CHAPTER 3 MAJOR LANDFORMS OF THE EARTH

A. WITH THE HELP OF YOUR ATLAS IDENTIFY AND MARK THE FOLLOWING IN AN OUTLINE MAP OF THE WORLD.

- a. An old fold mountain range in India. Aravalli
- **b.** A block mountain in Europe **Black Forest**
- c. A storehouse of mineral wealth in eastern India. Chota Nagpur
- **d.** A rift valley in EgyptNile Vallev

B. ANSWER THE FOLLOWING QUESTIONS IN BRIEF.

1. What are Fold Mountains? With the help of a neat sketch, briefly explain their formation.

Fold Mountains are formed when the layers of the earth's crust are folded by compression. The compression is caused by forces generated by movements inside the earth.

2. State two chief differences between old and young fold mountains. Give examples.

Old fold Mountains: These are fold mountains which were formed over 250 million years ago. Old fold mountains have gentle slopes and low altitude due to weathering over time.

Young fold Mountains: These are fold mountains which were formed comparatively recently, about 25 million years ago. They comprise the world's highest mountain ranges. Young fold mountains are rugged and lofty.

3. What are Plateaux? Why are they of great economic value?

Plateaux are the uplifted sections of the earth's crust that are almost flat or level and usually descend steeply to the surrounding lowlands. Plateaux are of great economic value. The south African Plateaux, for instance, yields gold, diamond,

copper, manganese, and chromium, while the plateau in western Australia is rich in gold and iron.

4. Mention the different types of Plateaux.

Plateaus may be classified into the following categories on the basis of their formation, appearance, and location.

- > Tectonic Plateau.
- ➤ Volcanic Plateau.
- Dissected Plateau.
- > Intermontane Plateau.
- > Piedmont Plateau.

5. What is a basin? Give an example.

A basin is a depressed section of the earth's crust surrounded by higher land. The Tarim and Tsaidam Basins of Asia.

6. Mention the different types of plains.

Plains are flat lowlands that are mostly built by the alluvium deposited by rivers. There are three types of plains:

- Structural Plains.
- Erosional Plains.
- Depositional Plains.

7. What is the importance of plains?

The importance of the plains is discussed below:

- Plains are important because they are good source of fresh fruits and vegetables.
- Plains are being ploughed by a farmer.
- Owing to the flat nature of the land. It is easy to construct roads and railways in plains.

• Plains have good and rich source of river which is very fertile for crops.

8. What is a peninsula? Take the help of your atlas and name four major peninsulas of the world.

A peninsula is a piece of land that is surrounded by water on three sides and joined to a larger land mass. The Peninsular plateau of India and the Malay Peninsula are to examples of peninsulas attached to the continent of Asia.

9. Which two land masses does the Isthmus of Panama connect?

An isthmus is an elongated narrow piece of land, with water on each side, that joins two large land masses. The Isthmus of Panama joins North America and South America with the Pacific Ocean on one Side and the Atlantic Ocean on the other.

C. ANSWER THE FOLLOWING QUESTIONS IN ONE OR TWO PARAGRAPHS.

1. Name the major landforms on earth.

The major landforms on earth are:

- **Mountains** Most of the rivers originate from mountains. They are rich in minerals and metals deposits and support variety of flora and fauna.
- **Plateau** They are storehouses of minerals such as gold, silver, iron, copper, manganese, etc.
- Valley They are low-lying lands between hills formed by river flowing down the mountains or due to movement of earth plates.
- **Plains** They are the most fertile landforms which support easy habitation.
- 2. List the continents according to size. Describe the two largest continents in detail.

- Continents are very large land masses that are surrounded by vast water bodies called oceans on all sides. They are the primary divisions of land. There are seven continents in the world.
- Asia is the largest continent. It occupies about one-third of the land area of our planet. It is joined to the land mass of Europe and, thus, we use the term Eurasia for this combined land mass.
- Africa is the second largest continent after Asia. It is surrounded by water bodies on all sides. In Africa lies the largest desert of the world, the Sahara Desert.

3. Write short notes on

i.Europe

ii.Australia

Europe is smaller in size in comparison to the other continents but has some of the most developed nations in the world. To its north is the Arctic Ocean. The Atlantic Ocean separates it from North America. It has the most indented coastline among the continents. It has numerous ports and some of the finest harbours in the world.

