INTRODUCTION:

Social Science is a compulsory subject up to secondary stage of school education. It is an integral component of general education because it helps the learners in understanding the environment in its totality & developing a broader prospective. This is of crucial importance because it helps them to grow into well-informed & responsible citizens with necessary attributes & skills for being able to participate & contribute effectively in the process of development & nation building.

OBJECTIVES OF TEACHING GEOGRAPHY:

- Demonstrate the knowledge of & an ability to apply appropriate geographical methodologies & techniques relevant to geographical inquiry.
- Understand the use of human & physical resources & evaluate the management strategies involved.
- To recognize & appreciate the interaction between people, place & environment.
- To demonstrate to know & to understand spatial processes, patterns & interactions& be able to recognize change at various scales & locations.

LEARNING OUTCOME OF THE CONTENT:

Resources and Development will enable the learners to

- Know the meaning of resources, their variety, location & distribution.
- Understand the importance of resources in our life.
- Appreciate the judicious use of resources for sustainable development.
- Develop awareness towards resource conservation & take initiative over conservation process.

ETHICS OF LEARNING GEOGRAPHY:

Learning to know

- The primary purpose of geography is to help the students to develop the ability to make informed & reasoned decisions. The ultimate goal is to provide opportunities to provide students to learn about the decisions of the past so that they will be able to formulate knowledgeable responses to problems now confronting them, the state the nation & the world.

Learning to do

- Geography is the study of planet earth. When we study geography we look at where things are& their natural surroundings. Let's discuss some geography questions.

Where are we?

- What impact had people had on where you live? (Decide whether you live in a city, the suburbs, town or a country)
- How do things-people, goods, and information move to you where you live? If you look at the whole earth, how do you divide it to study-by location on map, by languages spoken, by weather or by biodiversity?
- What does it mean to live in a global society? (Make a chart of the things that are happening in other parts of the world that affect you)

Learning to be

- To promote innovative, creative & collaborative research as well as critical evaluation on learning geography.
- To examine the ways in which new technology can be used in the secondary geography classroom to enhance the learning process.

Learning to live together

- Globalization: learning through geography the interconnectedness of people & places through converging process of economic, political & cultural change.
- Dealing with converging currents of globalisation, global transport & homogeneous global consumer culture through geography.

CHAPTER 1 : RESOURCES & DEVELOPMENT

Important Terms

- **Resources.**
  Objects or things in the environment that fulfil the basic needs of man. There are technologically accessible, economically feasible and culturally acceptable.

- **Natural Resources.**
  Resources which are endowments/gifts of nature like rivers, Mountains, forests, etc.

- **Resource Development.**
  An exercise that makes it possible to utilise the available natural resources for human satisfaction.

- **Biotic Resources.**
  Resources obtained from biosphere or living things like plants, animals and human beings.

- **Abiotic Resources.**
  Resources available from non living things like rocks, mountains, rivers, etc.

- **Renewable Resources.**
  Resources which can be used again and again and are inexhaustible. e.g., forests, wildlife, water, etc.

- **Non Renewable Resources.**
  Resources which cannot be used again and again and are exhaustible like minerals.

- **Individual Resources.**
  Resources owned privately by individuals.

- **Sheet Erosion.**
  Erosion of the top soil along gentle slopes caused by rain water.

- **Gully Erosion**
  Erosion predominant along steep slopes caused by the action of rainwater.

- **Badland.**
  Land consisting of numerous gullies and ravines.

- **Leaching.**
  Process of carrying away of soil due to excessive rainfall

- **Stock.**
  Materials in the environment which are capable of satisfying the basic -needs of man but are not developed due to lack of technology.

- **Resource Planning.**
  Strategy for ematic and planned utilisation of resources for sustainable development.

- **Land Use pattern.**
  Land utilisation data available for a country during a given period.

- **International Resources.**
  Resources which are commonly shared between countries of the world and are owned and controlled by international organisatrons.

