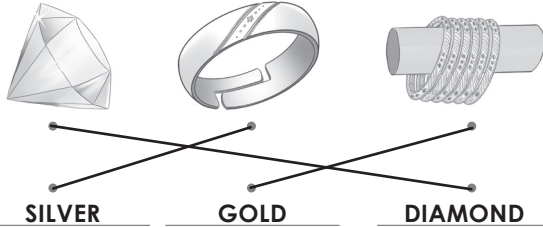


Answers

Theme 1: What Makes Our Land Chapter 1: Rocks and Minerals

Main Coursebook

I am ready



Icebreaker:

Gold

In-text Question

1. Sedimentary rocks
2. Metamorphic rocks

In-text Question

1. Gold
2. Coal

I am a learner

- A. 1. b 2. a 3. c 4. b 5. a
- B. 1. True 2. False 3. False
4. True 5. False
- C. 1. Minerals are natural non-living substances present in different quantities, qualities and arrangements within rocks.
2. Diamond
 3. The minerals from which metals can be profitably obtained are called ores.
- D. 1. The differences between igneous, sedimentary and metamorphic rocks are as follows:

Igneous rocks: These rocks are formed by the cooling and hardening of hot liquid rock material, called magma.

Example: granite

Sedimentary rocks: These rocks are formed from pebbles, sand, mud, rocks or clay, deposited in the ocean and brought to the shore by flowing water or floating ice.

Example: shale

Metamorphic rocks: These rocks are formed by transformation of already existing rocks through a process called metamorphism.

Example: marble

2. The differences between metallic and non-metallic minerals are as follows:

Metallic minerals	Non-metallic minerals
These are used to obtain metals. Examples include gold, platinum, iron and zinc.	These include fossil fuels or other valuable resources that are found underground. Examples include coal and petroleum.

I am a thinker

Accept all relevant responses.

I am an all-rounder

A. English:

1. work
2. silver fork

B. Maths: DCCXVII

C. Social Studies: Plateaus

Students' Worksheets

Worksheet 1

- A. 1. minerals 2. non-living 3. landforms
4. Igneous 5. magma
- B. 1. →b 2. →c 3. →d
4. →a 5. →e
- C. 1. False 2. False 3. True
4. True 5. True

Worksheet 2

- A. 1. Limestone 2. Sedimentary
3. Conglomerate 4. shells
5. pile up
- B. 1. GRANITE
2. IGNEOUS
3. OBSIDIAN
4. SEDIMENTARY
5. METAMORPHIC
- C. 1. True 2. True 3. False
4. True 5. True

Worksheet 3

- A. 1. Rocks are made up of minerals. These may be made up of one or more minerals.
2. Magma is a hot liquid rock material that hardens and cools to form igneous rocks.
 3. Minerals are natural non-living substances present in different

quantities, qualities and arrangements within rocks.

4. Igneous rocks, sedimentary rocks and metamorphic rocks.
5. Metamorphic rocks form by transformation of already existing rocks through a process called metamorphism.

- B. 1. →c 2. →a 3. →e
4. →b 5. →d
- C. 1. False 2. True 3. True
4. True 5. True

Worksheet 4

- A. 1. mines 2. black gold
3. metals 4. precious
5. Fossil fuels
- B. 1. COAL 2. METALLIC
3. PETROLEUM 4. HAEMATITE
5. NON-METALLIC
- C. 1. No 2. Yes
3. No 4. Yes
5. No

Teacher's Worksheets

Worksheet 1

1. Igneous rocks are formed by the cooling and hardening of hot liquid rock material, called magma. This magma is pushed upwards by the pressure of other rocks around it.
2. We should use coal, oil and petrol wisely. We can substitute them with inexhaustible natural resources, such as water, air and the Sun.
3. Slate is commonly used for flooring, roofing and wall cladding.
4. Sedimentary rocks are formed from pebbles, sand, mud, rocks or clay, deposited in the ocean and brought to the shore by flowing water or floating ice.
5. Metamorphic rocks form by transformation of already existing rocks through a process called metamorphism.