Australia is sometimes called 'the Land Down Under' as it lies to the south of the main land masses. It is also the smallest continent in size. It has the Indian Ocean in the west, the South Pacific Ocean in the east, the Southern Ocean in the south, and the Arafura Sea in the north. Therefore, it is also called the 'island continent'.

4. How is Mount Fuji of Japan different from the Vosges of Europe?

Mount Fuji is a volcanic mountain formed when molten lava, ash, dust, etc. come out through cracks in earth's crust and is accumulated in shape of high cone. Whereas Vosges in Europe are formed by rupturing or fracturing of rock strata due to strain and is an example of block mountain.

5. Briefly describe the importance of mountains.

- Mountains are a storehouse of water. Many rivers originate in the glaciers in the mountains.
- Reservoirs are made and the water from the mountains is used for irrigation and generation of hydroelectricity.

- The river valleys and terraces are most suitable for farming and cultivation of crops as the land is very fertile.
- Mountains support a rich variety of flora and fauna.
- Mountains are also rich in mineral and metal deposits which are essential for industries.

6. How is a volcanic mountain formed?

Volcanic mountains are formed when molten lava, ash, cinder and dust from deep inside the earth come out on the surface through cracks in the earth's crust and accumulate in the shape of high cones. The opening through which lava and other materials come to the surface is called a vent. The funnel-shaped depression at the top of a vent is called a crater. **Examples** – Mountain Fujiyama in Japan, Mountain Mayon in the Philippines.

7. What is a V-shaped valley?

The valley which is formed by an exogenous process i.e., from the outside like a river flowing down the mountain eroding the soil and minerals form a V-shaped valley, e.g., Rhine valley in Europe and Damodar valley in India.

8. Briefly explain

- 2. Peninsula
- 3. Island
- 4. Isthumus

Peninsula: is a piece of land that is surrounded by water on three sides and joined to a larger land mass. The peninsular plateau of India and the Malay Peninsula are two examples of peninsulas attached to the continent of Asia.

Island: An island is a piece of land which is surrounded by water. India has two groups of islands – the Lakshadweep Islands in the Arabian Sea and the Andaman and Nicobar Islands in the Bay of Bengal.

Isthmus: An isthmus is an elongated narrow piece of land, with water on each side, that joins two large land masses. For example, the Isthmus of Panama joins North America

and South America with the Pacific Ocean on one side and the Atlantic Ocean on the other.

OBJECTIVE TYPE QUESTIONS:

I. FILL IN THE BLANKS:

- **1.** The **Himalayas**, the **Alps** and the **Andes** are mountain ranges of Asia, Europe and South America, respectively.
- **2.** The jog falls is in **Western Ghats**.
- **3.** The <u>deccan</u> plateau in India is one of the oldest plateaus.
- **4.** As we go higher, the climate becomes **hotter**.
- **5.** The **Appalachians** in North America have rounded features and low elevation.

II. SAY TRUE OR FLASE:

- 1. Mauna kea (Hawaii) in the Pacific Ocean is an undersea mountain. TRUE
- **2.** Mt. Kilimanjaro is in Africa. **TRUE**
- **3.** The Hundru falls in the Chotanagpur plateau is not on the river Subarnarekha. **FALSE**
- **4.** Many of the mining areas in the world are located in the plains areas. **TRUE.**
- **5.** The Atlantic Ocean is considered as Busiest Ocean from the point of view of commerce. **TRUE.**

III. DEFINE THE FOLLOWING:

1. What happened to Andaman and Nicobar Islands during Tsunami?

The entire stretch of the Nicobar Islands was drowned into the sea to varying levels from 1.1 meters to 3 meters.

2. How is elevation of land measured?

Elevation is distance above sea level. Elevations are usually measured in meters or feet.

3. Write the major divisions of the Earth's surface.

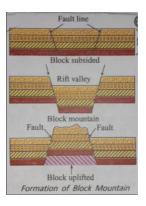
The structure of the earth is divided into four major components: the crust, the mantle, the outer core, and the inner core.

WORKSHEET

1. DRAW NEAT, LABELLED COLORED SKETCHES TO SHOW THE CHARACTERISTICS OF EACH OF THE FOLLOWING GEOGRAPHICAL FEATURES.WRITE A BRIEFDESCRIPTION ALONGSIDE, EXPLAINING EACH OF THEM.