- **Potential Resources.**
  Resources which are estimated in terms of their availability but will be developed in the near future.

- **Contour ploughing**
  Ploughing along the contour lines can decelerate the flow of water down the slopes. This is called contour ploughing.

- **Strip cropping-**
  Large fields can be divided into strips. Strips of grass are left to grow between the crops. This breaks up the force of the wind. This method is known as strip cropping.

- **Shelter belts-**
  Planting lines of trees to create shelter also works in a similar way. Rows of such trees are called shelter belts.

Classification of Characteristics of different soils of India

Type	Formation	Location	Main Contents	Deficient Contents	Main Features	Crops
Alluvial Soil (Transported Soil) (Bangar and Khhadar)	Silt brought by rivers during the course of their long journey.	River valleys (Ganga, Brahmputra) Deltas of Godavari, Krishna. Coastal strip of Peninsular India Punjab, Haryana, U.P., Uttaranchal, Bihar, West Bengal.	Potash, Lime	Organic and nitrogenous contents	Very fertile, coverse 40% area of India.	Rice, Wheat, cotton, Oilseeds, Sugarcane
Black Soil (Regur Soil)	Weathering of volcanic (basalt) rock formed by the Deccan lava.	Deccan plateau, Valleys of Godavari, Krishna, Narmada and Tapi. Maharashtra, Gujarat, Andhra Pradesh, M.P., Tamil Nadu.	Rich in lime, iron, potash magnesium, alumina, calcium	Lacks nitrogen and humus.	Self-ploughing quality, holds moisture when wet.	Cotton, Tobacco, oilseeds, Sugarcane
Red Soil	Decomposition of metamorphic rocks.	Eastern parts of Deccan Plateau, Kerala, Southern States of Tamil Nadu, Chhotanagpur Plateau.	Rich in iron.	Phosphorus, nitrogen, humus and lime.	Coarse, porous, does not retain moisture, requires fertilizers.	Wheat, Rice, Cotton, Pulses, Sugarcane
Laterite Soil	Formed by intense leaching due to heavy rains.	Hill summits of (Eastern, Western Ghats), Assam Hills.	Rich in iron.	Potassium, lime, silica phosphdric acid, nitrogen	Acidic, porous, and coarse.	Coffee, Rubber, Topioca. Cashew

Desert Soil	Mechanical weathering of rocks form sands.	North western parts of India, States of Rajasthan, Northern Gujarat, South Punjab.	High proportion of salts.	Organic matter	Loose, porous, and coarse.	With irrigation Wheat, Bajra, Melon, Grams.
Mountail Soil / Forest soil	Weathering of rocks by wind and weather.	In mountainous regions, Meghalaya, Arunachal Pradesh, Uttaranchal, Himachal Pradesh and Jammu & Kashmir.	High deposition of organic & mineral Substances .	Humus.	Sandy, gravel, porous, heterogenous in nature	On terrace farming fruits, vegetables and rice are grown.

Model Answers

1 Mark Question

Q1. Write any two characteristics of resources.

Ans. (i) Resources have utility or in other words, they are very useful for man.

(ii) They help us to create goods and provide services.

(iii) Resources are, however, in very limited quantity and one has to make efforts to make use of them and create various things of utility.

Q2. Which region is known for black soil ?

Ans. Black soils are found in certain parts of Maharashtra, M.P., Gujarat and Tamil Nadu. Deccan trap region, spread over deccan plateau and also covers plateau of Maharashtra, Saurastra.

Q3. Where are the laterite soils found in India ?

Ans. They are commonly found in the hilly and upland parts of Western Ghats, Chotta Nagpur Plateau, Shillong Plateau, Parts of Tamil Nadu, Kerala and Orissa.

Q4. Write two characteristics of alluvial soil ?

Ans. (1) Alluvial soils are the most widespread soils in India.

(2) They were made by deposits brought down by the rivers year after year.