Worksheet 2

- A. 1. →b 2. →d 3. →e
4. →c 5. →a
- B. 1. It is used for making bricks and tiles.
2. It is used for flooring, ornamental stones or gravestones.

3. It is used for making cutting tools.
4. It is used for filling materials in roads and construction.
5. It is used for teeth polishing by dentists.

Theme 1: What Makes Our Land

Chapter 2: Force and Energy

Main Coursebook

I am ready



PULL



PUSH



PUSH

Icebreaker: STATIONARY

In-text Question

1. Muscular force
2. Buoyant force

In-text Question

1. True
2. True

I am a learner

- A. 1. b 2. a 3. b 4. c 5. a
- B. 1. True 2. False 3. False
4. True 5. True
- C. 1. It is a push or pull when applied on any object tends to change the state, speed, direction and shape of the object.
2. Pull
3. It is the energy that is stored in batteries.
- D. 1. **Gravitational force:** Every object in this universe attracts other objects with a force known as gravitational force. When two bodies with some mass come closer to each other, they pull and attract each other. Gravitational force is always an attractive force. We are able to stand, walk, sit and be on the Earth's surface due to the gravitational force exerted by the Earth on our body.

Buoyant force: When any object floating on water is pushed down, the water exerts an upward push on the object. This upward push is called upthrust. Human beings experience this force while entering a swimming pool.

2. **Mechanical energy:** It is the energy attained by the bodies on which work is being done.

Solar energy: It is the form of energy obtained from the Sun. It is a renewable source of energy and does not cause any pollution to the environment.

Geothermal energy: It is the energy that is derived from within the Earth.

Wind energy: It is the energy produced by moving air or wind. The kinetic energy of wind is converted into mechanical energy using wind turbines. The mechanical energy can further be transformed into electricity with the help of generators.

Chemical energy: It is produced when different substances react with each other to form new substances.

Electrochemical energy: It is the energy that is stored in batteries.

Heat is an energy that is transferred from one body to another due to difference in temperature of the two bodies.

Light is another form of energy that travels in straight lines pointed away from the source towards the viewer.

Sound is also a form of energy produced due to the vibrations of different bodies.

Electrical energy is generated due to the movement of electrical charges.

I am a doer

Accept all relevant responses.

I am an all-rounder

A. English:

1. homework 2. artwork

B. Maths: ₹1,36,103

C. Social Studies: Due to less frictional force on plains.

Students' Worksheets

Worksheet 1

- A. 1. force 2. Muscular
3. contact 4. gravitational
5. attractive
- B. 1. False 2. False 3. True
4. False 5. True
- C. 1. →b 2. →e 3. →c 4. →d 5. →a

Worksheet 2

- A. 1. Frictional 2. mechanical
3. buoyant 4. Energy
5. Work

- B. 1. MUSCULAR 2. GRAVITATIONAL
3. FRICTIONAL 4. MECHANICAL
5. UPTHURST

- C. 1. →e 2. →a 3. →b 4. →c 5. →d

Worksheet 3

- A. 1. It is the force that comes into play when we use muscles of our body to push or pull something.
2. It is the force of attraction between every two objects in the universe.
3. It is the force that opposes the motion of an object moving on a surface.
4. It is a contact force that acts between two bodies.
5. It is an upward push exerted by water on any object when it is pushed down in water.
- B. 1. gravitational force 2. muscular force
3. buoyant force 4. frictional force
5. mechanical force
- C. 1. Yes 2. No 3. Yes 4. No 5. Yes

Worksheet 4

- A. two; Kinetic; stationary position; solar; renewable
- B. 1. SOLAR 2. GEOTHERMAL
3. CHEMICAL 4. ELECTROCHEMICAL
5. ELECTRICAL
- C. 1. kinetic energy 2. potential energy
3. wind energy 4. geothermal energy
5. chemical energy

Teacher's Worksheets

Worksheet 1

A.