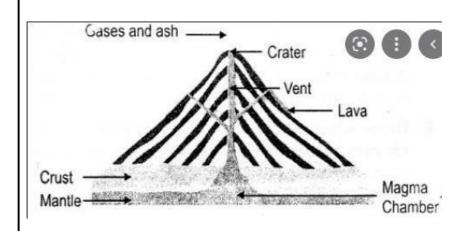
1. Block mountain

Block Mountains are formed as the result of damage caused by the tensile and compressive forces caused by endogenous forces from the Earth's interior, also known as fault-block mountains.



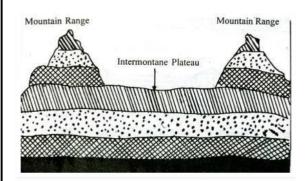
2. Volcanic mountain

Volcanic mountains are a special class of mountains. A volcano is a vent or opening through which magma, ash, gases, and water vapour are ejected out.



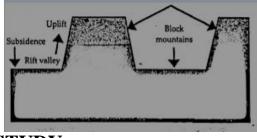
3. Plateau

A plateau is a flat, elevated landform that rises sharply above the surrounding area on at least one side.



4. Rift Valley

Rift Valley—The rift valley is the type of valley that is formed when the land between the two faults sink.



WORKSHEET

A. PICTURE STUDY



Look at the photographs of a plain and a plateau given here and answer the questions.

1. How does a plain look different from a plateau?

The main difference between plain and plateau lies in their elevation. A plateau is a flat land that is raised significantly above the ground whereas plain is a flat, low-lying area.

2. Why river plains are thickly populated?

The river plains are very suitable for human habitation. People get flat land for building houses and for cultivation. The soil of river plains is fertile. Hence people live here and cultivate land for their living.

3. How is life in the plains different from life in the mountains?

In the plains, it is easier for people to make roads and houses and to dig wells, unlike in the mountains where it is difficult and expensive to make them, and water must be brought from distant streams.

CHAPTER 4 MAJOR WATER BODIES

A. WITH THE HELP OF YOUR ATLAS IDENTIFY AND MARK THE FOLLOWING IN AN OUTLINE MAP OF THE WORLD.

- **1.** The largest ocean is the world. Pacific <u>Ocean</u>
- 2. The northern most ocean. Arctic Ocean
- 3. An inland sea in Eurasia Caspian Sea

4. Two rivers in EuropeRhine and Danube

B. ANSWER THE FOLLOWING QUESTIONS IN BRIEF.

1. Name the major water bodies on earth.

Oceans are the major water bodies in the world. There are five oceans in the world – the pacific, the Atlantic, the Arctic, the Indian and the Southern Ocean.

2. What is the Ring of Fire?

The Pacific Ocean is the largest ocean and covers over one-third of the globe. It is almost circular in shape and is bordered on its edges by new fold mountains that have the maximum concentration of active volcanoes. Therefore, these mountain ranges have been termed the 'Ring of Fire'.

3. What is the difference between a gulf and a bay?

A gulf is an inlet of the sea of large areal proportions while a bay is an open, curving indentation made by the sea or a lake into a coastline. Gulfs are more indented than bays and more enclosed.

4. What do you understand by strait? Give an example.

A Strait is a narrow stretch of water that joins two large water bodies. The Strait of Gibraltar, for example, connects the Mediterranean Sea to the North Atlantic Ocean.

5. Mention the five Great Lakes of the USA.

The Superior, Huron, Michigan, Ontario, and Erie are a group of five huge freshwater lakes located between the United States and Canada.

6. Name the different parts of a river.

The two main parts of a river are its source (from where the river originates) and the mouth (where the river enters the sea)

7. What is surface run-off?

Water from rain, melting snow, or other sources that flows over land and its part of the water cycle.

C. ANSWER THE FOLLOWING QUESTIONS IN ONE OR TWO PARAGRAPHS.

1. Why are oceans important?

Oceans are very important for us for many reasons:

- ➤ Oceans are great storehouses of oil and mineral resources.
- ➤ They support a large variety of aquatic life.
- ➤ They facilitate international trade by providing trade routes.
- > Oceans are also a source of food supply for many people around the world.

2. Describe the course of a river.

The river passes through three courses from its source to mouth – upper, middle, and lower. The upper course generally lies in mountains where land is steep, and river flows very fast. At middle course the river speed decreases as plains have gentle slope. The flow of the river is nearly halted at its mouth (where it meets the sea or ocean).

