

Block

2

TEACHING-LEARNING PROCESS: SPECIFIC TO SUBJECT AREAS

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COURSE: BES-142 Pedagogy of Social Science

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- Unit 3 Teaching Learning Strategies and Learning resources in Social Sciences
- Unit 4 Planning and organizing Teaching Learning experiences
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BLOCK 2 TEACHING-LEARNING PROCESS: SPECIFIC TO SUBJECT AREAS

Introduction to the Block

As you know, Block 1 dealt with pedagogic principles associated with teaching of social sciences. Block 2 focuses on teaching-learning process specific to four subject areas of social sciences, namely, History, Political Science, Geography and Economics.

Unit 6 deals with teaching-learning process in history. The unit begins with the meaning of history as a discipline of knowledge, nature and scope of history. Relationship of history with other social sciences, namely, geography, political science, economics, and other subjects like, literature, science, and statistics has been explained. Different approaches to teaching history such as: dialectical, scientific, biographical, nationalist, post-modernist, and dramatization have been discussed. In the end, various resources to teaching and learning of history have been elaborated.

Unit 7 focuses on teaching-learning process in political science. In the beginning, we explain the meaning, nature and scope of political science as a discipline of knowledge. Aims and objectives of teaching political science have been stated. Various teaching-learning methods to teach political science like lecture, discussion, debate seminar, panel discussion, individual and group projects have been described. The unit ends with a detailed discussion on several teaching-learning resources, which can be used to teach political science.

Unit 8 is devoted to teaching-learning process in geography. At the outset, meaning, nature, and scope of geography as a discipline are explained. The aims and objectives of teaching geography at the secondary level are presented. Various teaching-learning methods like questioning, demonstration, peer learning, games, simulation, problem-solving, and field visits are described. The last section of the unit discusses various teaching-learning resources to teach geography.

Unit 9 deals with teaching-learning process in economics. In the beginning, meaning, nature, and scope of economics as a discipline have been explained. Curricular objectives of teaching have been spelt out. Various teaching-learning methods like lectures, discussions, problem-based learning, simulation, concept maps, projects, data analysis etc. have been described. Different teaching-learning resources to teach economics have been discussed in the end.

UNIT 6 TEACHING-LEARNING PROCESS IN HISTORY

Structure

- 6.1 Introduction
- 6.2 Objectives
- 6.3 Meaning of History as a Discipline of knowledge
 - 6.3.1 Nature of History
 - 6.3.2 Scope of History
- 6.4 Relationship of History with other Social Sciences and Subjects
- 6.5 Aims and Objectives of Teaching History
- 6.6 Approaches to Teaching of History
 - 6.6.1 Dialectical approach
 - 6.6.2 Scientific approach
 - 6.6.3 Biographical approach
 - 6.6.4 Nationalist approach
 - 6.6.5 Post- modern approach
 - 6.6.6 Dramatization
- 6.7 Resources for Teaching and Learning of History
- 6.8 Let Us Sum Up
- 6.9 References and Suggested Readings
- 6.10 Answers to Check Your Progress

6.1 INTRODUCTION

While teaching history in a classroom, it is necessary to understand the nature and scope of history and how it is related with other disciplines in an integrated manner. History provides a rich ground for correlation with other subjects. As a teacher, you need to have a clear idea about the nature of history and how it can be correlated with other subjects. It gives a good insight into the present and tells the experiences of the past in dealing with the present problems. Teaching of history for the student teachers is important because it helps them to understand how families, societies, institutions and countries evolved, great people and their deeds, citizenship, development of science and technology, etc. It is the responsibility of the teachers to mould the future citizens in which learning of history plays a major role because it is the basis of all areas of human life- political, social, economic, cultural religious and social life. In this Unit, we discuss the meaning of history, its relationship with other social sciences, aims and objectives of teaching history, various approaches to teaching history and learning resources for teaching history.

6.2 OBJECTIVES

After going through this Unit, you would be able to:

- explain the meaning of history;

- discuss the relationship of history with other Social Sciences and its relationship with natural sciences;
- state the aims and objectives of teaching history;
- discuss various approaches to teaching of history; and
- describe use of different learning resources for teaching history and making history classes interesting.

6.3 MEANING OF HISTORY AS A DISCIPLINE OF KNOWLEDGE

The word 'History' is of Greek origin which means 'information' or 'an enquiry designed to elicit truth'. The term 'history' is used to indicate the process of human development through the ages. Hence, history means 'man- his story'. So we can say that it is the story of what human beings have done, said and what they have thought. It is the story of what happened in the past. In one sense, we can say that it is a parent discipline from which many special fields of studies have sprung. Let us examine some definitions given by scholars of history.

Definitions of History

The following definitions indicate that history has been defined differently by different historians and scholars.

H. G. Wells	Human history is in essence a history of ideas
Burckhardt	History is the record of what one age finds worthy of note in another
Henry Johnson	History, in its broadest sense, is everything that ever happened
E. H. Carr	History is a continuous process of interaction between the historian and his facts, an unending dialogue between the present and the past
Tagore	There is only one history- the history of man
Jawaharlal Nehru	History is the story of man's struggle through the ages against nature and the elements; against wild beasts and the jungle and some of his own kind who have tried to keep him down and to exploit him for their own world.

It is evident from the above definitions that there is no universally accepted definition of history. However, when we analyse the definitions, we can summarise that history includes whatever human beings have experienced in the past, i.e., their past deeds, ideas, struggles, arts, crafts, inventions, etc.

Activity 1

Go through various definitions of history from different sources and find out how the definitions change according to the developments in history and philosophy of the scholars.

Check Your Progress 1

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

1) Explain the meaning of history.

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6.3.1 Nature of History as a Discipline of Knowledge

The following major features characterize the nature of History as a discipline of knowledge (Kochhar, 1979)

i) A study of the present in the light of the past

The root of the present lies in the past. History helps us understand how the society has come to its present shape. We are able to understand, analyse and interpret the causes of events that had happened throughout ages. It helps us understand the reasons of present happenings and also frame general laws for the better functioning of the society in future.

ii) History is concerned with study of human beings in relation to time

One of the essences of history is the study of human beings in relation to time. The world changes according to the changes in time. The ideas or institutions change as time passes. So we know from the history that nothing is permanent in this world. In another sense, we can say that history has no meaning in a world which is static. We can summarize that human history is the process of human development in relation to time.

iii) History is concerned with study of human beings in relation to space

History depicts human being's dynamic interaction with physical and geographical environments that leads to various trends in political, social, economical and cultural activities and achievements.

iv) History explains the present

One of the main tasks of history is to explain the present by understanding the past and how it has evolved. By analyzing the historical data of the past events, we find out the causes of the present events. This helps us understand and shape the present in a better way.

v) History is objective record of happenings

Historians collect data from original sources, especially from primary sources that enable them to interpret past in objective way. By understanding past happenings in a better a way, we are able to take right decisions.

vi) History is a dialogue between the events of the past and progressive changes in future

Historians like to interpret the past based on progressive emergence of new goals, through selection of relevant and significant events. Earlier the interpretation of history was based on human beings' struggle for getting constitutional and political rights; but later on the trend was changed to interpret the history based on economic and social events. It represented more progressive and advanced trends in the interpretation of history.

vii) History is the story of the growth of human consciousness, both in its individual and collective aspects

History is the story of human consciousness from Stone Age to the 21st century digital era. It doesn't follow a strict chronology but it is sequential and relevant.

viii) Continuity and coherence are the necessary requisites of history

All historical events are interconnected and interdependent. No event is an isolated one and it can't occur out of vacuum. History carries the progress of human beings from generation to generation and it is the essence of history.

ix) History is comprehensive in nature

The modern concept of history is that it is not confined to a particular period or a country or a nation. It covers all aspects of human life- political, social, religious, economic, religious, aesthetic, etc. in a comprehensive manner.

6.3.2 Scope of History as a Discipline of Knowledge

It is very difficult to confine history to a particular boundary. It is all embracing, comprehensive subject without a limited boundary. The scope of the subject includes almost all spheres of human life like history of art, history of physics, history of chemistry, history of religion, history of mathematics, history of civilization, history of geography, etc. It points out that the scope of history covers history of any and every social, physical and natural science that we are engaged with. During the early periods, history was limited to local saga, but during the course of human evolution it becomes the universal history of mankind that depicts all the activities and achievements of human beings in all fields viz., political, economic, social, religious, artistic, technological, etc. It spreads its scope from local level to the international level. Also, it starts with the past, explains the present and predict the future actions and happenings.

Check Your Progress 2

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

2) How is history related to space and time?

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3) Briefly explain the scope of history? Explain, with examples, how it covers all aspects of human life.

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6.4 RELATIONSHIP OF HISTORY WITH OTHER SOCIAL SCIENCES AND SUBJECTS

Many historians and scholars agree that history is the heart of social sciences. It has close relationships with other subjects of social sciences, literature, science and statistics. Let us study the relationship of history with other subjects.

Geography

History relates to time and geography to space. History studies people living in different times, whereas geography studies people living in different places. Geography provides the stage for human being to play his/her part. History becomes incomplete without reference to the space. Historians depend upon the geographical background to study the human thoughts and actions because they are closely related to the place where they live. History always raises the questions 'why'. Geography is concerned with 'where'.

Many geographical features like rivers, mountains, sea, climate, mineral resources, etc. have crucial influence on the shaping of the course of history. For example. Indus valley civilisation developed on the banks of Indus River. The broken coastlines of Japan, Greece, and Great Britain forced them to improve their naval strength, which resulted in their empire building activities.

Political Science

Prof. Seeley says that "history without political science has no fruit and political science without history has no root". Historians trace the history of the political process by learning political principles, rules, regulations, rights and duties, executive, legislative, administrative functions, beaurocracy, etc. All these come under history. Diplomatic history is a specialised branch of political history that deals with the principles of international relations. Political science is a part of historical studies that describe the administrative set up of a country.

Sultan remarks that "History is really the past tense of a subject of which political science is the present". We know that in our school history books most of the portions cover different rulers and their governance. Political science is the science of citizenship that describes local, national and international affairs in the past and the present. History includes all these aspects. Political revolutions, ideas and politicians have contributed to shaping of history.

Economics

A historian should possess basic knowledge about economics because most of the activities of human beings in society are closely related to economic matters. For clear understanding of history of any period we should know the economic history of that period. Economic activities such as arts, crafts, business, trade, commerce, taxes, land revenues, etc. have a prominent position in history. It would be difficult to write history without a thorough understanding of economics.

Economics is a study of wealth, which deals mainly with production, consumption and exchange. History describes social nature of all the economic activities of human beings. History of economic activities of human beings in the past helps in framing economic policies and formulation and verification of various economic laws and theories. All the major economic changes in the world like green revolution, stock markets, globalisation, economic depression, etc. have profound influence on historical changes.

Sociology

History and sociology are closely interrelated with each other because both study human beings in society. At the initial stage, sociology depended on history for generating new knowledge. History was also enriched by the synthesis of ideas produced by sociologists. Sociology helps history in studying social dynamics which deals with social change, development of social processes and social causation.

Literature

History is the record of activities of human beings. On the other hand, literature is the records of emotions, feelings, imaginations, and thoughts. Historians use literature to report history. History represents fact and literature takes it to an artistic form.

Science

In order to understand history of any nation, we should understand the history of science. History of human beings on the earth becomes incomplete if we don't learn the chain of discoveries, explorations and inventions made by human beings. Observations, experiences, discoveries and inventions by human beings have profound influence on history. Biology, which deals with hereditary and environment, helps history understand the human beings, their evolution and wide range of societies they have created.

Statistics

Writing of history at present era is influenced by statistical data. Historians, nowadays, quote exact percentage of the people and other numerical values because computers help them in processing enormous data and arrive at valid conclusion in a short span of time.

Check Your Progress 3

- Note:** a) Write your answers in the space given below.
b) Compare them with those given at the end of the unit.
- 4) What are the relationships between history and geography?

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6.5 AIMS AND OBJECTIVES OF TEACHING HISTORY

The following are the aims and objectives of teaching history at school level (Kochhar, 1979).

- **To promote self-understanding**

History should be taught to students to understand and place themselves in context. The person, who does not understand himself/herself, will not be a well-balanced human being. Every individual has a heritage which is a combination of racial, national, family and individual traditions. Without understanding his/her past, a person becomes stranger to himself/herself. Similarly, without understanding our past, we can't understand and interpret the present history. Students cannot understand the importance of sacrifice for the nation unless they are taught the sacrifice made by our freedom fighters for the independence of our country. History provides useful and critical insight regarding our past achievements and deeds in almost all areas like political social, economic, religion, etc. that help us understand the present. The information provided by history regarding world's great men and women, great civilization, great inventions, etc. promote self-understanding.

- **To provide proper concepts of time, space and society**

History should be taught to provide students the concepts of time, space, and society and their relationships that link the present with the past, the local with the distant, the personal life with the national life, lives and cultures of men and women with those elsewhere in time and space.

The causes of the present happenings lie in the past. Without understanding the past, we can't explain the present happening. A real understanding of the present requires knowledge of time, space and society. In order to make our students familiar with the present and provide directions for the future, teaching of history is essential.

- **To strengthen intellectual abilities of learners**

Teaching of history strengthens the intellectual abilities of students by providing them opportunities for rational thinking. It provides students the

opportunity to study the past and understand that the human activities are unpredictable and complex. Students study the social activities of human beings that stress for objective analysis and framing valuable conclusions. When we address important issues and concerns, we tend to consider only the present and the future. But history provides the third dimension that is understanding of the past. History stresses the need for deep thinking to find out the relation of present happenings with the past. It helps to avoid superficial thinking.

- **To teach tolerance**

The history needs to be taught to develop tolerance among students. They learn tolerance with different faiths, loyalties, cultures and ideas and ideals.

- **To enable the students to assess the values and achievements of their own age**

It provides the students insight to assess the values and achievements of their own age. They get enlightened about the problems of modern period. Teaching of history exposes false, errors, prejudices, etc. of the past. Thus, it is a teaching of philosophy by examples through the ages. History also tells the stories of great men, kings, and thinkers, which help students to assess their own values and achievements.

- **To cultivate positive outlook**

Teaching of history brings to light factors which govern the course of human affairs and also show that the actual course of past events may be more accurate measure of what is possible for new and better future. The teaching of history provides ample opportunities for stimulation of thoughts, proper judgements, development of discriminative power and also develops scientific attitude among students.

- **To address controversial issues**

It provides students opportunities to address controversial issues of the society. Students get chance for free discussions, look for facts, search for truth and solve the issues intellectually by arriving at valid conclusions.

- **To help resolve our contemporary social and individual problems**

The important aim of history is to solve the present social and individual problems related to commerce, foreign affairs, religion, politics, etc. Students get the opportunities to study the problems and make informed judgements.

- **To foster national feeling**

Teaching of history helps in fostering national feeling among students. It inculcates in them patriotism and develops them into responsible and active citizens.

- **To foster international understanding**

The teaching of history mitigates the prejudices existing among nations and points out the need for interdependence among nations. It fosters international understanding among the nations of the world.

Activity No.2

Collect the information regarding the aims and objectives of teaching history suggested by various education commissions and committees after independence.

Check Your Progress 4

- Note:** a) Write your answers in the space given below.
b) Compare them with those given at the end of the unit.
5) Write any four aims and objectives teaching history.

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6.6 APPROACHES TO TEACHING OF HISTORY

6.6.1 Dialectical Approach

It is also called as Socratic *Method*. The method is based on dialogue between two or more persons who may hold differing views, but try to pursue the truth by seeking agreement with one another. Socrates believed that we can reach truth or produce knowledge by means of skillful questioning. Socrates provided instructions by using leading and clever questions ((Umar Farooq, 2013).

Steps

- 1) Prepare and arrange questions in a logical sequence.
- 2) Ask questions in the logical sequence to arouse curiosity among students.
- 3) Frame new questions by linking with learners' response.

Advantages

- 1) It provides the teachers both understanding of the abilities and interest of students while asking questions.
- 2) It ensures involvement of students in the learning process.
- 3) It ensures cognitive development and brings knowledge at conscious level.
- 4) The classroom becomes lively because more verbal interactions take place between teacher and students.

Disadvantages

- 1) Difficult to frame good questions and arrange them in logical sequence.
- 2) It is difficult to cover all social science contents by using this approach.
- 3) The teachers expect structured answers from students, hence no room for imagination.

Suggestions

- 1) It can be used along with other methods.
- 2) Questions should be framed in clear language.
- 3) Questions should be distributed to the whole class evenly.

6.6.2 Biographical Approach

Biographical approach considers history as a history of great events, great men, or individuals. Through biographical approach, instruction in history is imparted by narrating the deeds of truly great persons.

Biographies are one of the best medium through which students can learn history. Students naturally have interest in great personalities of the past and try to make them acquainted with their noble characters. Thus, biographical approach motivates them to get inspired and become like these great personalities.

However, this approach does have some drawbacks. It is based on undemocratic distinctions between great and small, the high and the low born. There is possibility of so many things in the past being left out if the history is only about great personalities. This approach tends to develop hero-worship. It may provide a limited growth to student's personality. It is also subjective in nature.

Therefore, in order to make the biographical method more useful, it should be taken into consideration that personalities be grouped around an outstanding event or movement rather than events around personalities. More than one person should be selected for the study as a single person cannot represent his/her age fully. The idea of hero-worship should be avoided. The prominent aim of biographical approach is to acquaint students with the characteristics of personalities being taught to students. The biographical approach should be made a community approach by making frequent local references. Biographical approach will serve as an efficient instructional approach at the later stages to supplement and illuminate the narrative treatment.

6.6.3 Scientific Approach to Teaching History

It is an approach to investigating phenomena and acquiring new knowledge, as well as connecting and integrating with previous knowledge. In this approach the historian gathers observable, empirical, and measurable evidences or data by using his/her reasoning skill. It is the duty of the teacher to present social problems in front of the students to inquire about its root causes. After thorough analysis, students reach valid conclusions or right decisions. In order to reconstruct history, we should study the sources of history by using observation, analysis and interpretation. By using this approach students get opportunity to treat history content as a history data. They can examine it scientifically, draw inferences, present and make arguments in favour of or against the textbook content

Characteristics of scientific method

- Science is characterised by empirical procedures, precise definitions and objective data collection.
- Findings can be reproduced.
- The approach to knowledge is systematic, and
- Processes involve explanations, understanding and predictions.

6.6.4 Postmodernist Approach

This approach thinks that real truth does not exist or is not knowable. Postmodernists give emphasis to “constructs” and “perspectives” rather than “truth” and “knowledge”. The concept of postmodern education is based on the assumption that what people think to be knowledge really consists of mere “constructs”, not “truth.” It gives emphasis to constructivism and stresses that all knowledge is invented or “constructed” in the minds of people. The ideas teachers teach and students learn are not “reality,” but human constructions. We create knowledge, ideas and language because they are useful not because of “true”. They argue that reality is a story because it exists in the minds of people who perceive it.