Pushing



Pulling



Pushing



Pulling



Pushing



Pulling



- B. 1. movement 2. kinetic
3. stationary 4. Chemical

Worksheet 2

- A. 1. T 2. T 3. F 4. T 5. F

- B.
1. When any object floating on water is pushed down, the water exerts an upward push on the object. This upward push is called upthrust.
 2. Wind energy is the energy produced by moving air or wind. The kinetic energy of wind is converted into mechanical energy using wind turbines. The mechanical energy can further be transformed into electricity with the help of generators.
 3. Every object in this universe attracts other objects with a force known as gravitational force. When two bodies with some mass come closer to each other, they pull and attract each other. Gravitational force is always an attractive force.

Theme 2: What Helps Us Survive

Chapter 3: Houses Around Us

Main Coursebook

I am ready



P



K



P

Icebreaker: HOUSE

In-text Question

1. Yes
2. No

In-text Question

1. False
2. True

I am a learner

- A. 1. b 2. b 3. c 4. c 5. b
- B. 1. True 2. False 3. False
4. True 5. False
- C. 1. Houses that have flat roofs and thick walls are found here.
2. To keep the houses safe from floods and heavy rainfall.
3. Concrete, glass and iron.
- D. 1. Houses in areas with hot climates are built with bricks and stones. Houses in hilly areas are made up of bamboo and

wood. Places that are more likely to experience earthquakes have wooden houses. Huts are made up of muds, bamboo and palm leaves.

2. Before constructing a house, we should decide the money or the budget. We should consider space and needs of people. We should hire an architect to plan the house accordingly.

After constructing a house, regular cleaning and maintenance, periodic painting of the house and proper cleaning of the area surrounding the house should be done.

I am a thinker

Accept all relevant responses.

I am an all-rounder

A. English

1. love, happiness; abstract nouns
2. a troop of monkeys; collective noun

B. Maths: 1, 2

C. Social Studies: Wooden

Students' Worksheets

Worksheet 1

- A. 1. hot 2. thick 3. damp
4. stilts 5. ground
- B. 1. False 2. True 3. False
4. True 5. True
- C. 1. →b 2. →a 3. →d 4. →c 5. →e

Worksheet 2

- A. 1. stones 2. hilly
3. earthquakes 4. Kuccha
5. Huts
- B. 1. FLAT ROOFS 2. DAMP CLIMATE
3. SLOPING ROOF 4. RAINFALL
5. FIREPLACE
- C. 1. C 2. I 3. C 4. C 5. I

Worksheet 3

- A. 1. design 2. temporary
3. big 4. budget
5. architect
- B. 1. BRICKS 2. STONES 3. BAMBOO
4. WOOD 5. PALM LEAVES
- C. 1. True 2. False 3. False
4. True 5. True

Worksheet 4

- A. 1. Flat 2. Thick 3. Sloping

4. Fireplace 5. Brick
- B. needs, plan, drainage, sunlight, well-plastered
- C. 1. BUDGET 2. DRAINAGE
3. VENTILATION 4. ARCHITECT
5. MAINTENANCE

Teacher's Worksheets

Worksheet 1

- A. 1. FIREPLACE 2. SLOPING
3. EARTHQUAKE 4. TEMPORARY
5. ARCHITECT
- B. 1. Climate, building material and budget.
2. Houses in hilly areas are made up of bamboo and wood as these materials are easily available there.
3. Regular cleaning, periodic painting and maintenance.

Worksheet 2

- A. 1. hot 2. earthquake
3. palm 4. well-plastered
5. periodic
- B. 1. F 2. F 3. F 4. T 5. F
6. F 7. T 8. F

Theme 2: What Helps Us Survive

Chapter 4: Communicable and Non-communicable Diseases

Main Coursebook

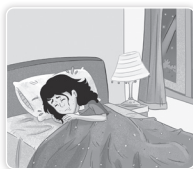
I am ready



S



H



S

Icebreaker: Fever

In-text Question

1. True 2. True

In-text Question

1. Yes 2. No

I am a learner

- A. 1. b 2. a 3. a 4. a 5. a

- B. 1. False 2. True 3. False
4. False 5. True

- C. 1. It is a condition when our body is not able to function properly.
2. Communicable disease.
3. Night blindness and scurvy.
- D. 1.

Communicable diseases: These diseases are transmitted from one person to another.

These diseases are not passed from one person to another.

These diseases are also known as infectious or transmissible diseases.

Examples include cold, polio and measles.