3. Mention any five important rivers of the world.

- The Mackenzie River
- The Saint Lawrence River
- The Rhine
- The Danube
- The Indus

4. Briefly describe the importance of rivers.

Rivers are an extremely important water resource:

- The river valleys and plains provide fertile soils and crops grow in plenty in and around the region.
- River water is used for human and animal consumption. Rivers provide abundant water supply to support large settlements.
- Rivers provide means of transport to carry humans and goods from one place to another and thus facilitate trade.
- River waters is an important source of energy. It is used to power hydroelectric
 plants and helps in generation of electricity. It also thus helps the industries to
 grow.
- Rivers also provide the means for recreational activities.

5. What are the major causes of water pollution?

The major causes of water pollution are

Liquid Waste from thermal power plants: It increases the dissolved oxygen content of river water.

Surface run-off: Surface run-off from farms carrier Organic and inorganic fertilizers into water bodies.

Untreated liquid waste: Untreated liquid waste from kitchens and toilets is often discharged into rivers.

6. What is an oil spill? Why is it harmful for the environment?

When the crude oil gets leaked into the sea while being transported from one country to another because of an accident and hurricanes it is called oil – spill. The aquatic life

gets poisoned as oxygen can't reach them and leads to their death affecting the life cycle.

OBJECTIVE TYPE QUESTIONS:

I. DEFINE THE FOLLOWING.

- i. Ridge. A High pointed area near the top of a mountain.
- ii. **Surface run** off. Water from rain, melting snow, or other sources that flows over land and is a part of the water cycle.

II.MATCH THE FOLLOWING:

1	Amazon	Gangotri Glacier	3
2	Nile	Arabian sea	5
3	Ganga	Selvas	2
4	Mississippi	Longest river in the world	1
5	Indus	Longest river of Europe	6
6	Volga	South America	4

III. WHO AM I:

- 1. The deepest point of the Earth and its location. The Mariana Trench, in the Pacific Ocean.
- 2. A group of Islands in the Pacific Ocean. Melanesia, Micronesia, and Polynesia.
- 3. The ocean that is busiest of all oceans **The Atlantic Ocean**.
- 4. The largest saltwater lake of the world The Great Salt Lake.
- 5. A river in England that forms an Estuary. River Humber.
- 6. The famous waterfall between Lake Erie and Lake ontarion in North America.

Niagara Falls

- 7. The largest freshwater lake of Europe. Lake Baikal
- 8. The deepest freshwater lake of the world. Lake Baikal

EXTRA QUESTION:

1. Write a note on largest ocean of the globe?

The Pacific Ocean is the largest and deepest of the world ocean basins. Covering approximately 63 million square miles and containing more than half of the free water on Earth, the Pacific is by far the largest of the world's ocean basins. All the world's continents could fit into the Pacific basin.

2. Which ocean is called the busiest ocean in the world? Why?

The Atlantic Ocean is the busiest in terms of passenger and cargo traffic. It is important for business and relationship of country. It is situated between two of the most developed regions of the world North America and Europe make it very important for trade and commerce.

3. Mention the name and the length of the first and the second longest river in the world.

- The first longest river in the world Nile 6650 kms
- The second longest river in the world Amazon 6400 kms.

4. Write any two benefits of rivers.

- Provide water for irrigation.
- Provide water for drinking.

5. What is water pollution?

A water body is said to be polluted when toxic substances damage it, making it undrinkable and dangerous for organisms to live in it. Harmful substances like sewage, silt, toxic - chemicals and domestic waste are called water pollutants.

WORKSHEET

A. PICTURE STUDY.

Look at the picture of an ocean given here and answer the questions.

1. Describe the characteristics of the largest ocean in the world.

Pacific Ocean is the largest ocean and covers one third of third of the globe. it is circular in shape and is bordered by volcanic mountains and is termed as right of fire. the deepest part of earth i.e Mariana Trench lies in this ocean near the Philippines.

2. What are the differences between an ocean and a sea?

Sea provides substantial supplies of food for humans, mainly fish. Uses of the sea include trade, travel, mineral extraction, power generation, warfare, and various leisure activities.

An ocean is a body of water that composes much of a planet's hydrosphere. The ocean contains most of the Earth's water. Oceans influence weather and climate patterns.