The purpose of education is changed from teaching academic knowledge and skills to facilitating a learning environment where students construct their own knowledge. Teachers’ role also changed from a knowledge giver to a stage setter and a facilitator. Postmodernists reduce the study of history to “perspectives of history.” There are different perspectives of history. They emphasise discovery learning, group projects and other social settings for learning history.

6.6.5 Nationalist Approach

Nationalist approach to history was prominent during the Nineteenth century. Most of the historians during the period were just press agents of the politicians. During the period, nationalist view was used as a force for social, economic, and political oppression as well as emancipation. Europeans used nationalism as a means for imperialism and colonial countries as anti-imperialism. After the First World War, nationalism helped European’s in imperial expansion and oppression but after the Second World War, it helped the Asians and Africans as a moral force in anti-imperialist movements. During that period the history was written from a purely nationalist point of view. The historians tried to inculcate patriotic feelings, emphasize citizenship, avenging national humiliations and redeeming national honour.

6.6.6 Dramatisation

Dramatisation means reconstruction of some events or situations, past or present into action and life. It provides scope for expression and imagination, sharpens learning, appeals to emotions and removes complexes. History is a subject which deals with events, human ideas and sentiments which have no material shape. It is impossible to translate them into audio- visual symbols through models or puppets. Dramatisation can best represent those concepts and movements. It is one of the most effective devices that teacher of history can use to provide reality and vividness to his/her instruction in history.

Dramatisation means reconstruction of significant historical experiences in the past. It is the attempt to transcend the barrier of time and place and relive the experience concerned. A student dramatising a character has to ‘feel’ like the character and to a degree must become the character. Thus, dramatisation makes teaching meaningful, lively and a joyous activity.

There are different kinds of dramatisation such as:

- **The Play:** This is performed by school children or adults using proper costumes and stage setting.
- **The Pageant:** Importance is given to setting and action and less to speed. It has no place in the classroom as it needs a great deal of time, energy and equipment.
- **The Pantomime:** Participants express themselves through bodily actions only usually to the accompaniment of music. It can be performed in the classroom in ordinary dress. It is particularly valuable for shy children.
- **The Tableau:** It is an act without words and very effective in representing an emotional theme. Attention is paid towards costume and scenery. Well prepared and presented occasionally Tableau can be of much value as an aid to teaching.
- **Puppetry:** It presents ideas with extreme simplicity without elaborate scenery or costume, yet quite effectively. It can be suited to the types of drama where human actors, adaptations of classic plays, etc cannot easily be presented.

Some of the advantages of dramatisation are as follows:

- 1) It increases student's motivation, participation, confidence and fluency in communication through the body language.
- 2) It creates interest and exercise initiative and originality of the children.
- 3) It fosters verbal and non-verbal communications.
- 4) It extends the emotional range of expressions.
- 5) It develops creativity and spontaneity.
- 6) It develops student's performance skills.

Some of the disadvantages are as follows:

- 1) It is sometimes difficult to monitor both physically and verbally.
- 2) The acts are artificial and sometimes irrelevant to the learner's need.

Some suggestions which would be useful for performing dramatisation effectively are as follows:

- 1) Relevant and meaningful themes should be chosen.
- 2) The teacher should not dominate the show.
- 3) Characters should be chosen as appropriately as possible.
- 4) The emphasis should be placed on action, gestures, expression, voice and interpretation rather than on clothes, scenery and setting.
- 5) Dramatisation must be properly followed up with discussion.

Check Your Progress 5

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

6) What is role of a history teacher according to postmodernist approach?

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6.7 RESOURCES FOR TEACHING AND LEARNING OF HISTORY

Textbook

Textbook is a specially written book which contains selective and systematic knowledge. It is not a bare statement of knowledge but is armed with various teaching- learning devices to fulfil the desired instructional role. According to Bacon Paul, a textbook is a “book designed for classroom use, carefully prepared by experts in the field and equipped with the usual teaching devices”.

There are three different types of history textbooks listed by Johnson:

- i) Precise Textbook- it represents a skeleton or framework of facts with essential explanations, in-text questions and activities.
- ii) Manuels- these develop the outline but leave some room for further development.

The function of the history textbook is that in the lower classes it can be relied on for essential information, so organised as to show order and continuity and so presented as to be clear, interesting and attractive; and in the senior classes, it should contain well- arranged comprehensive knowledge and should expand its scope and size to meet the changing concept of what is considered educationally sound and desirable. Apart from textbooks, there are supplementary readers in history. They contain important information and facts which could not be given in the textbooks.

Good textbooks are indispensable for the teaching-learning of history for various reasons:

- 1) To provide both teachers and students good teaching-learning material.
- 2) To give the minimum essential knowledge at one place.
- 3) To help students in self-learning.
- 4) To provide teachers and students logical and comprehensive learning material
- 5) To ensure intellectual rapprochement of teachers and students.

A good history textbook must satisfy the following criteria.

- 1) It should help in achieving the objectives of teaching history mentioned earlier.
- 2) It should be child-centred.
- 3) The language of the textbook should be suitable for the age and level of students.
- 4) It should be well- illustrated.
- 5) It should be simple, interesting and attractive enough to take the form of a self- study reader.
- 6) It should open up various avenues of thought and study.

The uses of history textbooks and supplementary readers should be to achieve the objective of teaching history. It should stimulate student's historical imagination to know more of history and to rationalise casual relationships pertaining to different historical events. If history textbooks are used effectively, they not only make instruction effective in the class but also give history teaching and learning a new meaning.

Museum

Museum is a place that provides information, education and enjoyment. Museums which preserve historical and cultural objects impart wholesome education at all levels and provide new impetus to teaching methods. Schools can have a history museum with sections on Local history, National history, and International history. The section on Local history can contain local relics like statues of kings and rulers, carvings on bricks or stones, pottery pieces, ancient books, ancient coins, costumes, etc. It stimulates interest in the students to study history with a sense of reality. The section on National history can be built up with the help of models according to the topic as it may not be possible for each school to get original relics. Similarly, flags, world history, curios from different countries, stamps, coins, dolls, etc. can be kept in the section on International history. By seeing the relics of the past, students can realise that history deals with facts. Therefore, efforts should be made to find the real objects as far as possible. There should also be models, photographs, diagrams, charts, etc. However, the temptation to show too much must be cautiously avoided. Names of teachers and students responsible for collection of items, dates, purposes, utilization, expense and any other necessary information must be maintained properly. The relics collected should be presented in chronological order with proper titles and annotations. A good museum must have a collection of useful items. It must have a dynamic image and role to play to cater to the diverse needs of the students of different classes. Collections of ancient coins, historical relics such as ancient paintings, pictures, sculptural works, edicts, etc. collected by the students and history teacher should be exhibited suitably in the history classroom. Museum is an important link of the new environment with the older world in which its own institutions, thoughts and modes of life had their origin.

Maps

Maps are flat representations of the earth's surface which convey information by means of lines, symbols, words and colours. Maps are the universally accepted symbol for the presentation of the concept of space. Every happening takes place

in a definite place and in a fixed time. The place of occurrence has some influence over the course of happening, hence proper use of maps can explain adequately about the incident. Thus, a map is almost indispensable in most history lessons.

Different types of maps can be used to make history teaching interesting.

Relief maps: it may be considered as a model of the geographical features of a place.

Flat maps: it includes political, physical, population, economic, rainfall, temperature, soil and vegetation, and roads.

Pictorial maps: pictures, dots or other symbols or drawings are used to show location of important data or relationships.

Maps can be made interesting and important depending on how we use them. They should not be overcrowded. It is desirable to make the outline of the maps and develop the contents as the lesson proceeds. Maps should be unusual enough to arouse student interest. Junior classes should be given printed outlines for filling in details while senior classes could draw their own maps. Maps should be both accurate and up-to-date.

Charts

Charts are combinations of graphic and pictorial media designed for the orderly and logical visualising of relationship between key facts and ideas. The main function of the charts is always to show relationships such as comparisons, developments, processes, classification organisation, etc. Charts should be simple in their form and design. They should be accurate. They should be the brief summary of some historical events.

Most commonly used charts in history are:

- i) Genealogy charts: These charts are used to represent the growth and development of an empire or dynasty.
- ii) Flow charts: These are used to show sequence and the functional relationships.
- iii) Chronology charts: They provide a chronological framework within which events and development may be recorded.
- iv) Tabulation charts: They present the historical data in a tabular form. They enable students to gain a comprehensive view of the facts at sight.

Films

Films have instant appeal as they depict motion and motion implies continuity. In the teaching of history, films providing information, or films dramatising an event, episode or the life of an individual can be used. Through the medium of films, one can rebuild homes, castles, farms, etc. Skilful cameraman can photograph the carefully planned enactment of historic events that have present-day significance. Films heighten reality by individualising experiences of the outside world and promote a greater understanding of abstract relationships and concepts into concrete. For effective use of films to achieve learning objectives, teacher should know what they are about, how they fit into the contents being taught. He/she should first view them before presenting to students. He/she should prepare notes on them and carefully plan how best they can be used.

There are various types of films which can be used in the classroom for teaching history.

- i) Films explaining a process
- ii) Films giving information.
- iii) Films demonstrating a skill.
- iv) Films dramatizing an event, episode or the life of an individual.

Besides, there are educational films such as:

- i) Educational films dealing with a single unit of exposition within a duration of ten to fifteen minutes.
- ii) Documentary films depicting contents in cinematically interesting ways. They present stories in terms of human beings and human interests. They may be used to illustrate a subject, generally to introduce or revise it.
- iii) Short sentence films are used to illustrate single phenomenon.
- iv) News reels are presented in simple descriptive forms about the events of the day without any bias. These are very useful in informing the pupils about the current events.
- v) Regular films based on historical themes/events.

There are a few limitations to the use of films. They require special skill and knowledge to use projection equipment. They do not by themselves enable students to participate actively in the learning experience. Teacher needs to motivate students to view educational films on history.

Visit to Historical Places/ Field Trips

Field trips to historical places can provide unparalleled learning experiences, particularly, in the teaching of history. They can provide first hand observation and new information to enable students to understand the history, which is not merely a story, but is very useful for developing appreciation of architecture, sculpture, painting, etc. There can be various kinds of trips such as:

- i) Trips within the school or trips within a walking distance.
- ii) Longer trips to historical spots in the community.
- iii) Day trips to a state capital, college, historical spot, etc.
- iv) Trips during vacations for a week or so to Delhi, Mumbai, Kolkata, Ajanta or Ellora caves or other places of historical interest.

There are certain points that need to be kept in mind while selecting a place for a trip. A trip should be related to the topics under discussion in the class, as a follow –up to the topics being taught or as a motivation for new topics. It should provide something that can be learnt better by direct experience than by textbooks, films and other methods. The distance should not be too long and the expenses should also be low. It must have the approval of parents and school administration. It should give students experience that they cannot easily have alone or in small groups or with parents.

In order to make the field trips useful, they should be well-planned, well conducted and well followed-up. The teacher should make a survey of the local possibilities in regard to original contents in history. Students should be well prepared with an idea of what to expect and how the new information will be useful. Every detail of the trips should be carefully and completely worked out beforehand. They should be carefully supervised so as to achieve learning objectives. The experiences from the trip should be systematised and correlated to the history lesson. Each trip should be carefully evaluated for future guidance as well. Discussions regarding the trips or a variety of activities like diaries, photos, bulletin boards, articles in the school magazine, thank you letters, etc. can be organized as follow –up programmes.

Some of the possibilities of direct study of historical materials are monuments, battlefields, sites of historical events, old forts, tombs, memorials, places of worship, temples, mosques, museums, old houses with relics of historical interest such as weapons, utensils, costumes, paintings, culture, old manuscripts, art galleries, educational centres and ruins of capitals, sites of excavations and administrative and legislative centres with records of historical decisions and happenings.

Archives

An archive is a place where people can go to gather first hand facts, data, and evidence from letters, reports, notes, memos, photographs, and other primary sources. Archives provide a classroom where students from lower grade through college can study and learn history by using manuscripts, photographs, oral history transcripts, audiovisual tapes, and other archival material. Using archives in teaching requires cooperation between the archivist and the teacher. The archivist needs an awareness of the goals and content of the course being offered. The teacher must be informed of the documents and items available in local archives, historical societies, or museums that are relevant to the course. Teaching students through archives would be difficult; however, it is important to involve them through some presentations. Frequent class tours and field trips to local archives, historical societies or museums are an effective way for using archives successfully. Lectures through archive would make the learning more meaningful rather than imparted inside the classroom. Visual images and sound recordings hold the attention of students and leave a lasting impression. Therefore, teachers and archivist can use photographs and tapes that narrate a story or particular historical events. Providing students an opportunity to prepare a brief write-up about the presentations or some aspects of the archives is an additional way to reflect on the relationship between archives and history.

Documentary

The term document is generally associated with written or printed record as an evidence of historical facts. In this method the old records are depicted before students as documentary proofs or evidences. They can be presented as cinema or T.V films showing some of the human or social activities in historical times. The important documents that can be used for teaching of history includes: letters, diaries, constitutions, proclamations, court decisions, official minutes, certificates, magazines, newspapers, transcriptions, wills, autobiographies, etc. Documentary evidences provide the exact picture of historical events.

Timelines

Timelines are used to help students keep track of key events in history. Students get real picture about when events occurred and enable them to arrange the events in proper sequence. We have given an example of timeline in Unit-3 of Bkck-1 of this course.

Timelines can be used for the following instructional purposes

- making the sequence of events in history.
- stressing the most important events in history.
- telling the story of events in a logical sequence.

If the students prepare the timeline of a history unit before the discussion of the unit, they understand the unit and they can also clearly understand the cause and effect of the events. They can prepare timelines in their classroom by using a bulletin board.

Artifacts

Artifacts are objects made by human beings, especially with a view to using them at a later stage. It may be a handmade object, a tool, or the remains of one, as a shard of pottery, characteristic of an earlier time or cultural stage, especially such an object found at an archaeological excavation.

The manmade objects or realia include food, clothing and adornment, tools and weapons, housing, transportation, personal possessions, household items, fine arts, and objects from everyday life. By using artifacts, students get chance for inquiry and investigation. If you present artifacts in an interesting way, students get chance to understand things clearly, observe facts, express their observations, etc.

Artifacts are representative of cultures, historical eras, and geographic location. They make history learning meaningful because children have opportunities to construct understanding and build knowledge. And students consider the practical use and personal value of objects over time and within particular cultures. Learning of history becomes challenging because students get opportunity for inquiry, collaborative learning, risk taking, thinking fluently and flexibly, and arriving at valuable solutions. Students become active by engaging in hands-on explorations.

Cartoons

Cartoons are ideas expressed in symbolical or pictorial forms rather than in words. They are based on an event or a person. They can be considered as a medium of expression because they can be used to teach concepts in a meaningful way. They are also a medium of expression through which students get opportunity to express their ideas and concepts to others.

Activity No.3.

List out various resources available in your local area for teaching of history for the secondary classes

Check Your Progress 6

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

7) Mention types of charts used in teaching of history?

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8) What are the uses of timelines?

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6.8 LET US SUM UP

The main thrust of this unit is to acquaint you with teaching-learning process in history. We started the unit by explaining the meaning of history. Studying history helps students to understand their past, analyse the present and also predict the future. It helps them to analyse social problems and challenges in the right direction that mould them to become an active citizen. We discussed the nature, aims and objectives of teaching history. Different approaches and methods to teaching history, namely, dialectical method, biographical method, scientific approach, post-modern approach, etc. were discussed. Different learning resources like textbooks, maps, charts, museum, time-lines, films, cartoons, etc. were also discussed.

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6.10 ANSWER TO CHECK YOUR PROGRESS

- 1) History includes whatever human beings have experienced in the past, i.e., their past deeds, ideas, struggles, arts, crafts, inventions, etc.
- 2) History is the human being in relation to time. We know history of how human beings have developed during different periods of time. We can summarize that human history is the process of human development in relation to time. Similarly, History depicts human being's dynamic interaction with physical and geographical space that leads to various trends in political, social, economic and cultural activities and achievements.
- 3) The scope of history includes almost all spheres of human life like history of art, history of physics, history of chemistry, history of religion, history of mathematics, history of civilization, history of geography, etc.
- 4)
 - i) History relates to time whereas geography to space.
 - ii) History studies people living in different times whereas geography studies people living in different places.
 - iii) History always raises the questions 'why', whereas geography is concerned with 'where'.
- 5)
 - i) To provide proper concepts of time, space and society
 - ii) To strengthen intellectual abilities of learners
 - iii) To cultivate positive outlook
 - iv) To help resolve contemporary social and individual problems.
- 6) According to postmodernists, the role of history teacher role has changed from a knowledge giver to a stage setter and a facilitator.
- 7) The charts used in teaching of history are genealogy charts, flow charts, chronology charts, and tabulation charts.
- 8) The uses of timelines are the following:
 - i) Making the sequence of events in history.
 - ii) Stressing the most important events in history.
 - iii) Telling the story of events in a logical sequence.

UNIT 7 TEACHING-LEARNING PROCESS IN POLITICAL SCIENCE

Structure

- 7.1 Introduction
- 7.2 Objectives
- 7.3 Meaning, Nature and Scope of Political Science as a Discipline of Knowledge
 - 7.3.1 Meaning of Political Science
 - 7.3.2 Nature and Scope of Political Science
- 7.4 Aims and Objectives of Teaching Political Science
 - 7.4.1 Objectives of Teaching Political Science
- 7.5 Teaching-Learning Methods in Political Science
 - 7.5.1 Lecture Method
 - 7.5.2 Discussion Method
 - 7.5.3 Debate as a Method of Teaching
 - 7.5.4 Seminar Method
 - 7.5.5 Panel Discussion
 - 7.5.6 Individual and Group Projects
- 7.7 Teaching-Learning Resources
 - 7.6.1 Constitution of India
 - 7.6.2 Acts of Parliament and Legislatures
 - 7.6.3 Charts
 - 7.6.4 Atlas, Maps(Political) and Globe
 - 7.6.5 Newspapers
 - 7.6.6 Magazines
 - 7.6.7 Movies
 - 7.6.8 A-V Programmes, Internet and Multimedia
- 7.7 Let Us Sum Up
- 7.8 References and Suggested Readings
- 7.9 Answers to Check Your Progress

7.1 INTRODUCTION

The human society is a complex structure. For the existence and maintenance of human society, individuals, who are a part of it, are required to be aware of its basic elements and its functioning. In order to maintain the essence of a particular society, individuals are also required to follow certain rules and regulations and submit to an authority which can be trusted. The subject of Political Science makes an individual aware of how some of the essential functions in/ of the society are performed and how people govern and are governed in the societal set-up. Not only this, there are several other aspects which fall under the domain of the discipline of Political Science which will be explained in this unit.

7.2 OBJECTIVES

After going through this unit, you will be able to:

- explain the meaning and growth of the discipline of Political Science;
- describe the scope of teaching Political Science at secondary level;
- develop a critical understanding about the aims and objectives of teaching Political Science in a Democratic Secular Country;
- discuss the need for teaching-learning of Political Science;
- describe the various teaching-learning methods in Political Science; and
- explain the role and significance of several teaching- learning resources in Political Science.