(3) These soils are very fertile, as such, they are very suitable for cultivation.

Q5. What is soil erosion ?

Ans. Removal of soil, especially of top soil naturally or as a result of human activity is called soil erosion.

Q6. How can we conserve our resources ? (Any 2 points)

Or

Suggest different methods of conserving our resources.

Or

How can we plan our resources ?

Ans. Ways of Planning or Conserving our Resources :

(1) Watery, and marshy lands should be reclaimed and the available land should be put to optimum use.

(2) Rivers may be linked to each other and if desired their direction be changed so that not a drop of water goes waste into the sea. The waste water from the factories be recycled to be used over and over again.

(3) The non-renewable resources like different minerals require a special attention.
Wastage during mining and processing should be reduced to the minimum.

(4) Where possible, alternative products such as wood and plastic should be used.

(5) Another methods of conserving the limited mineral resources is the use of scrap. Scrap should be recycled so as to prolong the life of our limited metallic mineral resources. For example, iron scrap should be processed into steel.

(6) New methods & techniques can be devised for utilizing ores of lower grade.

(7) We should use the available stock of mineral wealth most judiciously so that the coming generations are not deprived of the benefits of the mineral resources.

Q7. Distinguish between the Renewable and Non-Renewable Resources ?

Ans.

Renewable Resources	Non-Renewable Resources
(1) They are those sources which may be obtained continuously year after year for the satisfaction of human needs, such as land, water and plants	(1) These resources are those which once mined and used can not be regenerated.
(2) These resources do not exhaust.	(2) As for example, coal and natural oil are some non-replenishable because once

			they are mixed and used they cannot be renewed in a short period of time.
(3)	They have the capacity to regenerate themselves. Ex. Water, agriculture, fish and trees are some examples of replenishable resources.	(3)	In fact, all mineral resources are limited in quantity, which cannot be renewed in short period. Coal, mineral oil, iron-ore are non replenishable resources.

4 marks questions:

Q1. What conservative measures would you suggest to check land degradation? (Any four)

Or

Write a short note on Land Conservation Measures.

Ans. **Conservative Measures to check Land Degradation** – Degradation of land is a world phenomenon. If certain countries have successfully adopted various conservation measures to check this evil, we can also do the same and save our land from degradation. Some of these conservation measures are the following :-

1. **Contour Ploughing** – By this method, the fields are ploughed, harrowed and sown along the natural contour of the hills instead of up and down the slopes. This prevents the rainwater from flowing down the hill. It stands in the level furrows and soaks into the ground, so the plants receive more water. This is suitable for afforestation and grassland development work.

2. **Terracing** – By this method, a series of wide steps are made along the slope following the contours. This method is very common in Asian countries in regions of rice cultivation.

3. **Strip – Cropping** – In this method, cover crops, such as grasses and small grains are planted alternatively with cultivated crops. These cover crops, absorp the moisture and hold the surface soil together.

4. **Plugging of Gullies** – This is done by building dams of stones or fixing wire-netting or planting trees across gullies. These measures check the flood waters, and so cause filling of silt in the gullies.

5. **Planting of Shelter Belts** – This measure is adopted in the case of wind erosion. Belts of trees and shrubs area planted to check the velocity of the wind and this stops soil movement.

6. **Cover Planting or Cropping** – In areas, such as plantation, cover crops are planted between the young trees. Leguminous crops are often used because they add nitrogen to the soil and check soil erosion.

7. Other methods which the farmers have been using for centuries are :-

(i) **Fallowing** – This is all leaving the much used land to rest or lie fallow so that he natural forces can act on the soil and regain fertility naturally in two-three years.

(ii) **Crop Rotation** – To grow different crops on the same land. This prevents the crop from exhausting one kind of mineral nutrients in the soil. For example, potatoes require much potash, but wheat requires nitrates. Thus, it is best to alternate crops in the fields.