Non-communicable diseases: These diseases are also known as chronic diseases.

Examples include cancer, goitre and rickets.

2. Communicable diseases are transmitted through the following ways:
- Through direct contact:** Diseases that are caused by hand-to-hand contact with the infected person or by using the items contaminated by the infected person. Examples are scarlet fever and common cold.
 - Through infected food and water:** Insects, such as cockroaches and flies, carry germs and result in the contamination of food and water, as and when they come in contact with it. Examples are cholera and typhoid.
 - Through the air we breathe:** Diseases, such as whooping cough, scarlet fever and influenza, spread when germs get transmitted from the infected person to another person via air.
 - Through insects:** Yellow fever, malaria, dengue and plague spread through bugs, mosquitoes and sandflies.
 - Through carriers:** Some diseases are spread through completely healthy individuals. In such cases, the carriers do not show any symptoms or are affected in any way by the germs present inside their bodies. One such example is AIDS caused by the HIV.

I am a doer

Accept all relevant responses.

Worksheet 3

- A. 1. It is the outermost covering of the seed.
2. It is a tissue present inside the seeds that provides nourishment to the young seedling.
3. It is the nutrition-providing part for growing embryo that is found within the seed.
4. Air, water and sunlight.
5. These are various natural factors that disperse the seeds away from the parent plant.
- B. 1. PEA
2. HIPTAGE
3. COCONUT
4. TAMARIND
5. DANDELION
- C. 1. True 2. True 3. False
4. False 5. False

Worksheet 4

- A. 1. Seed coat
2. Embryo
3. Endosperm
4. Cotyledon
5. Sunlight
- B. 1. AGENT 2. WIND
3. WATER 4. ANIMAL
5. EXPLOSION
- C. 1. No 2. Yes 3. No
4. Yes 5. No

Teacher's Worksheets

Worksheet 1

- A. 1. T 2. T 3. F 4. T
5. T 6. T 7. F 8. F
- B. 1. b 2. d 3. a 4. c

Worksheet 2

- A. 1. Seed coat
2. Endosperm
3. Cotyledon
4. Germination
5. Leaves
- B. 1. The seeds require oxygen from air, water, sunlight or warmth to germinate.
2. Plants are stationary and unable to move on their own. As a result, all the seeds produced by the plant fall near

the parent plant and cannot find sufficient space and other conditions to grow.

3. Coconut has fibrous outer covering that can float on water. Lotus has spongy parts and hence, their seeds get dispersed through water.

Theme 3: Different Yet Alike

Chapter 6: Animals Around Us

Main Coursebook

I am ready



Aquatic

Terrestrial

Both

Terrestrial animals	Aquatic animals	Terrestrial as well as aquatic animals
Cow	Fish	Newts
Giraffe	Crab	Salamander

Icebreaker: Herbivore

In-text Question

1. False 2. True

In-text Question

1. Yes 2. No

I am a learner

- A. 1. c 2. c 3. c 4. a 5. c
- B. 1. False 2. True 3. False
4. True 5. False
- C. 1. These are the air holes present on the bodies on the insects and are used for breathing.
2. Forelimbs.
3. Emu, rhea and ostrich.
- D. 1. Microscopic organisms, such as *Paramecium* and *Amoeba* breathe through their body surface. Insects breathe through air holes, known as spiracles, present on their bodies. Animals, such as earthworms, breathe through their thin and moist skin. Some aquatic animals, such as fish, prawns and oysters, breathe through their gills. Amphibians, such as frogs, breathe through both their gills and lungs. A tadpole breathes through gills, whereas an adult frog breathes through lungs on land and through its moist skin in water.

2. The seasonal movement of animals from one place to another is called migration. Eels migrate from river to sea and lay eggs there. After hatching of the eggs, the parent eels die and the baby eels travel back to the rivers.

I am a doer:

Accept all relevant responses.

I am an all-rounder:

A. English:

- The forelimbs of birds are present in the form of wings that help them fly.
- Every third animal in India lives in water.