7.3 MEANING, NATURE AND SCOPE OF POLITICAL SCIENCE AS A DISCIPLINE OF KNOWLEDGE

7.3.1 Meaning of Political Science

Political Science is a social science discipline concerned with the study of the state, nation, government and politics, and policies of government. Aristotle defined it as the study of the state. It deals extensively with the theory and practice of politics, and the analysis of political systems, political behavior and political culture. Political Science intersects with other fields, including economics, law, sociology, history, anthropology, public administration, public policy, national politics, international relations, comparative politics, psychology, political organization and political theory.

Although it was codified in the 19th century, when all the social sciences were established, Political Science has ancient roots; indeed, it originated almost 2,500 years ago with the works of Plato and Aristotle. The term ‘Political Science’ is intimately related to the word “Politics”, which itself is derived from the Greek word, “Polis”, that means a city-state, the general form of political organisation in ancient Greece. The origin of political thought in the west, therefore, goes back to Greece.

Evolution of Political Science as a discipline

Politics is an ongoing process which aims at achieving the well-being of individuals in the organized society by solving their problems to the greatest extent possible. Aristotle called politics as a “master science”. For David Easton, politics is an attempt at “authoritative allocation of values”.

Robert Dahl and Harold J. Laski explains politics as a special case in the exercise of power. Michael Oakshott in his book “Political Education” attempts to define political activity as an activity in which human beings related to one another as members of a civil association think and speak about arrangements and conditions of their associations from the point of view of their desirability of the proposed changes and act in such a manner as to promote the changes.

Thus, the meaning of the word 'politics' remains unclear and is used with different meanings by different people, some political thinkers distinguish between political science as a systematic study of the theoretical aspects of political process and politics as the practical side of the social process.

Seeley says, "Political Science investigates the phenomena of Government as Political Economy deals with Wealth, Biology with life. Algebra with numbers and Geometry with space and magnitude."

David E. Apter - "Political Science as a discipline is concerned with the problem of ends" the goals of the good society, the means of governing in such manner as to realize the good of society. The activities of the ruled (the public) especially political actions personified in voting, public opinion and attitude formation and the underlying connection between society and government, its key concern power, how it is shared through participation and representation and how it is affected by growth and change constitute the discipline of Political Science.

Apparently, Political Science is not the only discipline which studies human beings living in an organized society and hence it cannot exist in isolation or in a vacuum. Political science studies political psychology of human being and this psychology and tendency is influenced by other factors, pressures and so on. which are social, economic and geographical.

Paul Janet aptly observes that Political Science is closely connected with political economy or the science of wealth; with law, either natural or positive, which occupies itself principally with the relations of citizens to one another; with history which furnishes the facts of which it has had with philosophy and morals which give to it a part of its principles.

7.3.2 Nature and Scope of Political Science

The nature of Political Science is dynamic as it includes the study of wide range of things so it keeps growing and developing. It includes not only the study of the government and the state but also the role of individuals in the state. By the term 'scope', we mean the breadth, comprehensiveness, variety and extent of the learning experiences, the utility in the real life situations, provided through the teaching of social science. The subject is important for its subject matter as well as the skills it develops among the students as a responsible citizen of the society. It ensures intelligibility and extension of experiences rather than mere verbal memorization of facts. The world is small and interdependent. What is happening in most remote areas of the globe affects us considerably. The world is united in terms of communication, transportation and fear for the future. The world is also divided in the way that unites people and nations in favor of or against an ideology, an economic alliance or a defence alliance. Obviously, one cannot be a good citizen in today's world without a general understanding of some of the major realities of the world as a whole.

Political Science includes the study of state and the nation and neither the state nor the nation can be taught in isolation. Thus, the scope of social sciences and especially Political Science is very wide because it includes the knowledge of every sphere of life as may be called social, political, economic, religious, cultural, psychological, philosophical, etc.

Political Science is, thus, not a separate and independent discipline but is only a part of the social sciences. Political Science, being a social science, is interdisciplinary by nature, which implies that it draws upon other social disciplines or branches of knowledge and thus dependent on them in various ways. It includes-

i) **Study of Cause and Effect Relationship-**

In our present day life every event or happening is the result of the efforts done in the past. Our social, economic, geographical, cultural and political conditions are the results of the human activities as well as the environmental activities of the past and the working of today will affect the conditions in the future. The chain of cause and effect will go on from decade to decade. Due to this relationship, we can call it as a science because science also relates with cause and effect as well as what is and what ought to be. In the same way with the help of social sciences, students will be able to understand the present conditions and their cause and also to predict the future of the world.

ii) **A study of Human Relationships-**

The relationship between the human beings can be studied under the following heads-

- a) People and People
- b) People and institutions
- c) People and earth
- d) People and goods

This explains that a peaceful world is based upon mutual respect and understanding the relationships between people and people, between people and institutions. The goals of teaching Political Science are to integrate school and society by taking an active role in social institutions, and to reveal pattern of behavior indicating democracy as a way of life such as accepting and valuing others.

iii) **Study of human beings in their surroundings-**

Social Sciences deal with the study of human beings, their way of living in the present and past, their significant achievements, their institutions and problems of life they face with the increased amount of information pertaining to new items and happenings reported in different media. It helps the learners become proficient in identifying the places where the events take place.

iv) **Study of Society-**

The subject matter of social sciences consists of different traditions, customs, rituals, and ideas of the society developed from the ancient period to the present time. The society starts from the family and goes on to the international level.

v) **Functional Study of Natural Sciences-**

Social Science and Natural Sciences are interrelated and interdependent.

The amount and thoughts and complexities of knowledge in social sciences are vastly greater than in natural sciences. Although human being has built a great material civilization, s/he has not been able to apply her/his reason to solve the problems of a complex industrial age.

Only through the application of reason and thoughts, the social scientists will be able to extend the boundaries of knowledge and many devise method that will end the lag in social process. Scientists get ideas from the society for their inventions and discoveries will be proved only when they are applicable in the society.

To sum up, political science is related to all social sciences. Its study is incomplete without realizing its relationship with other areas of social sciences. While maintaining its separate identity, it works in close relation with other disciplines in social sciences for successful outcome of educational efforts.

Political Science Curriculum

Curriculum is the sum total of all planned and directed purposeful learning activities and experience provided by the school to the learners for achieving the desired learning objectives, Curriculum includes any materials or activities that affect the learning, development, attitudes, skills and behavior of the children in the school.

Curriculum in Political Science includes the subject matter and experiences which are specifically intended to develop an understanding of the working of the state, the government and various political and civic organisations. Curriculum is also intended to develop appropriate skills and attitudes relating to human relations and social and political institutions.

Principles of Curriculum Construction

The following principles may be kept in view while constructing the curriculum of Political Science.

1) Child Centered Curriculum

The subject matter should not be selected at random. It should be age and stage appropriate taking into consideration the background, diversity, interests and aptitudes of the students.

2) Inclusion of Direct Learning Situations and Activities.

Efforts should be made to include direct learning situations and activities in the course. Educational trips, visits to various institutions of social interest as markets, panchayats at work, town hall, power stations, dams, cooperative societies, places of historical importance... are more educative than verbal lessons. Similarly, self-government in the school and various projects planned, executed and evaluated by the adolescents themselves form the foundations of real learning for them.

3) Due Scope for Current Affairs

The curriculum must be flexible, to some extent, to accommodate the inclusion of current affairs which are yet to happen. Sometimes, the current affairs are the most important for educational purpose: current news may be exploited fully for giving comprehensive understanding of the environment.

4) Promotion of International Understanding

Modern inventions have practically removed the limitations put forth by time and space. The globe is so contracted today that the whole world has come closer. No nation can afford to exist in exclusion. Far off people are our next door neighbor due to the modern means of transport .Therefore, our children must have an understanding of their neighbours and their needs. We should wipe out war itself from the minds of men and women. It is possible through international understanding and the respect for humanity.

5) Cultivation of the Critical and Constructive Attitude

India follows democratic social structure. In a democracy all citizens are masters of their fate individually as well as collectively. They have to decide things for themselves so as to develop critical thinking. They should be able to make wise and informed decisions and choices. They should be able to follow causal relations of events scientifically. These relations should be kept in view while selecting the material for the curriculum.

Check Your Progress 1

- Note:** a) Write your answers in the space given below.
b) Compare them with those given at the end of the unit.

1) What is meant by the term “Political Science”?

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2) How is Political Science dependent on other social disciplines or branches of knowledge?

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3) What are the major principles to be kept in view while constructing the curriculum of Political Science?

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7.4 AIMS AND OBJECTIVES OF TEACHING POLITICAL SCIENCE

The main aim of teaching Political Science is to help individuals develop into responsible, critical, reflective and productive citizens.

7.4.1 Objectives of Teaching Political Science

Students will be able to:

- understand the need for learning of Political Science in secondary classes.
- develop a critical understanding about the aims and objectives of Political Science in a Democratic and Secular country.
- develop a critical understanding about the nature and philosophy of Political Science and its interface with society.
- engage with the classroom processes in Political Science.
- understand the nature of Political Science curriculum and its Pedagogical issues.
- understand the basic ideals of our constitution.
- develop as responsible and active citizens in a democracy.
- understand the significance of national integration.
- understand the importance of international relations.
- realize the significance of peace and the protection of basic human rights.
- organize co-curricular activities and use community resources for learning Political Science.

7.5 TEACHING – LEARNING METHODS IN POLITICAL SCIENCE

Teaching-learning in Political Science takes place with the use of certain approaches which make it effective.

Approaches to Teaching-Learning Political Science	
i) Inductive Approach	ii) Deductive Approach
iii) Constructivist Approach	iv) Interdisciplinary Approach

- i) **Inductive Approach** to teaching- learning focuses on moving from particular instances to general conclusion. While adopting this approach students are provided with concrete examples and with their help they are able to arrive at certain conclusions or principles.
- ii) **Deductive Approach** to teaching-learning involves providing students with principles and generalizations and asking them to verify these with the help of particular examples.
- iii) **Constructivist Approach** to teaching-learning is based on the principle of learning which emphasizes constructing knowledge by linking with previous

knowledge. In this approach knowledge and learning are acquired together by both teacher and learners and emphasis is shifted from teaching to learning.

- iv) **Interdisciplinary Approach** to teaching-learning aims at creating connections between the subject of political science with other disciplines such as, history, geography, economics, sociology, mathematics, natural sciences, languages, art, etc.

These approaches are supplemented by a number of methods, techniques and strategies of teaching-learning. A Method is a means of procedure which a teacher follows to organize teaching-learning and make learning easy and effective. It is composed of several important steps which are logically and systematically arranged by the teacher. Method is “the process of planning, guiding, sharing and evaluating learning with a group of students”. It recognizes the importance of the learners in the teaching-learning process, considers their interests individually and lays stress on education as being a constant process of reorganizing and restructuring experiences.

A Method which is successful with one group of students may not be successful when used by the same teacher with different group of students. Method must, therefore, be flexible and workable. There should be no rigid formalism in a teaching procedure.

There are a number of methods which are used in the teaching of Political Science-

Traditional Methods of Teaching-Learning Political Science	Modern Methods of Teaching-Learning Political Science
<ul style="list-style-type: none"> • Lecture • Question-Answer • Story telling • Textbook • Case Study 	<ul style="list-style-type: none"> • Lived Experiences • Community Resources • Comparative • Current events • Debate • Dialogues • Discussion • Dramatization/Role Play • Empirical Research • Excursion • Field Research, Visits to institution of government bodies • Individual and Group projects • Observation • Panel discussion • Problem Solving • Reflective Enquiry • Report Writing • Seminar • Sources

Some of the significant Methods are described here:

7.5.1 Lecture Method

Lecture is the oldest method of teaching. In this teacher goes on pouring out information and students go on listening and taking notes. This method is best suited for large classes with senior students. Students remain passive listeners; they fail to become active partners in the bipolar process of teaching and learning.

The positive features of Lecture Method is that it can be immediately repeated and modified and it gives students good training and experience in learning by hearing. It also saves time and energy of the students and is a good means of stimulating them.

On the other hand, the demerits of Lecture Method are that it places students in the position of passive listeners and it cannot be used effectively by all types of teachers. Many teachers do not know how to lecture in an effective way and it may become monotonous and dull as there are very few teachers who can stimulate interest through their talks.

7.5.2 Discussion Method

The main purpose of discussion is to learn and educate individuals in the process of “group thinking” and “collective decision”. Discussion is an important means of exchanging ideas with others and “often results in pooling opinions and joint action”. Agreement is the declared purpose of a discussion. It is always organized and undertaken in a disciplined atmosphere.

The essential parts of a discussion are:

- i) **A Leader**- is the teacher himself/ herself. But the teacher must not dominate the entire scene; s/he should act as a prompt guide when the students face with difficulties.
- ii) **The Group**- is the students who are generally composed of all types of temperament and varieties of mind. The teacher’s duty is to encourage every student to participate in the discussion.
- iii) **The Problem** or a topic, which is to be discussed.
- iv) **The Content**- is the body of knowledge to be transacted during discussion.. It should also include maps, charts, diagrams, etc.

Discussion is essentially a group work and the teacher is required to ensure that it is held in a cordial atmosphere. Discussion should be promptly guided and controlled. Students should not be allowed to deviate from the main themes of the topic being discussed. No partisan feelings should be allowed to creep in. Highly controversial matters or religious discussion should be generally avoided. Formal discussions may take the form of symposium, debates, panel discussions, etc. They require a lot of pre-planning.

7.5.3 Debate as a Method of Teaching

Debate method is widely used for teaching certain topics of Political Science to a large group of people. Teachers often use the debate to effectively increase students’ interests, involvement and participation during tutorial/seminar sessions. When a teacher uses the debate as a framework for learning, s/he hopes to get students to conduct comprehensive research into the topic, gather supporting evidence, engage in collaborative learning, delegate tasks, improve communication

skills, and develop leadership and team-skills- all at one go.(Christudason, 1994). It must have a topic that has scope for argument, i.e. the arguments should be both in favour and against the topic.

In the process of preparing for the debate, students get to know and understand their peers better, they are involved in delegation/sharing of tasks, researching on the issues, collection of material and summarizing the points, . This plays a role in improvement of communication skills and sharpening their ability to see issues from various perspectives. At the end of the day, a larger majority of students would have obtained a better grasp of the topic and learnt not only more, but also more effectively by understanding both pros and cons (Christudason, 1994). This way is preferable to traditional teaching-learning methods, such as passively listening to the teacher's lecture or writing an essay on a topic assigned by the teacher. It is a form of experiential learning which helps students remember well as they are *active* participants in the learning process.

7.5.4 Seminar Method

Seminars are simply a group of people coming together for the discussion and learning of specific techniques and topics. There are keynote speaker and several other speakers in a seminar, and these speakers are usually experts in their own fields, or areas. Several themes are scheduled on each day throughout the seminar, and attendees can usually make their choice of topics from among these scheduled themes.

The seminar method is the most modern and advanced method of teaching. Moreover, a seminar is an advanced group technique which is usually used in higher education. It is an instructional technique as it involves generating a situation for a group to have a guided interaction among themselves on a particular theme.

This method is employed to realize the higher objectives of cognitive and affective domains. The higher learning process requires the interactive and integrated methodologies based on the psychological principles. The seminar method applies such technique of human interaction and intervention with the learning and teaching experiences.

7.5.5 Panel discussion

Panel discussion is a teaching-learning technique in which a few persons carry on the conversation in front of the people. At the end of the conversation people also participate.

The audience put important questions and the experts answer and clarify the points.

Educational Panel discussions- These are used in educational institutions to provide factual and conceptual knowledge and clarification of certain theories and principles. Sometimes these are organized to find out the solutions of certain problems (Arora,2008) like the following:

- i) To provide factual information and conceptual knowledge.
- ii) To generate awareness of theories and principles.
- iii) To provide a set of solutions to certain problems.

Members in the Panel Discussion are as follows-

- i) Instructor
- ii) Moderator
- iii) Panelists
- iv) Audience

A Panel Discussion is designed to provide a group an opportunity to hear knowledgeable speakers on a specific issue or a topic, present information and discuss personal views. A panel discussion may help the audience further clarify and evaluate their positions regarding specific issues or topics being discussed and increase their understanding of the positions of others.

Instructional benefits of a panel discussion are the following.:-

- i) It encourages social learning.
- ii) It helps in achieving higher cognitive and affective objectives.
- iii) It is used to develop ability of logical thinking and problem solving.
- iv) It develops capacity to respect others' ideas and views and ability to analyse such ideas and views.

7.5.6 Individual and Group Projects

Teaching-learning of Political Science can also take place by assigning individual and group projects to students. Individual project makes the learner complete a task individually and is provided with adequate opportunity to observe and gather information on a particular topic, which thereby leads to acquiring knowledge. Group projects, on the other hand, help students perform certain tasks collectively. In the process, they are able to gather information from various sources and are also given the opportunity to learn from each other.

Field research and visits to institutions of real governmental bodies like Village Panchayat, State Assembly, Parliament, etc. enable students to learn from hands-on experiences, rather than by simply reading or hearing about them. Involvement in a real world experience makes learning more meaningful and permanent compared to regular classroom instructional programs.

Places such as museums, the parliament, courts and several other governmental institutions are repositories of information. The collected artifacts, archival records, pamphlets, models, etc. can play a major role in the up-gradation of the knowledge of learners. They provide students with experiential learning experiences and involvement in a real world experience makes learning more meaningful and permanent.

Check Your Progress 2

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

4) State two merits and two de-merits of lecture method.

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5) How is the debate method better than the traditional teaching-learning methods?

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7.6 TEACHING- LEARNING RESOURCES

Teaching – learning resources are used to make the teaching-learning process effective and interesting. These resources are used to make things clear and easier to understand. With the use of these resources, the environment of the classroom becomes livelier. Learners become more active and involved when all the senses of an individual are being used in the process of learning. With the help of using teaching-learning resources, certain images related to the topic being taught are created in the minds of learners. Thus, their capacity to think and imagine enhances. They find it easier to connect with what is being taught and are able to retain what they learnt for a longer period of time. In today’s time, several resources are being used to promote effective teaching-learning. Starting from the use of blackboards to multimedia resources, there has been a major growth and development in the forms of teaching-learning resources.

These resources can be grouped into “audio”, “visual” and both “audio-visual”. The audio resources are the ones which make use of the auditory sense of the individual in order to promote learning. Individuals learn by hearing. So listening to radio, audio recordings, songs and so on fall in this category.

On the other hand visual resources make use of the sense of sight in order to promote learning, individuals see something and they learn from it. Blackboard, Globe, Charts, Pictures, PPT, some video clippings and so on can be clubbed under the category of visual teaching-learning resources.

The “audio-visual” resources combine both the hearing and sight sense in order to promote learning. T.V, Movies, Video clips, A-V programmes and so on fall in this category. We discuss some important teaching-learning resources which are used in teaching of political science.