CHAPTER 5

TYPES OF AGRICULTURE

A. ANSWER THE FOLLOWING QUESTIONS IN BRIEF.

1. What do you understand by agriculture?

The word 'agriculture' is derived from two Latin words—'ager' meaning 'Field' and 'cultura' meaning 'to cultivate'. Hence, agriculture refers to the cultivation of a field.

2. Name any three types of agriculture practiced around the world.

There are many different types of agriculture practiced around the world,

- Subsistence Farming
- Intensive Farming
- Extensive Farming

3. Define subsistence agriculture.

Subsistence farming is practiced by farmers who own small pieces of land. Such farmers grow just enough crops to meet their needs and those of their families. They generally grow rice or vegetables and use organic or natural fertilizers such as cow dung, animal droppings and dead and dried plants. They depend on the monsoon rains for water for the crops.

4. Why is intensive farming expensive?

This type of agriculture is expensive because the farmer has to buy all these things, including the high-yielding seeds. Moreover, he has to employ plenty of labors to help him.

5. Name the crops grown by extensive farming.

Crops like Wheat, maize and barley are grown using the practices of extensive farming. To make this type of farming profitable, large quantities of land are required. The average required size of the farm is around 1000 to 2000 acres.

6. Why is shifting cultivation not productive in the long run?

This form of agriculture is wasteful and harmful to forests and wildlife. After a few years the fertility of the land is reduced. The infertility is caused by excessive leaching, a process in which the salts and minerals of the soil are drained away by water.

7. In which parts of India is shifting cultivation practiced?

Shifting cultivation is practiced in areas such as the Amazon basin, the Zaire basin, Indonesia, Malaysia, and other forest areas within the tropics. In India, this practice is prevalent in states such as Arunachal Pradesh, Nagaland, Manipur, and Mizoram in the northeast and in Chhattisgarh and Jharkhand.

8. Mention any two features of commercial farming.

In commercial farming, crops are grown on a large scale, mainly for selling the produce in the market both at home and abroad. The main aim of this type of farming is to earn profit.

B. ANSWER THE FOLLOWING QUESTIONS IN ONE OR TWO PARAGRAPHS.

1. Briefly explain subsistence agriculture.

Subsistence farming is practiced by farmers who own small pieces of land. Such farmers grow just enough crops to meet their needs and those of their families. They generally grow rice or vegetables and use organic or natural fertilizers such as cow dung, animal droppings and dead and dried plants. They depend on the monsoon rains for water for the crops.

2. Distinguish between intensive and extensive farming.

Intensive farming is practiced on small plots of land. The farmer tries to get the maximum yield from his small land by using cross-bred or hybrid seeds, plenty of fertilizers and pesticides. This type of agriculture is expensive because the farmer must buy all these things, including the high yielding seeds. Moreover, he must employ plenty of labor to help him.

Extensive farming is practiced in areas of low population and where plenty of land is available for cultivation. Less human labor is available because of a small

population. Therefore, most of the work is done by using large machines such as the combine harvester. Crops like wheat, maize and barley are grown using the practices of extensive farming. To make this type of farming profitable, large quantities of land are required. The average required size of the farm is around 1000-2000 acres.

3. What do you understand by shifting agriculture?

Monsoon rains and the ash produced by the burning vegetables increased the fertility of the soil which helps crops grow fast. The farmers clear a small part of land by cutting down trees and bushes and burning the stumps and branches before they start planting their crops. They do not use any tools except large knives called machetes with which they slash the natural vegetation of the area where they intend to stay. Then, they scatter the seeds on the fertile ground and leave them to grow. They depend on the monsoon rains for water. The farmers remain in the area for some years. Once the soil becomes infertile, they move on to clear the nextpatch of land.

4. What crops are grown by commercial farming? What are the methods that are employed?

Modern methods of cultivation such as using high yielding variety of seeds, chemical fertilizers, and pesticides are used along with modern irrigation techniques and cold storage to store the produce after harvest. Products such as apple, grapes, mushrooms, cauliflowers, broccoli etc. are grown using the practices of commercial farming.

5. Write a short note on plantation farming.

Plantation farming is a type of commercial farming. Here, a single crop, instead of multiple crops, is planted over a large area known as a plantation. Under plantation farming only cash crops are grown and quality control is important because the products cater to both national and international markets. The work on the farm is

highly organized, as in a factory. The crops are especially prepared in nurseries and then transplanted into farms which are heavily fertilized. In this way the quality of the crop is quite high. A large amount of money is required as capital and modern scientific techniques are incorporated. The farms are very large. All the work – growing, harvesting, processing and even packing is done on these farms, also called estates. Highly skilled labors are necessary and much of the work is done by hand.