B. Maths: Fifty-two point five zero

C. Social Studies: Polar bears and musk ox.

Students' Worksheets

Worksheet 1

- A. 1. breathing 2. water
 3. *Paramecium* 4. Insects
 5. gills
- B. 1. False 2. False 3. True
 4. False 5. True
- C. 1. →e 2. →d 3. →c 4. →a 5. →b

Worksheet 2

- A. 1. four 2. forelimbs 3. hindlimbs
 4. paddle-like 5. webbed
- B. 1. Almost all mammals have four limbs.
 2. Birds have wings to fly.
 3. Emu is a flightless bird.
 4. Humans use their lower limbs to walk.
 5. Animals migrate due to food, weather, shelter and water.
- C. 1. I 2. I 3. C 4. I 5. C

Worksheet 3

- A. 1. wings 2. feathers 3. hindlimbs
 4. flightless 5. plates
- B. 1. AQUATIC 2. INSECTS 3. BIRDS
 4. REPTILES 5. HUMANS
- C. 1. True 2. True 3. False
 4. True 5. False

Worksheet 4

- A. 1. Fish 2. Turtle 3. Cockroach
 4. Tortoise 5. Snake
- B. 1. LIMBS 2. FINS 3. WINGS
 4. PLATES 5. SCALES
- C. 1. Yes 2. No 3. Yes 4. Yes 5. Yes

Teacher's Worksheets

Worksheet 1

- A. 1. Amoeba 2. gills 3. Insects
 4. Amphibians 5. Fishes
- B. 1. Microscopic organisms breathe through body surface.
 2. Turtles have paddle-like limbs that help push water in the backward direction.
 3. The forelimbs of birds are present in the form of wings that help them fly.
 4. Earthworms breathe through their thin and moist skin.
 5. Almost all mammals have four limbs.

Worksheet 2

- A. 1. Microscopic animals breathe through their body surface.
 2. Aquatic animals are the animals that live in water. Fishes and turtles are examples of aquatic animals.
 3. A tadpole breathes through gills and an adult frog breathes through lungs on land and through its moist skin in water.
 4. The hindlimbs of birds are used for walking, hopping, perching and running.
- B. 1. Fishes—Fishes have fins that enable them to swim.
 Birds—The forelimbs of birds are present in the form of wings that help them fly. The forelimbs of birds are used for walking, hopping, perching and running.
 2. An insect breathes through air holes, known as spiracles, present on their bodies. A fish breathes through their gills.
 3. The seasonal movement of animals from one place to another is termed as migration. Migratory fish, such as eels, migrate from river to sea and lay eggs there. After hatching of the eggs, the parent eels die and the baby eels travel back to the rivers. Some migratory insects, such as locusts, cause severe damage to crops, sometimes resulting in famine and starvation.

Revision Worksheet

- A. 1. c 2. c 3. c 4. b 5. b
- B. 1. metals
 2. Heat
 3. vegetative propagation
 4. nutrients
 5. anaemia

- C. 1. False 2. True 3. True
4. False 5. False

- D. 1. Igneous rocks 2. Ores
3. Rickets 4. Goitre
5. Architect

- E. 1. Electrical energy is generated due to the movement of electrical charges.
2. The size and design of the house also depends on the budget. Small and temporary houses require less money, whereas large and big houses need larger amounts of money to be invested.
3. Plants are stationary, and hence, unable to move on their own. As a result, all the seeds produced by the plant fall near the parent plant and cannot find sufficient space and other conditions to grow. Hence, they need external factors to spread the seeds far from the parent plant. This process of transfer of seeds away from the parent plant is known as the dispersal of seeds.



4. Reptiles, such as tortoise, crocodiles and lizards crawl, though they do have limbs. Snakes have plates that are attached to their ribs. While moving, these plates or scales act as feet and the ribs act as legs.
5. Vaccination is a method to protect our body by providing immunity against diseases. Different vaccines are available for different diseases, such as typhoid, tetanus, cholera, measles and hepatitis.
- F. 1. Non-communicable diseases that are not passed from one person.
2. Diseases that are transmitted from one person to another are called communicable diseases.
3. An embryo is a immature plant that further grows into a new plant.
4. Humans use their lower limbs to stand and walk.
5. Houses in cold areas have fireplaces to warm the house from inside.