7.6.1 Constitution of India

The Constitution of India can prove to be an important teaching-learning resource in a political science classroom. While teaching several topics of political science, it is important for the teacher to explain to the students what our constitution makers had to say about those significant topics.

7.6.2 Acts of Parliament and Legislatures

The Acts of Parliament and Legislatures are amended and upgraded from time to time. They are available on websites, archives, books, etc. They can be used as a significant primary resource of knowledge and also to learn the language of

legislation. The teacher can make use of this resource in making the students learn about the functioning of the government and the Indian democracy.

7.6.3 Charts

A common, effective teaching method is to use visual presentations in a classroom. Charts and diagrams are especially helpful, as they enable students to see ideas visually laid out in an organized way. Charts are of several types such as outline charts, flow charts, flip- charts, tabular charts and organizational charts. They can be used in the teaching-learning process of political science for presenting material symbolically or diagrammatically, for introducing a topic, for summarizing some information and for depicting similarities and differences in several themes or views.

7.6.4 Atlas, Maps (Political) and Globe

These are used in explaining the details of boundaries of states, continents and countries. These are helpful in explaining the regional conditions, locations and significance of regional organizations.

7.6.5 Newspapers

The daily newspaper can be used as a significant teaching-learning resource. The socio-political news that is available in the newspapers is of great importance. A political science teacher and a student are supposed to be aware of the significant socio-economic and political developments taking place in our country and also around the globe. The newspaper is a medium through which an individual gets to know about the current happenings. Newspaper articles can be used in the classroom to explain certain concepts and to explain different viewpoints on this.

7.6.6 Magazines

Several magazines provide the readers with important information related to the working of the government, elections, about the main ethos of our constitution, about our country's diverse population, so on and so forth. Magazines can prove to be an important teaching aid in a political science classroom.

7.6.7 Movies

Movies play the role of an interesting and effective teaching- learning aid. They can be used to explain certain concepts to the students and to communicate several vital messages. Certain movies are of great educational value as they are able to present significant information in a creative and interesting manner.

7.6.8 A-V Programmes, Internet and Multimedia

In today's digital era, audio- visual programmes, Internet and multimedia are used in the exchange and growth of knowledge and information. Audio- Visual programmes or instructional material includes LCD Projector, Film Projector, TV, Computer, VCD Player, Virtual Classroom, Multimedia, etc. Multimedia refers to content that uses a combination of different content forms. Multimedia includes a combination of text, audio, still images, animation, video, or interactive content forms.

Check Your Progress 3

- Note:** a) Write your answers in the space given below.
b) Compare them with those given at the end of the unit.

6) What are the uses of teaching learning resources? Name some Political Science teaching learning resources?

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7) Can we use audio-visual resources for the teaching of political science? Explain?

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7.7 LET US SUM UP

In this unit, we explained the meaning, nature and scope of the discipline of Political Science. In order to make the teaching-learning of political science effective, a teacher is required to be aware of the various methods of teaching Political Science .This unit also explains that a Political Science teacher is required to keep her/his knowledge upgraded about the various teaching-leaning resources that make teaching-learning of political science more interesting. We also presented how with changing times and growth and development of technology, new teaching-learning resources are being used in the process of teaching.

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7.9 ANSWER TO CHECK YOUR PROGRESS

- 1) The term 'Political Science' is intimately related to the word "Politics", which itself is derived from the Greek word, "Polis", which means a city-state, the general form of political organisation in ancient Greece. Political science is a social science discipline concerned with the study of the state, nation, government and politics and policies of government. Aristotle defined it as the study of the state. It deals extensively with the theory and practice of politics, and the analysis of political systems, political behavior and political culture. Political science intersects with other fields, including economics, law, sociology, history, anthropology, public administration, public policy, national politics, international relations, comparative politics, psychology, political organization and political theory.
- 2) Political Science includes the study of state and the nation and neither the state nor the nation can be taught in isolation. Thus, the scope of social sciences and especially political science is very wide because it includes the knowledge of every sphere of life, as may be called social, political, economic, religious, cultural, psychological, philosophical, etc.

Political Science is, thus, not a separate and independent discipline but is only a part of the social sciences. Political Science, being a social science, is interdisciplinary by nature, which implies that it draws upon other social science disciplines or other branches of knowledge and thus dependent on them in various ways. It includes-

- 1) Study of Cause and Effect Relationship
 - 2) A study of Human Relationships
 - 3) Study of Man in his surroundings
 - 4) Study of Society
 - 5) Functional Study of Natural Sciences
- 3) Principles of Curriculum Construction

The following principles may be kept in view while constructing the curriculum of Political Science.

- 1) Child Centered Curriculum
 - 2) Inclusion of Directed learning situation and activities.
 - 3) Due scope for current affairs
 - 4) Promotion of International Understanding
 - 5) Cultivation of the critical and constructive attitude
- 4) Merits of Lecture Method
- Spoken word is more effective than the printed one.
 - It is a good means of stimulating students.
 - De-merits of Lecture Method
 - It places pupils in the position of passive listeners.
 - It cannot be used effectively by all types of teachers. Many teachers do not know how to lecture in an effective way.
- 5) Debate method is different from traditional teaching-learning methods-

Debate method is widely used for teaching certain topics of political science to a large group of people. Teachers often use the debate to effectively increase student involvement and participation during tutorial/seminar sessions. When a teacher uses the debate as a framework for learning, s/he hopes to get students to conduct comprehensive research into the topic, gather supporting evidence, engage in collaborative learning, delegate tasks, improve communication skills, and develop leadership and team-skills—all at one go.

In the process of preparing for the debate, students get to know and understand their peers better, they are involved in delegation/sharing of tasks, researched issues, assimilated material, summarized points, . This plays a role in improvement of communication skills and sharpening their ability to see issues from various perspectives. This way is preferable to traditional teaching/learning methods, such as passively listening to the teacher's 50-minute lecture/drone or writing a 2000-word essay on the topic concerned. It is a form of experiential learning which helps the students to remember well as they are an *active* participant in the learning process.

- 6) Uses of Teaching- Learning resources

Teaching – learning resources are used to make the teaching –learning process effective and interesting. These resources are used to make things clear and easier to understand. With the use of these resources, the environment of the classroom becomes livelier and learners become more active and involved when all the senses of an individual are being used in the process of learning. With the help of using teaching – learning resources, certain images related to the topic being taught are created in the minds of the learners their capacity to think and their imagination increases .They find it easier to connect with what is being taught and are able to retain what they learnt for a longer period of time. In today's time several resources are being used to promote effective teaching-learning. Some of the Political Science teaching-learning resources are the following-

Constitution of India, Acts of Parliament and legislatures, Charts, Maps, Atlas, Globe, Movies, A-V Programmes, Internet, Multimedia etc.

- 7) Audio-Visual resources can be effectively used in the teaching-learning of Political Science. In today's digital era, audio-visual programmes, Internet and multimedia are used in the exchange and growth of knowledge and information. Audio-Visual programmes or instructional material includes LCD Projector, Film Projector, TV, Computer, VCD Player, Virtual Classroom, Multimedia etc. Multimedia refers to content that uses a combination of different content forms. Multimedia includes a combination of text, audio, still images, animation, video, or interactive content forms.



UNIT 8 TEACHING-LEARNING PROCESS IN GEOGRAPHY

Structure

- 8.1 Introduction
- 8.2 Objectives
- 8.3 Meaning, Nature and Scope of Geography as a Discipline of Social Science
 - 8.3.1 Meaning
 - 8.3.2 Nature of Geography
 - 8.3.3 Scope of Geography
- 8.4 Aims and Objectives of Teaching Geography
 - 8.4.1 Aims and Objectives of Teaching Geography at Secondary Stage
 - 8.4.2 Aims and Objectives of Teaching Geography at Higher Secondary Stage
- 8.5 Teaching-Learning Methods in Geography
 - 8.5.1 Questioning
 - 8.5.2 Demonstration
 - 8.5.3 Peer Learning
 - 8.5.4 Games
 - 8.5.5 Simulation and Role Play in Geography
 - 8.5.6 Problem Solving and Decision Making
 - 8.5.7 Experiential Learning:
 - 8.5.8 Field Visits and Engagements in the Field
- 8.6 Teaching-Learning Resources
 - 8.6.1 Textbook
 - 8.6.2 Atlas
 - 8.6.2 Map
 - 8.6.3 Pictures
 - 8.6.4 Satellite Imageries and Aerial Photographs
 - 8.6.5 AV Programmes
 - 8.6.6 CDs
 - 8.6.7 Multimedia
 - 8.6.8 Internet
- 8.7 Let Us Sum Up
- 8.8 References and Suggested Readings
- 8.9 Answer to Check Your Progress

8.1 INTRODUCTION

Social science is one of the curricular areas in school education. It enables students to develop a critical understanding of the society. In Block-1, we have discussed how social sciences encompass diverse concerns of society by including wide range of contents drawn from the disciplines of History, Geography, Political Science, Economics and Sociology. As a teacher you may have experience of teaching all these components of social sciences, though you may not have studied about these disciplines during your school or college days. Now you might be facing difficulties sometimes while transacting learning experiences pertaining

to these disciplines. Taking cognisance of the situation, an attempt is made to provide you exposure to these major components of social sciences in Block-2. In the present unit you will be acquainted with another important component of social sciences i.e. Geography where you will be exposed to two major questions: what is geography and why should geography be taught at school stage? Through this unit, you will also be acquainted with different strategies through which students can be facilitated to learn geography. We will also describe various learning resources which can be used in classrooms.

8.2 OBJECTIVES

After going through this unit, you should be able to:

- explain the nature of geography as a discipline of social sciences;
- appraise how geography is an important component of social sciences;
- analyze the scope of geography;
- classify the branches of geography;
- discuss the rationale of teaching geography at different stages of school education;
- describe different methods of teaching geography;
- examine the different ways to create learning situations in geography; and
- explore the use and relevance of different learning resources in teaching-learning in geography

8.3 MEANING, NATURE AND SCOPE OF GEOGRAPHY AS A DISCIPLINE OF SOCIAL SCIENCES

8.3.1 Meaning

Geography, as we study it, has a long historical background. The first homo-sapiens might have encountered their geographical environment and might have endeavoured to negotiate with it. But the word ‘Geography’ was first used by Eratosthenes (276 – 194 BC) to mean the ‘description of the earth’. Etymologically, the word has been derived from two Greek words: geo (earth) and graphos (description). Let us look into some definitions given by scholars which throw light on nature of geography.

Some Definitions of Geography

Some Definitions of Geography

“Geography provides a view of the whole earth by mapping the location of places.”
Ptolemy, 150 CE

“Geography is a synoptic discipline synthesizing findings of other sciences through the concept of RAUM (Area or Space).”

Immanuel Kant, C.1780

“Geography is a synthesizing discipline to connect the general with the special through measurement, mapping, and a regional emphasis.”

Alexander von Humboldt, 1845

“Geography examines the way environment apparently controls human behaviour.”
Ellen Semple, c. 1911

“Geography is the study of human ecology; adjustment of man to natural surroundings.”

Harland Barrows, 1923

“Geography is the science concerned with the formulation of the laws governing the spatial distribution of certain features on the surface of the earth.”

Fred Schaefer, 1953

“Geography is concerned to provide accurate, orderly and rational description and interpretation of the variable character of the Earth’s surface.”

Richard Hartshorne (1959)

“Geography is the study of the patterns and processes of human (built) and environmental (natural) landscapes, where landscapes comprise real (objective) and perceived (subjective) space.”

Gregg Wassmansdorf, 1995

Source: Matt Rosenberg (geography.about.com/od/studygeography/geodefinitions.htm)

It is pertinent to note down that there is no single pervasive definition of Geography which can encompass the vast canvas of the subject due to its dynamic nature and frequent paradigm shifts. Geography is the study of distribution of the phenomena or it studies the human-environment relationship. It meant that geography is the study of physical environment on the one hand and the human activities on the other.

8.3.2 Nature of Geography

Geography is the discipline which seeks to explain the character of places and the distribution of features and events as they occur and change the surface of the earth. Geography is concerned with human – environment interactions in the context of specific places and locations. In addition to its central concern with space and place, it is characterised by a width of study, a range of methodologies, a willingness to synthesise work from other disciplines and an interest in the future of people – environment relationships. Finding answers to these questions requires investigation of the location, situation, interaction, spatial distribution and differentiation of features. Explanations of current situations come from both historical and contemporary sources. Trends can be identified which indicate possible future developments.

Some of the central concepts of geographical studies are location and distribution, place, people-environment relationships, spatial interaction, and regions. The teaching objectives of geography can best be achieved through a range of approaches. Geography often addresses the questions like where is it. (Location; absolute and relative), what it is like? (Spatial patterns), why is it there? (Cause and effect factors), why did it happen and how does it change? (Processes), what impact does it have? (Results), how should it be managed for the mutual benefit of humanity and the natural environment? (Conservation).

In the early stages of its development, geography provided the inventoried information by answering ‘What’ and ‘Where’ questions. For example, where is a particular country, place, river or mountain located? In which region or country,

a particular soil is found or crop is cultivated or a particular mineral is found? Thus, it was concerned with attending to locational questions. It provided information about the location of resources such as minerals, precious metals, agricultural commodities opening up the possibilities of trade. It was also beneficial to the colonial powers whose main purpose was to extract the resources of the colonies through the ports. So in this way this branch of knowledge had a narrow scope by providing information only about what and where.

Geography studies the physical as well as human aspects over the earth's surface. Physical characteristics that include landforms, climate, natural vegetation and soils provide background of various kinds of human activities. We are aware that human intervention through the modification is rooted through technology. You must have noted that the modifications of living conditions in the hot desert conditions of Arabian countries is successfully taken up by cooling technology such as refrigeration and air conditioning making life comfortable, on the other hand, the heating technology has made it possible to live comfortably in temperate and polar countries even when the temperature is below freezing point. Thus we can say that geography deals with two basic parameters in a holistic manner. These are natural/physical environment and the socio- cultural attainments of the human society as a result of their interactive activities within a spatial frame.

Geography is the science which deals with variations. The variable character is noted in both physical as well as human realms. There are variations over the space in terms of the physical landscape, such as mountains, hills, plateau, plains, and water bodies' like oceans, lakes, rivers as well as climate, vegetation, wildlife, soils and minerals. Likewise variations exist in the human realm such as population distribution, their economic activities, socio-cultural elements such as food, clothing, house types, religions, beliefs, customs, and mediums of expression such as languages and dialects. All these elements vary with reference to definite locational identities called regions. The human beings have occupied certain spatial niche in which they have developed their economy and society taking advantage of the resource base provided by the physical environment. The human-nature interaction produced numerous features and the human beings, in turn, went on improving upon it with the help of ever evolving scientific knowledge and technology. Actually the large part of cultural attainments of human civilization was made possible only with the help of technology. The human beings have been influenced by the dynamism of physical environment, technology and institutions created by them. Thus, this inter-relationship has often been described as the relationship between human beings and ever changing environment. Geography developed as the science of spatial synthesis which has made it to be an inter-disciplinary and trans- disciplinary subject.

Geography deals with regions. The region, basically, represents the spatial frame in which economic and social activities are carried out. Space is organized in a way that a pattern of phenomena emerges. Geography studies the spatial organization of the phenomena and analyses the spatial pattern according to certain laws.

Geography witnessed changes in the emphasis with the changing time. The geographers, before the publication of Friedrich Ratzel's (1844-1904) book "*Anthropogeographie*" thought that Geography is the study of earth's body with precise natural laws and human beings had no place in their understanding of

Geography. They thought that humans because of their unpredictable behaviour cannot be subjected to natural laws, hence were excluded from geography. Soon it was realized that human behaviour cannot be quantified hence behavioural and humanistic approaches were advocated.

The globalised world has thrown new challenges. With the development of technology, spaces on the globe have come closer. The distances have shrunk through faster modes of transport and revolution in information and communication technology. Today world has become a 'global village' where the information about every phenomenon is available at hand. Hence, the task of geography in the modern era is to study the spatial organization which is effected through networks on the surface and air. The modern Geography has to meet the challenges by studying the new type of spatial and social barriers being created in this uni-polar world.

Geography from its earliest days as a subject has always had a core focus on maps and spatial pattern and in the recent years GIS has become an important component in Geography. The present generation of geographers is well empowered through the modern techniques of Remote Sensing and Geographical Information System (GIS). These are very powerful tools but to be able to use them properly, one requires proper theoretical understanding of the phenomena.

Geographers are also addressing to the problems/issues which the world is facing today e.g. global warming, how the environment works and how human societies interact with it, global economy, food security, impact of new communication technologies, disaster management, etc. The geography in the modern age is a subject which takes cognizance of and seeks to understand the complexities of the earth in all its natural and human manifestations.

8.3.3 Scope of Geography

Domain of geography is vast enough. The subject matter of geography is studied through specialised number of branches. These branches are based on two approaches: systematic and regional. The branch having interface with natural sciences is known as physical geography, whereas the branch having interface with social sciences is known as human geography. Let us know more about these branches.

1) **Physical Geography** evolved from geology and other natural sciences. In fact, this is more of a natural science rather than a social one. Physical geography is concerned with environmental variables:

- Flora and fauna
- Climate
- Landforms, including rock type and arrangement, relief and drainage
- Soils
- Wild vegetation
- Relationships between these variables.

i) *Geomorphology* is devoted to the study of landforms, their evolution and related processes.

- ii) *Climatology* encompasses the study of structure of atmosphere and elements of weather and climates and climatic types and regions.
 - iii) *Hydrology* studies the realm of water over the surface of the earth including oceans, lakes, rivers and other water bodies and its effect on different life forms including human life and their activities.
 - iv) *Soil Geography* is devoted to study the processes of soil formation, soil types, their fertility status, distribution and use.
- 2) **Human Geography** is concerned with the spatial organization of society. In the beginning, the focus was on the description of the places where people lived. More recently, economic activities receive more attention with some emphasis on the regional distribution of resources and economic activities. Environmental issues also receive attention, but the focus is more on how landscape affects people than the reverse.
- i) *Social/Cultural Geography* studies the society and its spatial dynamics as well as the cultural elements contributed by the society.
 - ii) *Population and Settlement Geography (Rural and Urban)*. It studies population growth and distribution, density, sex ratio and migration age structure, occupational structure, etc. Settlement geography studies the characteristics of rural and urban settlements.
 - iii) *Economic Geography* studies the economic activities of the people including agriculture, industry, tourism, trade, and transport, infrastructure and services, etc.
 - iv) *Historical Geography* studies the historical processes through which the space gets organised. Every region has undergone some historical experiences before attaining the present day status. The geographical features also experience temporal changes and these form the concerns of historical geography.
 - v) *Political Geography* looks at the space from the angle of political events and studies boundaries, space relations between neighbouring units, delimitation of constituencies, election scenario and develops theoretical framework to understand the political behaviour of the population.