6. Write a short note on mixed farming.

Mixed farming is a form of farming in which crops are grown and animals are reared on the same farmland. Farmers grow a variety of crops and also keep a number of dairy animals to get milk. Sometimes poultry is also kept. Farmers practices mixed farming mainly with aview to increasing their earnings, from two different sources. One of the major benefits of mixed farming is that if one of farm enterprise fails, the farmer could still depend on the other.

EXTRA QUESTIONS:

1. What is agriculture considered as the main source of income in India?

Agriculture, with its allied sectors, is the largest source of livelihoods in India. 70 percent of its rural households still depend primarily on agriculture for their livelihood, with 82 percent of farmers being small and marginal.

2. Poverty is the obstacle to farmers with small land building?

Farmers need to deal with many problems, including how to: Cope with climate change, soil erosion and biodiversity loss. Satisfy consumers' changing tastes and expectations. Meet rising demand for more food of higher quality.

3. Why is substance farming dependent on monsoon rain?

Monsoon is one of the most important seasons for farmers for a country so dependent on its agro-industry. Most of the Indian agricultural land is irrigated by the southwest monsoon. Crops such as wheat, rice, pulses, which are a staple in Indian diets, need heavy rainfalls to grow.

OBJECTIVE TYPE QUESTIONS:								
I. CHOOSE THE BEST ANSWER: -								
1. Minerals are the substances that can be found naturally in Earth								
(a) Earth(b) Mountain			(c) River					
2. Minerals are of 2 types.								
(a)4	(b) 2	(c) 3						
3. Metallic minerals are <u>Hard</u>								
(a) Soft	(b) hard	((c) stretchable					
4. Metallic Minerals are mostly found in igneous rocks.								
	11	r .						
(a) Metallic minerals (b) Non-metallic minerals								
5. Australia is the biggest producer of iron ore in the world.								
(a) India	(b) Australi	a ((c) USA					
6. Aluminum is taken out of Bauxite ore.								
(a) Bauxite	(b) manganese	(c) iron	1					
7. India is the 4 th leading producer ofiron ore in the world.								
(a) 1	(b) 4	(c) 3						
8. Non-Metal made.	lic Minerals are subs	stances f	From which new substances cannot be					
(a) Metallic	(b) Non- me	etallic						
9. Non-metallic minerals are <u>breakable</u>								

(a)	soft	(b) breakable	(c) None of these				
	10. There are <u>3</u> ways in which coal is mined						
(a)	1	(b) 2	(c) 3				
	11. In strip mining Coal is collected from just under the surface.						
(a)	Gold	(b) Silver	(c) coal				
	12. An oil field is an area where there are many Sea						
(a)	wells	(b) seas	(c) none of these				
	13.Petroleum is a fossil fuel as wellCoal						
(a)	Natural gas (b) coal (c) go	old				
14. Surface mining is done by clearing the surface vegetation dirt.							
(a)	Surface (b) U	nderground (c) no	one of these				
15. <u>Underground</u> mining is also called sub- surface mining.							
(a)	Underground	(b) Highway	(c) none of them				

II. FILL IN THE BLANKS:

- 1. **Hydroelectric Power** refers to electricity generated by hydro power.
- 2. Iron is a **Metallic** mineral.
- 3. The process of taking out minerals by making mines is called **Mining**.
- 4. **Non-Metallic** Minerals have no shine or luster of their own.

III. SAY TRUE OR FALSE

- **1.** In deep mining long tunnels are dug in-order to reach the coal, which lie deep under the surface. **True**
- 2. Rocks that contain minerals are also called ores. **True**
- 3. Non-metallic minerals are found in sedimentary rocks. **True**

4. Gold is found in Kolar mines of Karnataka. **True**

WORKSHEET

PICTURE STUDY.



The photograph here shows a farmer tending to his field.

1. What type of farming is he practicing?

The farmer is practising subsistence farming i.e. growing crops to meet his own daily needs.

2. What are the difficulties that he might face?

He might not get good yield because of poor seed quality, bad monsoon and lack of fertilizers and pesticides.