterflies, but now I wonder if they will even exist for my children to see.

Did you have to worry about these little things when you were at my age?

.....yet we act as if we have all the time we want and all the solutions.....but I want you to realise neither do you!

You don't know how to bring salmon back up a dead stream.

And you can't bring back forests that once grew where there is now desert. If you don't know how to fix it, please stop breaking it!

.....

The lines you read above are excerpts from a speech given in the first UN Earth Summit at Rio de Jenerio in Brazil in 1992. Listening to Severn Cullis Suzuki, a 12-year old girl from Canada, the representatives of various countries who attended the summit were left speechless.

What are the worries shared by the girl in her speech?

- Air subjected to pollution
- Forests subjected to destruction
- Animals facing the threat of extinction
- 0



It was the speech delivered by Smt. Indira Gandhi, the then Prime Minister of India, in the Conference of United Nations Organization held at Stockholm in 1972, which led to the observation of 5 June as the World Environment Day.

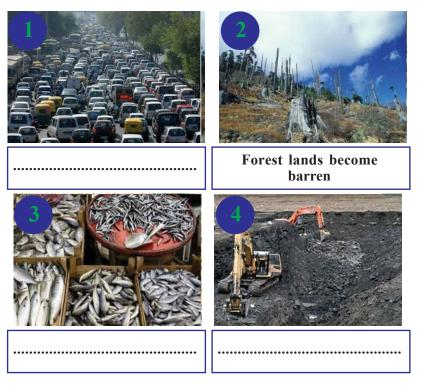


Dodo is a bird that became extinct, because of reckless exploitation of resources by man. Dodo birds were the inhabitants of the Mauritius islands in the Indian Ocean and

were killed extensively for meat. Other animals that are now extinct include Auroch cattle found in India, Asian cheetah, etc.



Observe the pictures given. What will be the consequences of man's reckless use of resources? Write footnotes for these pictures.





What will happen if water, soil, petroleum and forests disappear from the earth? Discuss.



It is estimated that about 3 million cubic metre of wood is being used by man every year. Man clears forests about the size of a football ground every second. Only about half of the present forest land will be left by 2020 if the present trend prevails.



Conservation of Resources

Judicious and careful use of resources as well as giving enough time for them to replenish can conserve the natural resources.



Discuss how the situation shown in each of the pictures contribute to resource conservation.



Work sheet

Connect the columns in the respective order of activities indicating overuse of resources, the type of resources depleted by such activities, and the remedial measures (Table 12.2). More remedial measures may be added.

Overuse of resources	Resource	Remedial measures	
	Water resource (Water bodies)	 Make use of public transport Use fuels that do not cause atmospheric pollution 	
	Forest resource (Forests)	 Don't waste fresh water Practice water conservation measures such as rain water harvesting 	
	Air resource (Atmosphere)	 Switch off electrical equipments and lights when not in use. Depend more on non-conventional energy sources such as sunlight, wind, etc. 	
	Energy resource (Sources of energy)	 Prevent deforestation Plant trees in barren lands 	
		Table 12.2	

You might have understood that the natural resources are limited and hence they are to be conserved. We have the right to use the essential resources. But we don't have the right to use them without considering the need of the future generations. 'Wise use of resources' should be our motto.

Resource conservation and Acts in India

These laws have emerged from the necessity to control the reckless exploitation of nature that poses threat to the very existence of man.

- 1. Section 48 A and Section 51 AG of the Indian Constitution stating the conservation of nature as the duty of the Indian citizen.
- 2. Nature Conservation Act
- 3. Water Act
- 4. Forest Conservation Act
- 5. Air Act

Resource conservation in Kerala

The people's movement for the conservation of the Periyar River in 1999 led to the establishment of the Water Authority. Various Acts related to resource conservation have emerged in Kerala following people's movements and through governmental interventions. Examples: Act for Protection of Paddy Fields, Act for Protection of Wetlands.

Safeguard Nature through Sustainable Development

Development that meets the needs of the present without compromising the right of future generations to fulfil their needs is termed as sustainable development.



"Earth provides enough to statisfy every man's needs, but not every man's greed."

Gandhiji



Recycling and reusing of resources as well as reducing their use are the means to sustainable development.

What to Do for Sustainable Development?

Let us work together



- Use the waste water from the kitchen for watering plants.
- OPlant trees in public places.
- Use the non-conventional energy sources such as solar energy, wind energy, etc. to the maximum.



- Ensure steps for rain water harvesting.
- Use cloth bags instead of plastic carry bags.

From today onwards I will...

- Reduce the energy consumption by
 - using fans and lights only when needed.
 - using only energy-efficient electrical equipments.
 - using LED bulbs instead of ordinary bulbs.



Reuse the following things

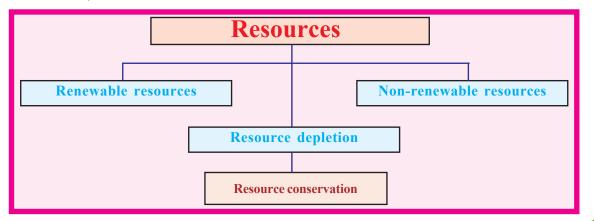
- Paper
- Bottles
- Clothes
- •
- •



Engage in activities to make people aware of the issues related to environment.

Output use resources only if essential.







- The things in nature which are useful to man are called resources.
- Resources can be classified as renewable and nonrenewable.
- Decrease in the availability and deterioration in the quality of resources due to reckless use is called resource depletion.
- Judicious and careful use of resources as well as giving enough time for the resources to replenish form the basis of resource conservation.
- Development that meets the needs of the present without compromising the right of future generations to fulfil their needs is termed as sustainable development.



The learner

- lists the natural resources by recognising that they are the things in nature useful to man.
- classifies the natural resources into renewable and nonrenewable.
- predicts the problems which may occur in the future due to unscientific and uncontrolled use of resources.
- suggests methods for resource conservation.
- engages in individual and group activities leading to sustainable development.

Let us assess

- Raghavan is a farmer practising traditional method of farming using bio manure, ploughing the field using cattle, etc. List out the types of natural resources Raghavan makes use of. Also define natural resource.
- Categorise the following natural resources into biotic and abiotic.

Forest, sunlight, fish, wind, cattle, water

- Given below are the features of two motor cars. Identify the characteristics of each and categorise in the following format.
 - CarA Works on solar energy
 - Car B Works on petrol

Characteristics:

- 1. Does not cause atmospheric pollution
- 2. Uses non-renewable resource as fuel
- 3. Causes increase in the level of carbon dioxide in the atmosphere.
- 4. This kind of cars are largely in use
- 5. Such cars are not used much
- 6. Uses renewable resource as fuel

CarA	Car B
•	•
•	•
•	•

Which of these cars is nature friendly? Substantiate your answer.

Make inferences by analysing the statement 'We have loaned the resources from the future generations'. Also suggest any five measures for resource conservation.



- Make a list of endangered species of plants and animals and exhibit it in your class room.
- Conduct a poster exhibition in connection with the World Environment Day and the Earth Day.
- Plant saplings in the available space in your school compound and take care of them.

Self assessment					
	Completely	Partially	Need improvement		
Can identify the natural resources					
Can classify resources as renewable and non-renewable.					
Can identify the activities leading to resource depletion.					
Can explain the importance of resource conservation.					
Can identify and list the ways to conserve resources.					
Can explain the importance of sustainable development.					