3) **Biogeography**

The interface between the physical geography and human geography has led to the development of Biogeography which includes:

- i) *Plant Geography* which studies the spatial pattern of natural vegetation in their habitats.
- ii) *Zoo Geography* which studies the spatial patterns and geographical characteristics of animals and their habitats.
- iii) *Ecology/Ecosystems* deals with the scientific study of the habitats and characteristics of species.
- iv) *Environmental Geography* concerns with the world leading to the realisation of environmental concerns and issues.

4) Regional Geography

- i) *Regional Studies/ Area Studies*: Comprising Macro, Meso and Micro Regional Studies
- ii) *Regional Planning: Comprising Country/ Rural and Town/ Urban Planning*
- iii) *Regional Development*
- iv) *Regional Analysis*

Geo-Informatics comprises Technology such as Remote Sensing, GIS, GPS, etc.

8.4 AIMS AND OBJECTIVES OF TEACHING GEOGRAPHY

Subject matter of geography is taught in different forms at different stages of school education. At the early primary stage, geography is introduced to small kids by exposing them to natural and social environment and is taught as integral part of languages and mathematics. In the later primary stage geography is taught through environmental studies where a child is initiated to locate and comprehend the relationships between the natural and social environment and introduced to analogies between the natural diversity and socio-cultural diversity. At upper primary and secondary stages geography is taught as part of social sciences where geography helps child in developing a proper perspective related to the issues concerning environment, resources and development at different levels from local to global. Issues related to geography are taught keeping in mind the needs to inculcate in the child a critical appreciation for conservation and environmental concerns. At the higher secondary stage geography is taught as an independent discipline as an elective. The foundation laid at this stage equips children with basic knowledge, skill and attitude to make meaningful contribution to the field of geography.

8.4.1 Aims and Objectives of Teaching Geography at Secondary Stage

At the secondary stage, Geography like other component of Social Sciences has a distinct entity. Yet adequate space has been given to develop multiple perspectives on a few selected themes, So that one also develops a comprehensive view. Geography draws its content from natural sciences as well as social sciences, therefore, unlike other social sciences, it does not study only human behaviour which is governed by reasons, it also studies physical phenomena, which are governed by cause and effect. Learners at this stage are prepared to take up a more intensive study for developing a deeper understanding of the socio-economic challenges before the nation. Local/regional context makes the learning relevant and enjoyable. Issues of gender, class, and caste may be woven with the given content in an appropriate manner.

The major objectives at this stage are as under:

- understand and appreciate the diversities in land and people of India in relation to their own place in the larger canvas.

- understand the process of economic and social change and development in their own surrounding and relate it with the contemporary India.
- understand the process of change and development in India in relation to the world economy and polity.
- understand the need for judicious utilisation of resources as well as the need for conservation of the natural environment.
- appreciate the rights of local communities in relation to their environment

Check Your Progress 1

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

1) Differentiate between human geography and biogeography.

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2) Mention any three objectives of teaching geography at secondary school level.

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8.5 TEACHING-LEARNING METHODS IN GEOGRAPHY

NCF-2005 envisaged child-centered pedagogy which means giving primacy to children's experiences, their voices and their active participation. As per this approach, teaching- learning methods in geography must focus on helping learner acquire knowledge and skills in an interactive environment. It is important that the process of learning must promote the spirit of inquiry and creativity among both learners and teachers. The teaching of geography must adopt methods that promote creativity, aesthetics and critical perspectives. The geography teacher, who is an important medium of transacting the curriculum, must simplify concepts in a language comprehensible to students and must make efforts for making the process of learning participatory by shifting from mere imparting information to involvement in debate and discussion. This approach of learning will keep both learners and teachers alive to social realities. Geography teacher must clarify concepts through the lived experiences of individuals and communities.

8.5.1 Questioning

A question is any sentence which has an interrogative form or function. In classroom settings, teacher questions are defined as instructional cues or stimuli that convey to students the contents to be learned and directions for what they are to do and how they are to do with them. Questioning is an important teaching skill as well as a teaching learning method.

We have discussed questioning in Unit-3 of Block-1 of this course. In this section our focus is not on skill of questioning but on questioning as a teaching-learning method.

In a constructivist learning design questioning is one of the important elements in the process of teaching and learning. The teacher must anticipate questions to be asked to the students. Teachers must also predict the questions. Questioning is a method to make teaching-learning process more lively and participatory. Questions are the most important tool of thinking. It is tool for reasoning, learning and teaching. Good quality question can stimulate thinking among students. A quality question forces the students to think for themselves and apply the knowledge they have acquired to solve the problems. The question provides the students a lead to proceed further in their learning. Questions are used at every stage of teaching, i.e. pre-active, interactive and post-active stages. Questioning in classroom teaching learning process is used as under:

- to make an estimate of previous knowledge/ experiences of learners.
- to stimulate the thought process.
- to encourage and promote discussion/ brainstorming.
- to facilitate learners to acquire, organize, use and evaluate information.
- to generate interest, curiosity and creativity among learners.
- to assess the level of learning.
- to develop interest and motivate students to become actively involved in lessons
- to evaluate students' preparation and check on homework completion
- to develop critical thinking and inquiring skills.
- to nurture insights by exposing them to new relationships.
- to stimulate students to pursue knowledge on their own.

Level or order of questioning: Depending upon the mental processes involved, there are three levels/ orders of questions. Lower order questions are of lower cognitive level and are asked to test recall and recognition words and material previously read or taught by the teacher. Lower cognitive questions are also referred to in the literature as fact, closed, direct, recall, and knowledge questions.

The middle order question is asked to assess understanding level and higher level questions are asked to assess higher order mental processes. Higher cognitive level questions are also called open-ended, interpretive, analysis, evaluative, inquiry, inferential, and synthesis questions.

When children speak, they are usually only answering the teacher's questions or repeating the teacher's words. They rarely do things, nor do they have opportunities to take initiative. The curriculum must enable children to find their voices, nurture their curiosity—to do things, to ask questions and to pursue investigations, sharing and integrating their experiences with school knowledge—rather than their ability to reproduce textual knowledge. Reorienting the curriculum to this end must be among our highest priorities, informing the preparation of teachers, the annual plans of schools, the design of textbooks.

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Questioning as a pedagogical tool in Classroom should be used not only for checking whether they have learnt but also to motivate them to think on various aspects. The students may be encouraged to put forth their arguments in support of their answer. **Use of 'one minute paper'** (Chizmar and Ostrosky, 1998) not only helps to get a clear understanding of student's learning but also acts as a pedagogical innovation for improving teaching. This method can be used in the final minute or two of the class hour. Students can be asked to write down important things that they have learned during transaction of a theme and also point out the issues or concepts which they are yet to grasp. This will help the teacher to gauge as to what is being learned, assess the learner's learning ability and also have an idea as to what is still needed. Short in- class Quizzes, debates, discussion and similar classroom checks on students understanding provides a proven framework to assess what students are and are not learning during the course.

Assessment: The type of questions asked has a very crucial role to play while assessing the students' learning. They should be framed in such a manner that they check the students':

- understanding of core concepts,
- ability to analyse, interpret the information,
- skills of presentation,
- reflective thinking,
- application of concepts to real- life situations, and
- making inter-connections between different concepts and topics

8.5.2 Demonstration

Demonstration is a technique through which the teacher shows various geographical phenomena and processes to students so that they can have concrete experiences and understand the concept properly. It is done with the help of two- dimensional or three dimensional models (static or functional), visual charts, flash cards, bulletin boards, power point presentations, multimedia presentations, films, documentaries, etc. Demonstration helps in motivating learners, retaining their attention and interest, which result in effective teaching and learning. In this method, both teacher and learners participate actively.

Example: Teacher with the help of working model, demonstrates the formation/ occurrence of seasons and in another instance teacher demonstrates the properties of rocks with the help of specimens of rocks.

8.5.3 Peer Learning

Peer learning essentially refers to students learning with and from each other as fellow learners without any implied authority to any individual based on the tenant that “ students learn a great deal by explaining their ideas to others and by participating in activities which they can learn from their peers”(Boud, 2001).

In peer learning students construct their own meaning and understanding of what they have to learn. Essentially, students are involved in searching for collecting, analyzing, evaluating and applying information to solve the issues. Students engage themselves intellectually, emotionally in constructive conversation and learn by sharing and questioning each other’s view point and reaching consensus. Peer learning can ensure conducive learning environment in the classroom. Teacher can ensure that the groups are viable enough; it must be small collaborative group. Peer learning leads to acquisition of content knowledge and fosters self directed learning skills, critical thinking and problem solving skills, and inter personal skills. It also leads to fun and joy while learning. The success of peer learning depends on the design, strategy and commitment of teachers and students.

To realize the benefits of peer learning in classroom, geography teacher must provide intellectual scaffolding. S/he may select topics in such a way that all students have some relevant knowledge of the issue to be discussed. They can raise questions to ensure that all group members participate meaningfully.

Peer learning strategies in geography classrooms

- 1) **Buzz groups:** While teaching the chapter on Environmental Conservation in geography to class X students, you can divide the class into smaller groups of 4-5 students to consider the conservational strategies of natural resources. Let the first group deal with water resources; the second group forest resources; the third group wildlife; the fourth group fisheries; and the fifth group mineral resources. After initial briefing, you may provide those 15-20 minutes for discussion and then you may ask one member of each sub-groups to share the findings with the whole classroom.
- 2) **Affinity Groups:** You may constitute one or more than one smaller groups of students comprising 4-5 members, who have strong affinity to each other and exhibits strong association among themselves. You can provide them the task to work beyond the school hours and ask them to present the findings to the whole class in the next formal meeting. Suppose you are teaching in a school located in rural area, you can form a small group who will design a small interview schedule for farmers working in the field about several geographical factors required for cultivation of standing crop. You can ask groups to present their findings in the class during the next formal meeting.
- 3) **Solution and Critic Group:** In this strategy one sub-group is assigned a discussion topic and the other group constitutes ‘critics’ who observe, offer comments and evaluate the presentation of the sub-group.
- 4) **Teach-Write-Discuss:** You can try out this method by providing instruction to the students, and then let them answer short questions in written form and justify their answers. After working on the questions individually,

students compare their answers with each other. A whole class discussion subsequently examines the array of answers that seem justifiable and the reasons for their validity.

Critique sessions, role-plays, debates, case studies and integrated projects are other exciting and effective methods which encourage and promote peer learning. Through these learning methods students acquire learning experience in free and relaxed classroom environment.

8.5.4 Games

The activity is meant to be enjoyable and that it does not matter who wins. Teacher can design several games based on maps and atlas. A large class is divided into smaller groups of six or less and each group is given a short time to accomplish a task, carry out an action, or discuss a specific topic, problem or a question. The advantage of games is very beneficial.

When groups are large and time is limited, games maximize students' inputs. Students get to know one another better and consider how another person thinks. This activity takes approximately 45-55 minutes and may take more or less time, but this activity is a great way to start a new unit when you typically open a new unit with a geography lesson.

Example of a Game (Pair or Small Group Activity) :

- Place a wall map in the classroom.
- Break up students into small groups or pairs, and refer to groups as teams. Make sure you have an even number of teams.
- Ensure that each team (each group) gets one question per round.
- The question will be based on identification of places known for their mineral deposits. Each team will be provided clue if the team is not able to identify the place on a map.

This will help students familiarize with the location of places known for mineral deposits.

8.5.5 Simulation and Role Play in geography

Simulation and role play: They work best when they are brief and discussed immediately. Students should be asked to imagine themselves in a situation or play the assigned roles. Role playing and simulation have the following advantages:

- powers of analysis and synthesis
- an ability to think ahead from an exciting situation.
- anticipating the probable actions of opponents.
- foreseeing the consequences of alternatives.
- evaluating the pros and cons of alternative courses of action one might take.

Role play is a useful activity in geography to help learners' to understand different viewpoints. Appropriate topics are generally easy for teachers to identify and they can research for the background information that is needed. What is more

problematic for most teachers is to implement the strategy effectively in the classroom. A good starting point is to observe some drama lessons and discuss with a drama teacher how he/she encourages students to take on convincing roles. Equally, it is important to note that learners need sufficient information to enable them to develop a realistic role. Role play is often used to help pupils appreciate the value positions of different people.

In order to plan for simulation and role play, you must keep following points in mind,

- What resources will be needed? How much do you want students to get “into role”? Do you need props?
- How will the classroom be arranged?
- Will role cards be provided by you, or will students research for information about their role and the views to represent?
- How will the roles be assigned? How long will the students need to prepare for their roles? Will any students need special support?
- What interventions will you make during the role play?
- How will a debrief be organized? How much time will be needed?
- What follow-up work will be taken up?

While dealing with a chapter on drainage, students may role play biographical account of rivers describing their geographical personality. Or a group may present a role play on conservation of water resources or forest resources for sensitising other students and for their own learning.

8.5.6 Problem Solving and Decision Making

Problem solving enables us to deal constructively with problems in our lives. Significantly problems that are left unresolved can cause mental stress and give rise to accompanying physical strain.

Development of life skills such as critical thinking skills, interpersonal communication skills, negotiation/ refusal skills, decision making/ problem-solving skills, and coping and self-management skills are very critical for dealing with the demands and challenges of everyday life.

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Problem solving is an important strategy in the process of higher levels of learning that involve transfer and application of the knowledge and understanding to new situations. Problem solving strategy make learners think rationally, understand intellectual processes and practice intellectual skills. Problem Solving strategies are rooted in John Dewey’s philosophy of pragmatism. Piaget and Vygotsky also emphasized it for construction of knowledge. There are different approaches to problem solving method. You must have studied about different approaches to problem solving like behaviorist, information processing, Gagne’s condition of Problem solving, Piaget’s condition of Problem solving and Vygotsky’s social constructivism.

Problem solving requirements:

- 1) Problem solving strategies become important when role of student changes from 'knowledge acquisition' to 'knowledge construction'.
- 2) In this method students are active participants in construction of knowledge.
- 3) The active participation and personal involvement of the learner motivates students to learn and contribute to the feeling of self-worth.
- 4) It requires identifying and defining a problem, selecting or designing suitable solutions, testing trial solution, evaluating the solutions and revising or redesigning the steps, if required.
- 5) The role of the teacher in problem solving is that of a guide or a facilitator. He/she may select, organize and direct experiences.
- 6) The problems must be real and relevant to the students.
- 7) The role of school is to replace chance activity by activities that lead to genuine knowledge and fruitful understanding.

Instructional strategy to develop problem solving abilities

Problem solving can be used to develop conceptual understanding and the ability to transfer and apply this understanding to new situations. It gives opportunity to think rationally and to see relationships and disciplinary structures. Thinking is the basic skill required in problem solving by which students make sense out of experiences. Problem solving requires the ability to identify and describe the problem, suggest and design the possible solutions, test trial solutions, evaluate the outcome and revise these steps where necessary.

Developing thinking skills among students

Thinking skills are divided into cognitive and metacognitive skills. **Cognitive skills** include inductive and deductive reasoning, ability to distinguish between relevant and irrelevant information, recognition and categorization of problems, analogous reasoning, generalization and evaluation, etc.

Metacognitive skills refer to knowledge about one's own thought process and the ability to monitor what one is doing, why one is doing and how one is doing. Metacognitive activities can be developed with the help of specific activities and through co-operative group work.

Steps in Problem Solving:

Problem solving method using cognitive and metacognitive skills has four main steps as follows:



- 1) **Identifying the problem:** Students must understand the problem and define it. To teach the skill of problem identification to the students, problems that are new and meaningful to the students may be selected.
- 2) **Planning and designing the methods:** Next step after selection of the problem is to plan and design the process of problem solving. In this heuristic

approach (problem is broken down into number of smaller steps and then the way to solve each of these steps is worked out) or analogical approach (searching for solutions that one has earlier used to solve similar problems) may be used.

- 3) **Executing the plan:** The execution of the plan may require collecting data, organizing data, analyzing data, interpretation, drawing generalizations and conclusions, etc.
- 4) **Evaluating the solution:** In some cases, just checking the solution may give students some ideas whether the solution is correct or not. Also the other way of doing it is to apply the solution to new a situation, that is, application of the solution to new situation may give some idea about the correctness and validity of the solution.

Problem solving in Geography:

In geography, problem solving can be used to develop abilities such as analytical thinking, critical thinking, reasoning, and judgment, etc.

Decision Making: It helps us deal constructively with decisions about our lives. Decision making is an important life skill at all stages in life; it involves logical steps comprising determining the problem, considering multiple alternatives and choosing the best alternative based on the particular situation. Abstract thinking is an important skill for decision making. Learners need to move from being absolute thinkers (who believe that there is only one right or wrong answer) to abstract thinkers (who consider more than one right or wrong answer). The other skills required to arrive at a decision would include gathering information, analysis and evaluation.



Figure 8.1: The Process of Decision Making

8.5.7 Experiential Learning

Experiential learning means learning based on learners' acquired experiences; it is also called nature's way of learning. It is learning that occurs as a direct participation in the events of life. It includes learning that comes through reflection on everyday experiences. Experiential learning is also known as 'informal education' and includes learning that is organised by learners themselves. An experiential educator's role is to organize and facilitate direct experiences of phenomenon under the assumption that this will lead to meaningful learning. This often also requires preparatory and reflective exercises.

Primacy of the Learner: In experiential learning, student becomes more actively involved in the learning process than in traditional didactic education. For example, visit to wildlife sanctuary and national park, learning through observation and interaction with the natural environment are experiential in nature in contrast to reading and talking about animals and their habitats in a classroom. The main emphasis here, from a pedagogical point of view, is that teacher who takes his/her students to wildlife sanctuaries values direct experience more than abstract knowledge.

8.5.8 Field visits and Engagements in the Field

Field visit or field work provides opportunities for the first-hand investigation of people in their environment and as such awakens students to a diversity of environments and cultures, in their local areas. It teaches students to collect, analyse and present data, sharpen their observations, measure, record and evaluate the findings. As such, fieldwork has important contributions to make geography real and enjoyable and as a result every geography student should be entitled to have a reasonable amount of exposure to fieldwork experience through the geography course. Fieldwork should not be limited to visits and guided tours, whereby students are involved only in passive activities such as listening, observing and note-taking. Fieldwork should be enquiry-based in line with the aims and objectives of the school curriculum. It should involve students in identification of an issue or problem in a specific area, collect, present and analyse data and finally identify possible solutions or strategies.

Teaching Geography through Field Trips

- 1) **Local Trips:** The local trips will be valuable to the students of primary and upper primary stages. The students should be led to explore and study their surroundings for first hand information with regard to various crops grown, types of animals found, local markets or factories, rivers or lakes. Local trips are usually taken when the teacher has got two or three vacant periods at her/his disposal.
- 2) **Community Trips:** These trips take a longer period of time than local trips- may take the whole day or two days and involve more extensive preparation by the students. Community trips may include important industries, natural resources, mineral resources, museums, zoos, irrigation projects and other means of irrigation which are located not very far from the institution. The children should be taken to be the centres of industry and commerce. Geography includes social and economic factors.