(iii) **Use of Fertilizers** – Use of fertilizers is another way of soil conservation. Farmers all over the world are now using organic fertilizers.

(iv) **Water Management** – Regulation of water

Q2. How is soil formed? Explain the factors that contribute in the formation of soil ?

Ans. **SOIL FORMATION**

Soil are formed by physical, chemical and organic changes which go on taking place continuously in the layer. The following factors contribute a lot in the formation of the soil :

(i) **Climate** : Climate plays an important role in influencing the decomposition of the rocks to a great extent. As a matter of fact, the quantity of moisture, dryness etc. in the soil depends upon the climate. The soil forming process takes place more rapidly during high

temperatures and heavy rainfall. The division of the soils also depends on the climate.

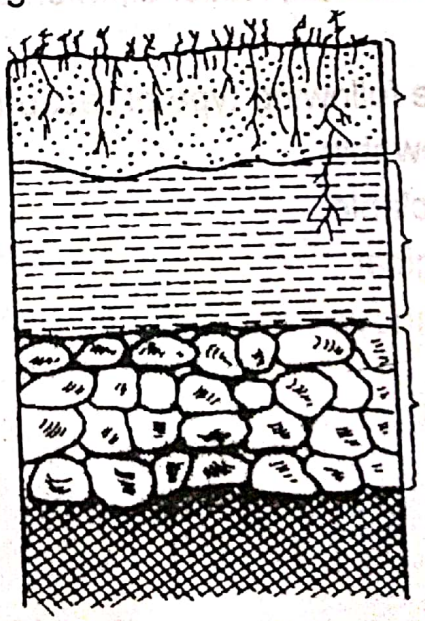
(ii) **The nature of weathered particles :** The nature of weathered particles is another factor responsible for the formation of soil. The physical and chemical composition of these particles determine the relative proportions of different minerals in the soil layers. The particles may be obtained from the weathering of rocks or deposition of material by rivers, winds or other gradational agents.

(iii) **Topography:** The topography of a region also affects the formation of soils. Steep slopes usually have thin soil due to the erosion. Thick fertile soils are developed in the valleys and low lands. Topography controls the state of moisture in the soil layers. In the areas of bad drainage such ad depression soils are not well developed.

(iv) **Time:** Time also plays an important role in influencing soil formation. A rich and fertile soil is formed only when the weathered particles of rocks remain undisturbed at one place for along time. It is only a long span of the time that the action of physical, chemical and organic processes take place and leads to the formation of deep and well developed layers one below the other. During a short period the layers of soil remain immature and thin.

(v) **Soil Profile :** Each type of soil has a well developed vertical section called the soil profile. There are four distinct layers in the soil profile.

(i) The top layer consists of fine particles and organic matter from decayed plants and organism.



WORKSHEET

1 Mark Question

Q1. What can be termed as 'Resource' ?
Q2. What are human made resources ?
Q3. What is Resource Planning ?
Q4. What are the characteristics of Resources ?
Q5. Define Conservation.
Q6. How can resources be classified on basis of exhaustibility ?
Q7. What are stocks ?
Q8. What does Agenda 21 aim at ?
Q9. What did Brutland Commission Report Introduce ?
Q10. What did Rio Convention endorse?
Q11. What is biotic and abiotic resources? Give an example for each.
Q12. Giving a suitable example, explain the meaning of resource development.
Q13. Why are resources necessary for human beings?
Q14. List two problems caused due to indiscriminate use of resources by human beings ?
Q15. Explain the Land use pattern in India?

4 Marks Question

Q1. What are Resources? Why is there a need to plan their use and need to conserve them?
Q2. What is the need for 'Conservation of resources'? Explain in light of Gandhiji's view?
Q3. Discuss in detail the division of resource on basis of stages of development.
Q4. How has our land use pattern been affected by urbansiation. What are the main factors that affect land use?
Q5. How does Industry cause Land degradation? Give four examples of land degradation