In the workshops and mills, pupils will see how raw material is turned into finished products and they will also be curious to know where the raw material comes from, where the finished products are consumed, etc. From commercial centres whether those are village shops or town markets, they will learn how commercial transactions are going on. They will learn what **Import and Export** means. The study of agriculture and the facts connected with this pursuit is also possible only through excursions. Children can be taught the nature of soil, different seasons, and the means of irrigation and the influence of pests in this way. For the study of concrete Geographical facts, the students should tour the countryside as often as possible.

Tips and Techniques:

- Set up the field trip as a research project that includes data collection.
- Conduct a theoretical examination of the issue in class long before going into the field. Students should have a sense of what the field trip is going to be about before they go.
- At least two weeks before heading into the field, develop the rudiments of basic hypotheses. At this point you should give details about the field site so that students know what to expect.

- In the field, focus on the things that you've agreed to and let the other stuff be icing on the cake.
- Take a backpack full of extra warm/dry clothes and snickers to pass out to students as the need arises.
- For a large class, select group leaders to manage smaller groups of the class.
- Ask students to take appropriate clothes, and materials required for the field.

Issues to Consider/Prepare For:

- Transportation
- Identifying group leaders with previous experience
- Weather
- Coordination with external personnel
- Effective use of team leaders (management of group dynamics)
- Student concerns and safety measures.

Check Your Progress 2

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

3) How can questioning be used as a pedagogical tool?

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4) Mention the steps followed in problem solving.

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5) Explain the concept of experiential learning.

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8.6 TEACHING -LEARNING RESOURCES

Resource, in ordinary parlance, is a commodity which has utility and value. In teaching-learning process of geography, we tend to use various objects, materials, people, and buildings to transact the contents. These are called learning resources. Sometimes these learning resources are also referred to as Instructional Aids/ Instructional Media. There is a wealth of learning resources in geography. You are familiar with common learning resources such as maps, globes, blackboard (chalkboard), charts, models, video film, radio, etc.

The resources may be used by teachers, students or both during instruction so as to maximise the attainment of learning objectives. In this section, we will be acquainting you with some specific learning resources for geography. We will also facilitate you with their conceptual understanding, how to use these learning resources and why to use these learning resources.

The importance of Learning Resources is stressed in Focus Group Paper of Teaching of Social Sciences. (NCF 2005.)

‘Teaching should utilize greater resources of audio-visual materials, including photographs, charts and maps and replicas of archaeological materials’

Source: NCF -2005

If so much is said about the importance of learning resources, you may raise a question, what is the need for using these learning resources when teaching learning can happen without that also. You can observe the difference between your teaching with and without using learning resources. Let us we discuss the need and importance of learning resources.

- Application of these learning resources makes teaching and learning effective.
- Learning resources help learners achieve the learning objectives more effectively and efficiently.
- Learning resources help in clarifying, interpreting and appreciating concepts; establishing and correlating accuracy. They provide clarity, precision and accuracy in processing information
- They help students learn faster, remember for longer time, and gain more accurate information.
- Some of these resources are used to create readiness in learners for learning experiences.
- They create visual images which help retention of the learnt concepts. Some of them also provide stimulation to more senses than one (e.g. video film or television).
- They also have the capacity to provide real (direct) or almost real experiences.
- Some resources provide the learner opportunity to learn individually at his/ her own pace (e.g. computer-assisted instructional programme) or in a small group (models, assignments, newspaper cuttings for discussion, etc.) or multimedia.

Learning through the use of resources

A good geographical enquiry usually involves the use and analysis of a rich variety of resources including worksheets, textbooks, maps, models, computer softwares, interactive games, internet, newspaper resources, weather instruments, specific items (rock samples and tools) and many others. Very often such resources arouse students' motivation and engage them in active learning situations that meet their varied needs. Besides this, such an extensive range of resources enhance students' learning experiences and are seen by many as a key attraction of the subject. Ideally geography should be taught in a special room allotted for the purpose which includes:

- adequate space for students preferably equipped with desks having flat surfaces for practical work especially cartography;
- spacious environment for the storage and effective use of resources including maps, books, charts, apparatus, posters, handouts and computers;
- various kinds of thematic maps, physical maps and topographical sheets;
- globes, including political, relief and activity globes that can be marked and cleaned;
- meteorological and fieldwork instruments;
- aerial photographs and satellite imageries;
- computers with internet access;
- interactive whiteboard; and
- water supply for use in model and map making.

Students should be encouraged to handle and use such resources during breaks or when geography related extra-curricular activities are being organised in school

8.6.1 Textbook

You are well aware of the concept and importance of textbook in our classroom situations. A textbook is a book designed for classroom use, carefully prepared by experts in the field and equipped with the usual teaching devices. Teachers use textbook in different manners in classrooms. Some are totally dependent on textbook as textbook is the only source of transacting instructional process, on the other hand, there are teachers who use textbook as supporting material. In our country textbooks are developed by different specialized agencies. At the national level, National Council of Educational Research and Training (NCERT) develops textbooks for all the stages of school education in all the curricular areas in Hindi, Urdu and English Medium. In states, the work of textbook development is entrusted upon either SCERT or State Textbook Bureau. Apart from that there are several private publishers who develop textbooks for school education. Textbooks in geography, based on NCF-2005, encourage students to engage in questioning and enquiry. In- text questions, content enrichment through information given in boxes, visual based questions and fun activities like puzzles, etc. engage students in several types of activities. These activities are helpful in enhancing their learning capabilities and in generating interest in the subject.

How to use Textbook in Classrooms: We have discussed about the use of textbook in Unit II of this course.

8.6.2 Atlas

Large number of maps bounded in a volume is termed as atlas. It contains several maps related to world, different continents, countries and regions. It also contains several thematic maps of different regions. Atlases also include additional information in the form of illustrations, tables, diagrams and graphs. An atlas is not only useful when trying to find places, but also when obtaining and comparing information on different areas around the world.

Atlases have a similar role to play in enriching the child's understanding of the earth, both as a natural and as a human habitat. Atlases of stars, flora and fauna, people and life patterns, history and culture, etc. can greatly enlarge the scope of geography, history and economics at all levels.

As our textbooks are not the only source of knowledge and there is limited number of maps in every textbook, so it is desired that the teachers must have extensive use of atlas for teaching-learning of geography.

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Using an atlas

Atlas may be in the digital form or a hardcopy in print form. An (hardcopy) atlas is generally structured like most other reference books. At the front of the atlas there is usually a contents page, which lists all of the maps that are featured in the book and their pages. The main content of the atlas is essentially different types of maps that feature anything from the entire continent to small towns and cities. At the back of the atlas there is usually an index page(s). The index page lists all the countries, cities and towns which can be found in the atlas. Beside the listings, there is usually a page reference, a **grid reference** (comprising a letter and a number) and a **latitudinal** and **longitudinal** reference. Atlas is very conveniently used as supplementary material by geography teachers.

8.6.2 Map

The word 'map' has been derived from a Latin word 'Mappa' which in classical Latin means table cloth or a cloth cover. It indicates that the earlier maps were drawn on cloth or on tree leaves and the use of drawing paper came at a later stage.

A map is a selective, symbolized and generalized representation of the whole or part of the earth at a reduced scale.

Maps has six essentials that includes; title, scale, map projection, direction, conventional signs and index/legend. **Maps are classified on the basis of scale, content and purpose.**

- 1) **Maps according to scale:** Maps are drawn on different scales depending on the area covered by the map and the size of the map. Based on scale, maps have been categorized as large scale and small scale. Large scale maps are drawn on a large scale and include cadastral map and topographical maps. On the other hand small scale maps are drawn on a small scale and include wall maps and atlas maps.
- 2) **Maps according to content and purpose:** Based on content and purpose, maps can be divided into two broad categories:

- i) **Physical or Natural Maps:** They show natural phenomena such as relief, climate, natural vegetation, soils, etc. Maps showing natural features of the earth such as mountains, plateaus, plains, rivers, oceans, etc. are called physical or relief maps.
- ii) **Cultural Maps:** They show cultural landscape such as demographic, socio-cultural, political, historical, economic, commercial, agricultural information, etc. Maps showing cities, towns and villages and different countries and states of the world with their boundaries are called political maps.

Some maps focus on specific information such as showing distribution of temperature, rainfall, forests, minerals, industries, population, transportation, etc. These are known as thematic maps.

Maps provide more information than a globe. Maps are useful pedagogical tool. They help students learn concepts, synthesise and integrate ideas, and draw reasonable inferences and observations.

You must ensure that you carry right kind of map to your classroom. Learning of geography must take place with the help of maps. Maps can facilitate learning of concepts if learners are made to observe, compare, correlate and analyse maps. They must be made to understand cause and effect relationship through maps. For example, while teaching types of natural vegetation make students understand the contents through physiographic, climatic and soil maps. You can design several activities to assess learners' ability to read maps and draw inferences. Teacher can see if they are able to correlate the information given in two or more than two maps. These activities can be conducted in the classroom in groups or individually with the students.

You may note that tactile maps may be used for visually challenged students to understand and compare the maps. Care should be taken that tactile maps do not have too much information. Some organizations like the *National Atlas and Thematic Mapping Organisation* have developed atlases for visually challenged students. In case of unavailability of such maps/atlasses tactile maps may be prepared with the help of wool, thread, grains etc. At the national level, NCERT has also taken initiative to develop tactile maps.

Learning through maps

Maps in the form of paper, digital images and globes are an important tool for geographers and enable us to record, display and analyse information about people and environments. Teachers should ensure that their students are able to master a reasonable level of mapping skills and integrate such skills into the learning and teaching of geographical issues in the curriculum. Understanding and using maps involve the simultaneous use of a number of concepts and skills including aerial perspective, proportion, map language and arrangement. Students should be given the opportunity to develop their map literacy so that they can use maps to find out about and interpret the world around them in a critical informed way. In an enquiry based approach students should have access to a wide range of maps including large wall maps, atlases, globes, maps on CD-ROMs and other electronic media, including Google Map and Google Earth as well as a wide range of Ordnance Survey maps at various scales.

Globe

A globe is a spherical representation of the earth's surface. The globe is the nearest approximation of the earth. This is one of the essential instructional media for a geography teacher. Without its use, the teacher cannot explain the shape of the earth. The teacher can use the globe to explain about the axis of the earth, its end points - the North Pole and the South Pole, the Equator and the grid of latitude and longitude, and how the intersection of the two helps in locating any place on the earth with precision. It is with the help of the globe that one can form correct idea of location, size and shape of ocean and continents. The globe alone gives the idea of rotation and revolution of the earth causing day and night and seasons. It also shows how the equator divides the earth into two equal hemispheres.

8.6.3 Pictures

In today's world people are using technology to a large extent. Smart phones with camera facility are very common these days. Geography teachers can utilize these gadgets and develop their material assets in the form of images. As we are aware that pictures and photographs are indispensable tools for illustrating geographical facts. A picture is a painting, drawing or sketch of feature or geographical phenomenon. Many geographical features can be illustrated through pictures. A photograph is a type of picture obtained by using a camera and a light sensitive material i.e., the film. These days even films are not used and people are generating images through digital mode.

While using pictures, geography teachers must ensure that pictures are accurate and relevant. They must be attractive and natural to arouse interest among student and must be selected in such a way that there is scope for questioning the learners on the basis of their observations. Geography teacher cannot ignore the significance of pictures and photographs as these make the study of Geography real and bring reality to the learners. Learners may develop skills of observation, analysis and interpretation. Pictures and photographs attract and sustain the learners' attention when they are used to illustrate things that are unfamiliar to learners. For example, while teaching landscapes, teacher makes use of pictures to teach sand dunes.

Considering the objectives of teaching geography and the number of students present in the classroom, the teacher can select the appropriate photographs and pictures. The teacher may find situations where pictures and photographs are to be viewed by individuals; these pictures/photographs may be there in the textbooks. These pictures are viewed by learners individually - viewing can also be done in pair of students if the pictures are in limited number. Then there are situations when pictures and photographs can be viewed in groups. In this case the photographs with the same features are shown to all the groups and if the features are different, then the groups can exchange these photographs. This is done when the pictures/photographs are not adequate for every student in the class. Still there are other situations where pictures and photographs are viewed by the whole class with the help of projector/media. Teacher does ask questions about these pictures/photographs.

How to Use Pictures/Images in Classroom

You may note that selecting a good picture and planning to use it in teaching will not be meaningful unless it is utilized effectively. Here are certain suggestions for use of pictures in classrooms.

- i) Provide introduction to the picture like, this is a picture about..... or related to.....
- ii) Learners should be directed to the most significant features in the photographs. Learners should make a list of features observed in the photographs.
- iii) Provide learners with sufficient time to comprehend the picture.
- iv) Learners should be asked to describe and explain the features on photographs. The pattern and distribution of features on photographs should be observed.
- v) Learners should be encouraged to examine relationships among phenomena and guided to infer on the basis of their observations.

How to Procure Pictures and Images

You will agree to the point that pictures and images play an important role in transacting the curriculum. A textbook, which is the prime source for teaching in classrooms, has limited photographs and images. Even if the textbook has images, sometimes quality of the images does not attract attention of the students, may be because of its colour or poor printing. In such a situation, you may face a challenge of procuring these pictures and images. In order to facilitate you, we are suggesting several sources from where pictures can be obtained.

- i) **Magazines:** Educational magazines, geographical magazines, national geographic magazines.
- ii) **Official publications:** Publications of govt. offices like Indian Council of Agricultural Research (ICAR), Survey of India, Department of Science and Technology for meteorological and weather reports, Reports of Census of India.
- iii) **Newspapers and periodicals**
- iv) **Advertising brochures:** Issued by railways, shipping companies, airlines, travel agents, etc.
- v) **Old books and magazines**
- vi) **Postage stamps**
- vii) **National Repository of Open Educational Resources (NROER) of National Council of Educational Research and Training(NCERT)**

8.6.4 Satellite Imageries and Aerial Photographs

You are familiar with photographs taken with normal cameras. These photographs provide us with a view of object similar to the way we see them with our own eyes. In other words, we get a horizontal perspective of the objects photographed. In order to take a bird's eye view of similar feature we have to place ourselves in air, the perspective which we get is aerial perspective. The photographs taken from an aircraft or helicopter using a precision camera are termed as aerial photographs. In other words, aerial photograph can be defined as a photograph

taken from an airborne platform using a precision camera. The photographs obtained through aerial photography are indispensable tools in topographical mapping and interpretation of the images of the objects. Aerial photographs are used for two main specialized related sciences.

Photogrammetry: The science and technology of taking reliable measurements from aerial photographs.

Image Interpretation: An act of identifying the images of the objects and judging their relative significance.

Aerial photographs are classified on the basis of the position of the camera axis, scale, angular extent of coverage and the film used.

8.6.5 Audio-Video Programmes

In the beginning of the unit we have expressed that geography is a spatial science. It studies about areas and areal differentiations. These facets of the discipline can be better transacted with the help of audio-visual aids. You can recall that audio visual aids were devices by which learning process is encouraged and carried out through the sense of hearing as well as sense of sight. Television (Doordarshan) is a valuable instructional aid in the teaching of geography. Students can see and hear about the various natural and human phenomena taking place at the local, national and international levels. The television enables the teacher to bring the current events into the classroom and if the students are encouraged to observe and analyze and generalize the television can be a valuable resource.

How to Use Television in Classrooms

To derive maximum benefit from the broadcast the teacher must plan each stage cautiously

i) **The Preparation stage**

The teacher should select the program before hand. Procure and study in advance the related printing materials of all broadcasting stations. Students should be given an outline of what to observe and focus upon. The physical environment should be comfortable i.e. adequate ventilation, comfortable seating, appropriate distance to be maintained between the learner and the screen.

ii) **The Presentation stage**

The television has to be switched on at the right time. The screen should be clearly visible to all and the volume has to be adjusted so that the students concentrate. Conducive learning environment has to be ensured throughout the telecast of the programme.

iii) **The Follow-up stage**

The teacher should review the important points and conduct a culminating activity such as debate, discussion, etc. Each student should be given an opportunity to clarify doubts and fill the missing links.

8.6.6 CDs

Instructional material stored in Compact Discs (CDs) can be procured from Central Institute of Educational Technology (CIET-NCERT), New Delhi. There are several other private companies which produce instructional materials. These materials must be used in a systematic manner.

8.6.7 Multimedia

Multimedia is a term frequently heard and discussed among educational technologists today. Unless clearly defined, the term can alternately mean a judicious mix of various mass media such as print, audio and video or it may mean the development of computer-based hardware and software packages produced on a mass scale and yet allow individualized use and learning. In essence, multimedia merges multiple levels of learning into an educational tool that allows for diversity in curricula presentation.

Multimedia package is defined as a computer based package that includes the integration of different media such as, text, sound, video, images of two dimensional forms, simulations and animations to offer information with impact. In Geography teaching, usage of multimedia technology helps to stimulate students' interest in learning.

Education has always acknowledged versatility and efficiency of multi-media communications. Multimedia does not necessarily require computers. For example, geography teachers often combine the use of slides, overheads, chalkboards, movies, videos, and sound recordings in their lectures and academic presentations. Further, atlases have a long tradition of integrating text, images, maps, diagrams, and graphs. Thus the concept of multimedia is not completely new to geographers. Now the time has come to make use of computer based multimedia packages in the field of education to make teaching-learning process more effective and meaningful. Multimedia is regarded as more than mere technology by researchers. The typical design of multimedia is an array of representational forms (e.g. image, map, diagram, sound, and video). Multimedia is getting equipped with an array of computers, software, network connections, and projection equipment. Geography is one curricular area that has really gained from computer technology. Sound, movement, colour and lots of ways to present the facts come alive with computers and make geography teaching meaningful. In order to improve the effectiveness and efficiency of teaching in Geography, application of computer based multimedia technology is inevitable.

Geography provides a rich and varied context for the use of new technologies to enhance both learning in the subject and reinforce existing ICT skills. It can help students investigate, organize, edit and present geographical information in many different ways.

In Geography, ICT can help students in various ways

- To enhance geographical knowledge and improve geographical enquiry skills.
- To develop skills of graphical, statistical and spatial analysis.
- To develop mapping skills.

- To experience alternative images of people, places and environments and how environments change.
- To simulate or model geographical systems and environments.
- To communicate with other students in other localities by email, webcams and video conferencing.
- To improve the skill of presentation.

Multimedia is particularly appropriate for geographic education since geographic concepts should be learned through text, maps, pictures and sound to acquire new learning experience. The CD-ROMs can be prepared by subject experts and multimedia professionals. The textbook can be accompanied with the CD-ROM that can be written in crisp, elegant and simple language to facilitate the learning process. Readily available CD may not suffice the purpose of teaching learning. Tailor made packages according to the need of syllabus can prove to be more worthy. Though Indian Schools have started the involvement of such packages in schools but are insufficient according to the requirement. There is scope for teachers to initiate the development of such multimedia packages.

8.6.8 Internet

Internet is an important computer based learning resource. This is highly advanced source of learning geography. E-learning is an instruction delivered on computer by the use of CD-ROM, Internet or Intranet. It is simply learning with the help of computer and internet technology. E-Learning is web based training with inputs of techniques such as animations, visualizations, simulation and games, text, audio, video and lots of creativity. The biggest challenge of e-learning is provision of infrastructure-physical, financial and experienced human resources. Though the government is striving hard to provide these resources to all the schools of the country but it will take some time. The NCERT textbooks based on NCF-2005 had also listed various websites which can be of great help to the teachers and students in learning effectively.

For teaching the chapter on Indian Monsoon, additional information can be obtained from different sources. One of the most dependable and authentic source is Indian Meteorological Department (IMD). One can access the site www.imd.ernet.in/main_new.htm and download daily weather map, satellite images of every date. Besides this the site also provides information on seismological data, seasonal or annual rainfall maps etc. The site for encyclopaedia Britannica is given below. This also provides additional reading materials that teachers should refer to.

<http://www.britannica.com/EBchecked/topic/121560/climate/53296/TheIndianmonsoon#ab=active~checked%2Citems~checked&title=climate%20%3A%3A%20The%20Indian%20monsoon%20--%20Britannica%20Online%20Encyclopedia>

Other site of interest that can be recommended is the site for Indian Ocean Monsoon <http://www.crseo.ucsb.edu/esrg/IOM2>. This site provides good information on mechanism of monsoon. Teachers should visit this site and also encourage students to do so.

Learning through Information Technology

Information and Communication Technology (ICT) influences how students make sense of their world today and at the same time offers a range of tools to support their geographical understanding. Specific programs such as Google Earth can improve spatial thinking. The internet enables, students to gain up-to-date information and access to a vast range of images, videos, data and other sources which can greatly enrich geographical understanding. By the use of IT teachers have the power to make lessons livelier and enjoyable thus enhancing students' learning motivation. Geography teachers should provide students adequate opportunities to apply ICT in their enquiry-based approach to the teaching of the subject. This is because ICT:

- provides a range of information sources to enhance geographical understanding and supports the development of a body of geographical knowledge.
- provides images of people, places and environments.
- helps students develop their ideas using ICT tools to amend and refine their work and enhance its quality and accuracy.
- helps students exchange and share information, both directly and through electronic media.
- provides students with the ability to review, modify and evaluate their works, reflecting critically on their quality as they progress.
- contributes to students' awareness of the impact of information systems on the changing world.
- contributes substantially to the development of a range of ICT capabilities, especially in regard to data handling, use of communication technologies and information sources and modelling.
- develops the students' skills in the following ICT toolkit namely word processor; spreadsheet; presentation software; desktop publishing (DTP) software; internet browser/e-mail; electronic atlas; electronic encyclopaedia; geographic information system (GIS); automatic data logging weather station; digital camera.

Check Your Progress 3

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

6) Define 'learning resources'.

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7) What is cultural map?
8) What is e-learning? How can it be used in teaching geography contents?

8.7 LET US SUM UP

In this unit we discussed the nature and scope of geography. We focused on objectives of teaching geography at secondary school level. We also presented several classroom strategies based on constructivist approach for teaching-learning of geography. We described several learning resources which can be used by geography teacher in order to make his/her teaching effective. While discussing learning resources, we emphasized on the use of learning resources. The unit has made an attempt to enhance your professional skills to become effective geography teacher.

8.8 REFERENCES AND SUGGESTED READINGS

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8.9 ANSWER TO CHECK YOUR PROGRESS

- 1) Human geography is concerned with the spatial organization of society. In the beginning, the focus was on the description of the places where people lived. More recently, economic activities receive more attention with some emphasis on the regional distribution of resources, and economic activities. Environmental issues also receive attention, but the focus is more on how landscape affects people than the reverse. The interface between the physical geography and human geography has led to the development of Biogeography.
- 2)
 - i) To understand the process of economic and social change and development in their own surrounding and relate it with the contemporary India.
 - ii) To understand the process of change and development in India in relation to the world economy and polity.
 - iii) To understand the need for judicious utilisation of resources as well as the need for conservation of the natural environment.
- 3) Questioning as a pedagogical tool in classroom should be used not only for checking whether students have learnt the contents but also to motivate them to think on various aspects.
- 4)
 - a) Identifying the problem
 - b) Planning and designing the methods
 - c) Executing the plan
 - d) Evaluating the solution.
- 5) Experiential learning means learning based on learner's acquired experiences; it is also called as nature's way of learning. It is learning that occurs as a direct participation in the events of life. It includes learning that comes about through reflection of everyday experiences. Experiential learning is also known as 'informal education' and includes learning that is organised by learners themselves.
- 6) Learning resources refer to objects, materials, people, buildings etc. used to transact the contents in teaching-learning process of geography.
- 7) Cultural maps show cultural landscape such as demographic, socio-cultural, political, historical, economic, commercial, agricultural information, etc.
- 8) E-Learning is web based training with inputs of techniques such as animations, visualizations, simulation and games, text, audio, video and lots of creativity. It can be used to teach different geography contents like climate, rainfall, mountain ranges, ocean currents, monsoon, etc.

UNIT 9 TEACHING-LEARNING PROCESS IN ECONOMICS

Structure

- 9.1 Introduction
- 9.2 Objectives
- 9.3 Economics: Nature, Scope and Method
 - 9.3.1 What Economics is about?
 - 9.3.2 What Economists do and how?
- 9.4 Why Teach Economics? Curricular Objectives in Economics
- 9.5 Teaching-learning Methods in Economics
 - 9.5.1 Lectures
 - 9.5.2 Discussions
 - 9.5.3 Problem-Based Learning (PBL)
 - 9.5.4 Simulation Games in Economics
 - 9.5.5 Learning Through Concept Maps
 - 9.5.6 Projects
 - 9.5.7 Field visits
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 - 9.5.9 Peer and Collaborative Method
 - 9.5.10 Document Analysis
- 9.6 Teaching-learning Resources
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 - 9.6.5 Multimedia Materials
 - 9.6.6 Internet
- 9.7 Let Us Sum Up
- 9.8 Answers to Check Your Progress
- 9.9 References and Suggested Readings

9.1 INTRODUCTION

Every human being does some activities which involve some forms of exchange for survival. Some exchanges involve money and many others do not. When we buy milk, we use money - currency and coins. It is common among farmers in India to exchange their labour by working on others' farms. Economics is a social science which deals with the study of our society and human behavior involving a variety of these exchanges. In this unit, you will begin to know pedagogical dimensions of economics.

9.2 OBJECTIVES

After going through this unit, you will be able to:

- explain the term 'economics';

- describe the way economists engaged in their profession – their method of inquiry;
- discuss objectives of teaching economics in schools;
- describe different methods required to teach economics; and
- enumerate important sources of economics knowledge.

9.3 ECONOMICS: NATURE, SCOPE AND METHOD

9.3.1 What Economics is About?

Social scientists define the term ‘economics’ in different ways. These definitions are not only controversial and not accepted by everyone but also keep changing. This is because economics is a subject which everyone wants to understand his or her own way. It is also due to complex nature of production and exchange systems prevalent all over the world. Economics is also the youngest subject among social sciences and is evolving over the last two and a half century.

Economics has different schools of thought and is deeply rooted in politics. We have classical, neo-classical, Keynesian, post-Keynesian, Marxian, Austrian, institutional, evolutionary and feminist schools of thought. Economists, who deal with the economic aspects, define and use the term, “Economics” based on the school they support and follow while doing economics.

Suppose you type ‘what is economics’, in Google search engine in the internet (<https://www.google.co.in>), the following text appears.

“the branch of knowledge concerned with the production, consumption, and transfer of wealth.”

American Economic Association, one of the world’s oldest association of economists provides the following as the definition of economics in their website (<https://www.aeaweb.org/students/WhatIsEconomics.php>):

“Economics is the study of how people choose to use resources.”

The website also presents definitions of three popular economists.

“Economics is the study of people in the ordinary business of life.”
(Alfred Marshall, *Principles of economics; an introductory volume*, Macmillan, London, 1890)

“Economics is the science which studies human behavior as a relationship between given ends and scarce means which have alternative uses.”
(Lionel Robbins, *An Essay on the Nature and Significance of Economic Science* MacMillan, London: 1932)

Economics is the “study of how societies use scarce resources to produce valuable commodities and distribute them among different people.”

(Paul A. Samuelson, *Economics*, McGraw-Hill, New York, 1948)

What do you find common in these definitions? Economics is a social science which means the behavior of human beings in society is studied in this subject. Four major areas – production, distribution, consumption and exchange of goods and services form the scope of economics. The economic tools are applied in a wide variety of situations by economists. Economists are a group of social

scientists who study a variety of issues happening in the society. They study different aspects of economics – microeconomics, macroeconomics, fiscal economics, development economics, international trade, etc. This is similar to what is happening in other fields. Earlier most of the doctors we used to go for treatment were General Practitioners - doctors holding only M.B.B.S. degrees. Now when we go to hospital, we look for specialists – Orthopedics, Pediatricians and Cardiologists, etc. As more new activities emerge in the economy, the tasks of economists also become highly specialized. Earlier learning economics required learning history, logic, philosophy, now economics students study mathematics, computer programming, psychology, etc.

Check Your Progress 1

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

1) Why is the word ‘scarcity’ emphasized in economics definitions?

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2) Give two examples of transactions involving exchange.

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3) Who are economists?

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9.3.2 What Economists Do and how?

“Economics is what economists do” Jacob Viner, an economist said long ago. Working as an economist requires certain knowledge and understanding of economic theories and the functioning of economies. An economic theory is broadly defined as a “broad statement that embodies a meaningful relationship between observed economic events.” Economy is a hypothetical space in which we do works to produce and consume goods and services.

We buy vegetables from markets. Why prices of tomatoes, onion and others are not only different but also change daily? There are hundreds and thousands of goods and services sold and purchased in India whose prices are determined differently. How do we understand this? Suppose you produce a new commodity and wish to sell in the market. How do producers know how much to produce and at what price? Governments are required to understand the economic activities in their territories. How do they come to know about the demand, supply and price levels of commodities and services exchanged in different markets? Producers of goods and services also wish to predict the demand, supply and price levels like the way meteorologists forecast weather and rainfall. For this purpose, economists provide us with the Theory of Consumer Behaviour. This is an example of an economic model. When models become more popular and widely used, they become theories.

Every economic theory pertains to the general behaviour of groups and institutions because they reflect elements common to many specific situations. The economic theories do not purport to describe the behaviour of specific persons or institutions but they can frequently predict how a group reacts under a given set of circumstances. Economic theories also help us understand and make tentative statements about the behaviour of an economic system or economic events. For all these, economists use one assumption - '*other things being equal*', to put it in popular Latin phrase, *ceteris paribus*. It is similar to controlled experiments done by physical and biological scientists.

R.G. Lipsey and K.A. Chrystal, two popular economics textbook authors suggest that each economic theory is based on certain logic and has specific form whose structure is built using concepts and assumptions. Learning economics requires understanding of these basic structures, concepts and assumptions of economic theories.

In recent times, economists use mathematics, statistics and logic to develop models. One well known economist A.C. Chiang says that building economic theories mathematically has the following advantages: (i) the 'language' used is more concise and precise; (ii) there exists a wealth of mathematical theorems at our service (for drawing conclusions on the basis of logical reasoning); (iii) it forces us to state explicitly all our assumptions as a prerequisite to the use of the mathematical theorems. This keeps us from the pitfall of an unintentional adoption of unwanted implicit assumptions; and (iv) it allows us to treat the general and variable case. However, a few economists all over the world are skeptical of Chiang's view.

Not all assumptions are realistic in economics. Yet the models are based on such assumptions "open door to powerful insights" into the behaviour of the economic system or economic relationships. For instance, a perfectly competitive market form does not exist in reality. Yet we should understand its features and implications as it is the most efficient market structure. A deep understanding of perfect competition allows us to compare and contrast other market structures like monopoly, oligopoly, monopolistic competition, etc. in terms of price and output efficiency.

Economics contains technical terms or jargons. Lipsey suggests that these are required as "brevity of expression" and are essential as the subject grows and expands. Let us take a few examples. What is the meaning of the term, "eat"? It

is to “put food materials using our hands into mouth, eat and swallow it.” One word, ‘eat’ conveys the intention of 12 words. Technical terms help in understanding complex nature of economic systems. Words we use in our daily lives have different meaning in economics. For example, the term, “demand” may mean “to ask” in common parlance. In economics, it means “a consumer’s desire and willingness to pay a price for a specific good or service”. When several ideas are combined in a logical fashion in a model, the use of concepts and jargons becomes inevitable for precise expression.

Economists study the behaviour of human beings which can neither be controlled nor be predicted. This also means, we allow for a large element of unpredictability. Yet, we live in societies in which human beings behave mostly in an orderly manner. Economists use this orderly behaviour to generalise and predict many economic aspects and outcomes.

Learning economics requires understanding of economic phenomena - relationship between various economic aspects of an economy. For this, economists gather, measure and analyse economic information. Since people’s economic behaviour frequently manifests itself in measurable ways, the behaviour is coded and tabulated. They result in tables and large sets of numerical data which then are interpreted. These activities help to understand the dynamics of a particular economic phenomenon of the group of households or an enterprise but also lay the foundations for learning economics.

Economics contain some concepts and propositions about which we have to be careful while generalising about them. We know that saving is good for us. However, this is not good for the country as a whole. If all the people save, there will be shortage of goods and services and the economy will not grow. This is called ‘Fallacy of composition’. What is good for an individual need not be good for the whole economy. Similarly we should be careful in generalisation. For example, when an individual spends more than what she earns, she may go bankrupt. This does not mean that if the government is spending more than its revenue, it need not lead to loss. Rather it was proved that there is nothing wrong if the government spends more for the welfare of the people. This is called ‘False analogy’. We need to be careful on the sequence or the ‘cause and effect’ of economic events. Suppose the Government of India reduces taxes to increase employment and stimulate the economy. This leads to reduction in unemployment and a rise in the gross domestic product. We cannot conclude that tax reduction leads to India’s economic recovery. This might have gathered momentum prior to tax cut and it could have been merely coincidental. We need to look at all the factors holistically before coming to any conclusion.

Check Your Progress 2

- Note:** a) Write your answers in the space given below.
b) Compare them with those given at the end of the unit.
- 4) How do economic theories help to understand society?

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5) Why are assumptions necessary in economics?

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6) Write two advantages of using mathematics in economics?

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7) List three important precautions in learning economics.

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9.4 WHY TEACH ECONOMICS: CURRICULAR OBJECTIVES IN ECONOMICS

Economics is taught in most countries including India from classes 6 to 10 as part of social sciences. At the higher secondary stage, it is taught as an optional subject.

Indians vote at 18 years, just after completing class 12. Every Indian citizen is expected to understand the economic life and changes happening around us. Since Independence, India has undergone tremendous changes on the economic front. In the initial years, governments, both central and state governments took initiative to set up large industries, built infrastructure such as roads, hospitals, schools, run transport services such as railways, airways and bus transport corporations and supported private sector by protecting them from foreign competition and ensured their survival and growth. In 1990s, this approach was changed. Private sector has been allowed to establish large scale industries. Government began withdrawing from many economic activities. Public sector companies are being privatized. India has one of the largest systems of private provisioning of services in the world. Many activities which were not sold earlier are now available in markets as services. For example, for long, government provided safe drinking water and now drinking water is sold for billions of rupees.

Scholars working in various fields and education policy documents provide the rationale for teaching various subjects in schools. For example, the National Curriculum Framework (NCF) 2005 brought out by the NCERT lists the following as the objectives of teaching economics for classes 9 and 10.

- To enable students to trace the chain of activities in which human beings are involved to make a living.
- To help students to understand the normative nature of economics and the role of economic policies in our lives.
- To enable students to know that economic problems can be and should be viewed from different perspectives.
- To equip the students in acquiring analytical skills and develop perspectives.
- To sensitise students from gender perspective.

In classes 11 and 12 students learn economics as an optional subject. Students are exposed to topics from microeconomics, macroeconomics, development economics and international trade, economic issues of India and states. The following are the objectives of teaching economics at this level.

- To help students understand some basic economic concepts and develop economic reasoning which they can apply in their day-to-day life as citizens, workers and consumers.
- To help students realise their role in nation building and sensitise them to the economic issues that the nation is facing today.
- To equip students with basic tools of economics and statistics to analyse economic issues.
- To develop an understanding so that they can present more than one view on any economic issue and argue logically with reasoning.

Many international boards offer economics courses in Indian schools. International Baccalaureate, for example, offers Diploma Programme in Economics equivalent to that of Indian higher secondary stage. It lists the following as the objectives of teaching economics.

- To encourage the systematic and critical study of human experience and behaviour; physical, economic and social environments; and the economics and development of social and cultural institutions
- To develop the capacity to identify, analyse critically and evaluate theories, concepts and arguments about the nature and activities of the individual and society
- To enable students to collect, describe and analyse data used in studies of society; test hypotheses; and interpret complex data and source material
- To promote an appreciation of the way learning is relevant to both the culture in which the student lives and the culture of other societies
- To develop an awareness that human attitudes and beliefs are widely diverse and that the study of society requires an appreciation of such diversity
- To enable students to recognize that the content and methodologies of economics are contestable and that their study requires the toleration of uncertainty.

The economics syllabus and textbook contents are based on these curricular goals. Teachers are expected to use curricular materials to help students realize these goals. For example, while teaching topics such as poverty, we need to help students use scientific methods to understand poverty, to critically examine the steps taken by the government to reduce poverty levels in the economy and to develop empathy with the poor. While developing the teaching plan, these objectives need to be stated both implicitly and explicitly.

Check Your Progress 3

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

8) Why are objectives of teaching economics necessary?

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9) What are the differences between objectives of teaching economics of NCF 2005 and those of IB?

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10) The following table contains a list of topics in economics syllabus and curricular objectives. Match the topics with objectives. One objective can be considered for more than one topic as well.

Topic	Curricular objectives
1) Food security	A) Understand economic policies
2) Privatisation	B) Understand basic economic concepts
3) Three Sectors of Indian economy	C) Understand various perspectives
4) Gross Domestic Product	D) Equip with basic tools of economics
5) Consumer Rights	E) Equip with basic tools of statistics
6) Poverty	F) Develop analytical skills
7) Factors of Production	G) Understand India's challenges

9.5 TEACHING LEARNING METHODS IN ECONOMICS

Economics gives scope for teachers to bring in a variety of examples from our daily lives. Different approaches can be followed to teach economics topics.

9.5.1 Lectures

“Some people talk in their sleep. Lecturers talk while people sleep” said Albert Camus. Lecture, though criticised all over the world, is the predominant method teachers use to teach economics. Lectures are used to communicate a set of information to a particular group of audience. Teachers planning to deliver a lecture generally come with a set of notes – detailed or hints. This also means that teachers have to read the prescribed textbooks, refer to other materials, and takedown notes by prioritizing information – write them down one followed by the other using our own reasoning, what is to be spoken under each topic and sub-topic.

In colleges and universities, teachers take long time to deliver lectures. Teachers in schools have 35-45 minutes to deliver their lectures. Lecture method in schools mean teachers’ talk time is more than that of students. To avoid monotony during economics lectures, teachers encourage students to ask questions, bring newspaper clippings, reports, etc. other than textbooks to the classroom. These days, teachers use power-point presentations to deliver the lectures. PPT-based lectures save considerable time required for writing on the blackboard. Smart boards are also used to deliver lectures effectively. Students’ attention move between what is shown in the blackboard, LCD screen and teacher’s voice. Students also get a considerable amount of diversion in the PPT based lectures.

Two limitations of lectures are: (a) the teacher may not be able to give individual attention to students and (b) when lectures are long, students find difficult to pay attention to lectures.

9.5.2 Discussion

The National Curriculum Framework (2005) suggests that we need to connect textbook knowledge and syllabus with life outside classrooms and schools. Discussion is one important method to achieve the NCF 2005 goals. Many economics topics provide scope for students to share their lived experiences during discussion.

Discussion helps students to examine their own assumptions and knowledge critically. Teachers conducting discussion focus on students’ reasoning; point out common errors in the reasoning; and help them recognize simple and high-level reasoning. When considerable amount of issues are to be discussed by students, teachers identify students who can contribute with more details first and acknowledge them in the class rather than encouraging all students to speak. When students monopolise the discussion, teacher intervenes.

If the number of students is large in the class, teachers pair up them to discuss a question for five minutes and then bring them back for a whole-class discussion. This leads to each student’s participation and exposure to other students’ ideas. Some teachers also form two students groups for first discussion round and rotated

partners for every new problem or example. Another variant of this method is to use pyramid structure; in the first round two-students groups are formed; then four-student groups are formed to discuss the same issue and followed by eight-student groups. This can be done all the way up to the whole-class discussion. This format is useful if the topic has many levels of discussion. Generally more complex issues are discussed in small groups. In the whole-class groups, students can discuss their reactions, share their new ideas and build on each other's views expressed during discussion.

In the whole class discussions, when students make a claim, teachers ask the evidence or logic and ask the whole class to evaluate it. They talk a little and encourage students who disagree to identify the source of disagreement. Teachers encourage students to talk to each other. They neither contribute on their own, nor take a stand. At times they encourage students to participate in the discussion.

Adolescent learners are at times emotionally charged while discussing an issue. If the teacher finds the discussion not manageable or unproductive, he/she needs to intervene. If it turns into a personal attack, the teacher can refocus the class and convert the discussion to reflect on the incident as a writing assignment.

9.5.3 Problem-based Learning (PBL)

In problem-based learning, economics teachers pose a problem to each group of students and facilitate them to find solutions. This was initially used in medical, healthcare and education sectors during 1960s and now widely used in other subject areas. The solutions students come out with and all the procedures they follow become part of their learning.

It should be noted that economic issues at the national level are not that simple to be solved by school students. Even for an individual, it may be challenging to find solutions. For example, a student finds her family having a very low income. She cannot easily find solutions to the family's income needs as that requires parents to take up jobs with high income which may not be easy. Analyzing the problem and trying to understand its causes and consequences are more than sufficient. The PBL classrooms provide students opportunities to research a variety of materials; develop appropriate lines of enquiry so that they could come out with solutions. In this process, students come to know complexities involved in finding solutions, the need for understanding socio-historical, political and geographical issues. This approach is useful for courses on economic issues and not suitable for teaching theories.

9.5.4 Simulation Games in Economics

Simulation games bring students and teachers to understand economic theories using reality-show like situations. In simulation games, the students are involved as players and participate in the game actively. This require certain structural features – space to play, rules to be followed, materials to play the game, players, and so on. There could be some winners and losers in the game as well.

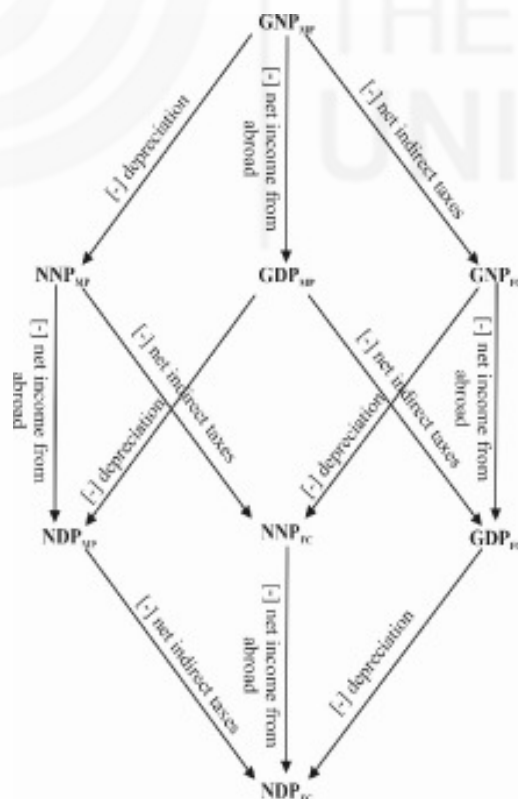
Simulation games are played to help students understand economic concepts. Economic concepts deal with a variety of economic activities performed by individuals or group of individuals. Economists evolve games simulating the reality situations. Game designers suggest the following steps to engage in a game.

- i) Formulate learning objectives – which economic concept to be learned could be clearly recognised. In some games, more than one concept is involved. They also need to be listed.
- ii) Plan the game which involves formulation of rules, formation of groups, number of students in each group, roles of individuals in each group, material required and arrangement of furniture etc.
- iii) Role of teacher– though economics games do not usually require umpires like in physical games, teacher has to organise the whole game –plan in advance, estimate the time required, procure materials required, assign roles to each individual participating in the game, explain the rules to the players, write down the outcomes or results, intervene if there is any clarity required.
- iv) Debriefing is generally done after the game is played. The teacher can then bring back students to the learning objectives and pose questions on the concept.

Internet contains many games and some of these games are also played online. These days simulation games such as MONOPOLY are also played by young children. Teachers can identify the game and modify depending upon the concept to be taught.

9.5.5 Learning through Concept Maps

We are generally interdependent. Social science concepts are required to understand the society in which we live. The relationship between concepts may be of different types. Concept maps help in organizing and depicting these relationships in the form of diagrams. In concept maps, concepts are enclosed in circles or boxes and the relationship between concepts are indicated by connecting line or cross link line. Words are specified on the connecting lines or cross link line to describe the nature of relationships. Concept maps are represented in a hierarchical fashion with most inclusive general concepts at the top part of the map.



The order of the hierarchy depends on the nature of relationship required to answer the question.

Look at the following concept map pertaining to a topic, *National Income Accounting*, in class 12.

The first requirement of a concept map is to develop question. This is followed by the identification and listing of concepts required to answer the focus question. While discussing the concept, students, by providing examples from real life and in textbook contents, suggest many more relationships between various concepts given in the concept maps. This helps them understand economic concepts better.

9.5.6 Projects

Economics gives considerable scope for assigning project activities to students. Project work requires in-depth investigation by the students under subject teachers' supervision. It helps student in many ways even after completing the schools. Students study different topics in textbooks as part of the syllabus. Project work train students to learn to work on a particular economic question or issue they are interested in. They are required to think like an economist and do research – develop questions and questionnaire, collect and analyse data and investigate the particular economic question. Projects encourage students to learn to think critically. Projects give opportunity to apply skills they learn different subjects including mathematics and languages. Project works also help students to learn skills from outside classroom – using computers, talking to people to collect data and negotiate with team members. Teacher supervision on a continuous basis helps to acquire research skills. Students also develop communication and presentational skills which are beyond traditional examination system.

9.5.7 Field Visits

Economics teachers encourage field visits for different purposes as part of school curriculum. Topics such as banking, employment, agriculture, markets can be taught better using field visit. Field visits are also conducted to collect data from outside the school – households, shops, and other establishments. Field visits help students to understand how economic activities are performed.

9.5.8 Data Analysis and Interpretation

Questions arise in economics are understood and solved on the basis of data collected from households and firms. Look at Table 1. Data of this kind form the core of economics.

Table 9.1: Key Indicators of Indian economy

Indicator	2012-13	2013-14	2014-15	2015-16
GDP Growth (%)	5.6	6.6	7.2	7.6
Growth of electricity Generation (%)	4.0	6.0	8.4	4.4
Fiscal Deficit as a % of GDP	4.9	4.5	4.0	3.9
Export Growth (%)	-1.8	4.7	-1.3	17.6
Export Growth (%)	0.3	-8.3	-0.5	-15.5

Source: Economic Survey 2015-16, vol.2, Government of India, p.2.

Economics students are expected to understand how this kind of data is collected and what this data depict about the economic development. Economic data are of different kinds – cross sectional data, time series data, qualitative and quantitative and so on. Data analyses include use of statistical tools to understand and arrive at conclusions about economic aspects. Data analysis helps students in understanding the economic phenomenon given in the form of numbers, summarises the data, identifies and establishes relationship between different economic aspects, compares various economic variables. While teaching economics teachers use a variety of economic data, analyse them and interpret the findings.

9.5.9 Peer and collaborative methods

In these methods, students are given more autonomy to learn economics. These methods view that knowledge is social construct and teachers help students to bring out knowledge from themselves. In collaborative learning method, students in small groups discuss concepts pertaining to a particular economic issue and find solutions or develop understanding. Peer learning, one form of collaborative learning method, requires student of similar age and grade work with other students in understanding of concepts.

9.5.10 Document analysis

Though this activity is predominantly used in subjects such as history, in recent times students are expected take up this activity to explore official documents such as Economic Survey, Census of India, Human Development Report, and Budget Reports and so on. Many of these reports are published annually. Economics students get the first person insight into economic data in these reports.

Check Your Progress 4

Note: a) Write your answers in the space given below.

b) Compare them with those given at the end of the unit.

11) How are lectures different from discussions?

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12) The table contains few economics topics. Fill up the appropriate method you will use to teach these topics?

Sl. No.	Topic	Method
1	Theory of Demand	
2	Estimation of GDP	
3	Index Numbers	
4.	Measurement of Poverty	
5	Globalisation	
6	Consumer rights	

13) Field visits are useful only for subjects such as history. Do you agree with this statement? Explain.

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9.6 TEACHING LEARNING RESOURCES

9.6.1 Textbooks

Textbooks are the major source of teaching-learning material for a majority of students and teachers in India. Economics textbooks are different from other subject textbooks. They provide learners basic understanding of concepts. Textbooks are different from guidebooks which provide only answers to questions. Textbook contents are organised and presented keeping in view of the subject requirements, learners' age, grade and cognitive abilities. Textbooks recommended by examination boards or written by government agencies are used as benchmark for examination purposes. Questions in Board examinations and answers by examinees are verified on the basis of what is given in textbooks. Textbooks work as benchmark for teachers. For example, the economics syllabus may include topic 'development', but millions of pages have been written on this topic and available for teachers. A textbook chapter with 15-20 pages on the topic help teachers how much to be taught.

9.6.2 Supplementary Reading Materials

Economics textbooks may contain topics from different areas. Any economics textbook, covering a large number of theories and topics, can provide only basic framework for understanding a limited number of concepts or topics. Supplementary reading materials help students and teachers who wish to know more about the topics. Books published by government agencies such as National Book Trust (NBT), New Delhi and other private publishers are some examples (See also Suggested Readings).

9.6.3 Charts, Diagrams and Graphics

Economic statistics is one of the major source of learning economics. They are mainly available in the form of large tables. Since students can understand any content in the form of visuals much better than the tables containing so many numbers, economics teachers using knowledge of statistics convert these into different charts. Look at the Figure 9.1.

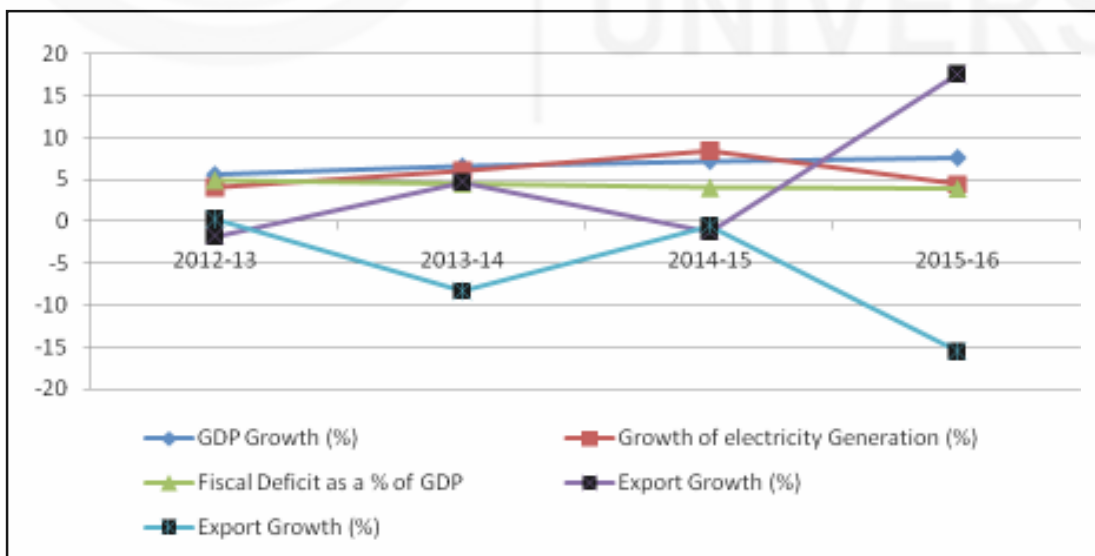


Figure 9.1: Key Indicators of Indian Economy, 2012-16

You will notice that charts help not only to know the data but also help to interpret the data. In order to present economic information to learners, computer software is used to develop this kind of charts which form of part of graphics.

9.6.4 Newspaper, Radio and Television

Economic information on economic activities of governments and private organisation are mainly available in newspapers, radio and television. For example, when union government plans and presents budgets every year, all the media widely cover the details of priorities of government and its economic policies. Media also report the performance of various private companies as people have invested their savings in stock markets. Teachers by guiding students to read, watch and collect the economic information and connect textbook concepts with in real life economics.

9.6.5 Multimedia materials

For a very long time, cinema and media were the major source of additional information for students. The revolution in the information and communication technologies led many government and private organisations coming out with CDs, DVDs on specific economics contents. For example, the Central Institute of Educational Technology, New Delhi brings out such multimedia materials for use in classroom. Individual media houses also publish multimedia materials.

9.6.6 Internet

It may not be over-exaggeration if one says that almost all the global knowledge for learning economics is available in internet. Important writings of economists during the last 250 years are available in digital form. Most textbooks are now published as hard and soft copies. Internet has become a major source of learning economics. Internet not only contains text materials but also multimedia materials, lectures and talks by economists. All the economic policy documents are available in the internet. Statistics and reports of government agencies are available in the internet. Most private companies provide their details in the internet. In fact, economics teachers role become crucial to help students recognize authentic knowledge available in the internet.

Check Your Progress 5

- Note:** a) Write your answers in the space given below.
b) Compare them with those given at the end of the unit.

14) Why are textbooks important?

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15) How are textbooks different from media?

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16) List three reasons for watching television to learn economics.

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17) Distinguish between supplementary reading materials and textbooks.

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9.7 LET US SUM UP

Economics is defined by economists in different ways depending upon their belief systems. Important aspects in-built in these definitions are production, consumption, distribution, and exchange. Learning economics require careful reading of various economic models. These models are based on a few assumptions and built using mathematics. Teachers need to be careful of three aspects in economics viz., false analogy, fallacy of composition and cause and effect relationship between economic aspects. The curricular objectives are closely related to national goals of India and global citizenship. Teachers depending upon the topic can choose teaching methods. Since economics is dealing with many aspects of our daily life, media, besides other teaching learning materials can improve our understanding of economics.

9.8 SUGGESTED REFERENCES AND READINGS

- Bhaduri. Amit, (2010). *Development with Dignity*, New Delhi: National Book Trust.
- C. Modgal, Suresh (2014). *Food Security in India*, New Delhi: National Book Trust.

- Dey. Wikhil, Dreze. Jean, Khera. Reetika, (2008). *Employment Guarantee Act: A Primer*, New Delhi: National Book Trust.
- Gregory Mankiw (2011). *Principles of Economics*, Sixth Edition, Cengage Learning.
- NCERT (2006). *Economics*, Social Science Textbook for class 9, New Delhi: National Council of Educational Research and Training.
- NCERT (2006). *Understanding Economic Development*, Social Science Textbook for class 10, New Delhi: National Council of Educational Research and Training.
- Paul Samuelson and William Nordhus (2009). *Economics*, 19th Edition, Mc-Graw Hill Education.
- ***Business Newspapers***
- ***Business Magazines***
Economic and Political Weekly
- ***Business Television Channels***
- ***Websites***
www.india.budget.nic.in
www.nitiyaayog.gov.in
<http://nroer.gov.in>
<https://ideas.repec.org/>
<https://ruralindiaonline.org/>
<http://www.econlib.org>
www.economicnetwork.uk
<http://serc.carleton.edu/econ/index.html>
<http://www.tutor2u.net>

9.9 ANSWERS TO THE CHECK YOUR PROGRESS

- 1) Resources required for production of goods and services are not plenty.
- 2) (a) labourers working on others' fields for remuneration; (b) buying pen and pencils in a stationary shop by making payment
- 3) Social scientists who study about production, distribution, consumption and exchange using models and theories.
- 4) Economic theories help to understand relationship among various economic events and factors operating in the society.
- 5) Assumptions are conditions for understanding the functioning of set of economic factors. They help in recognizing set of behaviours of economic systems among others.
- 6) (a) language used is more precise and concise; (b) helps in drawing conclusions based on logical reasoning.
- 7) (a) false analogy; (b) fallacy of composition; (c) recognize the cause and effect relationship among economic events.

- 8) They work as national goals every country wish to achieve. Objectives are also required to develop syllabus and textbooks and organize curricular activities.
- 9) NCF 2005 objectives discuss mainly the national development goals whereas IB objectives intend to develop global citizenship and learning to live within the nation as well.
- 10) 1- A & G; 2 – A & C; 3-B & F; 4 – B; 5 – C & G; 6 – A & G; 7 – B & F
- 11) Lectures involve teaching to talk more whereas in discussions, teachers facilitate students to share their views.
- 12) 1& 2 - Lectures; 3 – Lectures and discussion; 4 – Problem based learning and projects; 5 – Discussion; 6 – Problem based learning and projects
- 13) No. Economics also provides students scope to observe economic aspects at workplace, banks, factories, shops and other places. Students can talk to people engaged in various economic activities to understand economic life.
- 14) Textbook contents work as benchmark knowledge for teachers. Examinations are based on textbook contents.
- 15) Textbooks provide basic idea about concepts pertaining to a specific subject area. Knowledge acquired through media supplement the basic knowledge introduced through textbooks.
- 16) (a) increase our economic understanding; (b) update of what is happening in economic front; (c) develop sensitivity towards economic issues
- 17) Textbooks provide only basic idea of specific concept or economic issue. Supplementary reading materials increase our understanding of those basic issues studied in textbooks as part of classroom learning activity.

