Ch-1 : Changes in Family Structure

Page 7

Let's Do

1. Earthquake
2. Landslide
3. Tsunami

Page 8

Let's Do

1. First World War and Second World War caused the migration of Muslims from Balkan states to Turkey. Jews moved to Palestine. Some of them moved to America.
2. Partition of India in 1947 also caused migration of many Muslims to Pakistan and many Hindus to India.

Page 9-10

Exercises

A. 1. (i) 2. (ii) 3. (iii) 4. (iv)

B. 1. higher 2. acquires
3. demolished 4. transferrable

C. 1. If a person migrate from his or her own country to permanently live in another country, he or she is called emigrant in his or her own country but an immigrant in another country in which he or she has gone to live permanently.

2. Whenever a person shifts to another place, there are many changes in his and his family's life. Shifting to a new place brings more opportunities of getting good education and jobs. The economic condition of the family improves as a result. People get to meet new people and see different places. They also experience different cultures and traditions. However, when people migrate to different places, they face some problems too. They have to leave behind their homes, their friends and sometimes family also. They have to adjust to the climate, food and environment of the new place. Many times, people living happily in joint families are forced to live alone in far away places.

3. In olden times, people mostly lived in joint families under one roof. Men went out to work in fields or were busy in other occupations and women used to cook, clean and look after the children. Girls or women were not allowed to get education or go out to work. People shared their joys and sorrows with their family members.
Nowadays, most people live in nuclear families. Women get education and are employed in various fields, the same as men. Household works in a family are shared by men and women together. However, people have now lost contact with members of their extended family. They only meet them on special occasions. They often miss their support and companionship. Sometimes, children have to grow up without the love and care of their grandparents.

4. People move from one place to another due to various reasons. Let us learn about some of them.
   - Some people migrate to different places in search of better jobs. Due to poverty and scarcity of jobs in villages, many people move to bigger cities to find jobs. They often leave their families behind.
   - Some people move to different places to get better education. Our villages and small cities do not have

facilities for higher studies. So, people living in such places move to bigger cities or even different countries to pursue higher education.

- Sometimes people move to another place after their marriage.

5. There are different reasons for the displacement of people.
   - Many people are displaced when government acquires their land for building roads, bridges, flyovers and other structures. However, they get money or alternate land as a compensation from the government.
   - Sometimes, people are displaced due to the construction of a dam in their area. Whenever a dam is built, the whole area around it gets submerged in water. People living there are forced to move to another place. The government often provides them with alternative living arrangements.
   - People are also forced to move out of their homes due to wars. When partition of India and Pakistan took place in 1947, a number of people from both the countries were displaced.

Nut Cracker

Students have to answer it.

HOTS

These are the things that I shall like to share with my grandfather:

- What was his feeling when he was of my age?
- How can I pursue my education to make my future good?

Ch-2 : Family Traits and Senses

Page 12

Let's Do

(i) singer (ii) comedian
(iii) sportsperson (iv) generous
(v) cook

Page 13

Let's Do

(i) respecting elders
(ii) close to youngers
(iii) kind to poor
(iv) learn from elders and teachers

Page 16-17

Exercises

A. 1. (iii) 2. (iv) 3. (ii)

B. 1. cells 2. respect
3. Braille's script 4. ramp

C. 1. F 2. F 3. F 4. F
5. T

D. 1. Ramp - wheelchair
2. Brain - nerves
3. Hereditary disease - down syndrome
4. Beethoven - music
5. Cells - growth

E. 1. We have five sense organs - eyes, ears, nose, tongue and skin. However, one or more sense organs are not fully developed in some people. They may not be able to see, hear or speak properly. Some of them might have mental difficulties. Such people are called differently-abled people.

2. Our government has taken some steps to help differently - abled people :
   - Buses having low floors have been introduced to allow easy climbing and alighting of disabled persons.

- Special ramps have been built in some government buildings, railways and shopping centers to help people who use wheelchair.
- Our national news channels telecast news in sign language for people who cannot hear.
- Many educational institutions and vocational courses have been opened which have facilities for helping them.

3. Braille is a type of writing system used by visually impaired or blind. Each alphabet is represented by a different number and arrangement of raised dots. These alphabets can be recognised by touching them.

   Braille was invented by a Frenchman, Louis Braille, at the age of 15. He himself lost his sight in childhood due to an accident. In addition to alphabets, Braille is used to denote numbers and punctuation too.

4. Our likes and dislikes are greatly influenced by our family. For example, members of a vegetarian family generally like to eat vegetarian food. Families living in South India generally like to eat dosa, idli and sambar, while a family living in Bihar likes litti chokha.
5. Some diseases like diabetes, down syndrome and heart diseases also can be passed from one generation to the next. Such diseases are called hereditary diseases.

Nut Cracker

1. Vincent Van Gogh - Netherlands
2. Helen Keller - USA
3. Beethoven - Germany
4. Stephen Hawking - England
5. Franklin D. Roosevelt - USA

HOTS

We can talk with him using sign language.

Ch-3 : Playing Fun

Page 20

Let's Do

Students have to collect information and picture on a team game, etc. from internet.

Page 24-25

Exercise

A. 1. (iv) 2. (i) 3. (iv)

B. 1. outdoor 2. sports spirit
3. Asian 4. Mallakhamb
5. Boat race

C. 1. T 2. F 3. F 4. F
5. T

D. 1. (i) Some games are played by a player on his own or against a single opponent. Such games are called individual games. Chess, swimming, cycling, billiards and skating are some individual games.

In team games, a group of players, called a team, plays against another team of players. The number of players in the team depends on the type of game or sports. Cricket, football, hockey and basketball are some examples of team games.

(ii) Some games like ludo, carrom, chess and Chinese checkers are played inside our home. These are called indoor games.

Outdoor games are played outside our homes. They require a huge play area or ground. They are

usually played in stadiums. Cricket, football, hockey, volleyball and basketball are some outdoor games.

2. Mallakhamb, Pachisi and Kho-kho are traditional sports of India.

   In mallakhamb, a gymnast turns, twists, stretches and makes balance on the poll.

   In pachisi, two individuals play on a board with the help of shells.

   In kho-kho, two teams play against each other without any sports equipment. It involves touching and chasing a person.

3. Cricket World Cup : Special events of international cricket matches that take place after every four years.

   Olympics : An international event that includes different types of games and almost all countries of the world take part in it. It is held every four years.

4. The working together of members of a team to achieve a common goal is called team spirit.

   We should follow some steps to maintain team spirit. Some of them are as follows:

   - We should put in our best effort.
   - We should never fight with our team members and even our opponents.
   - We should never use unfair means to win.

   The benefits of team spirit are as following:

   - It boosts our confidence.
   - We develop bonding and friendship with other players.
   - The chances of winning are better if all team members support and cooperate with each other.

Nut Cracker

1. Harmanpreet Singh - Natinal hockey team
2. Rohit Sharma - National cricket team (men)
3. Harmanpreet Kaur - National cricket team (women)
4. Sunil Chhetri - Nationsl football team

HOTS

Students have to answer.

Ch-4 : Dignity of Labour

Page 31-32

Exercise

A. 1. (iv) 2. (iii) 3. (iii) 4. (iii)

B. 1. equal respect 2. sweeper
3. division of labour 4. menial, lowly
5. Dr. B. R. Ambedkar

C. 1. F 2. T 3. F 4. F
5. T

D. 1. We have learnt that people do different kinds of works. No work is big or small. Dignity of labour means that all occupations, whether involving education or manual labour, deserve equal respect and dignity. No occupation should be considered menial or lowly. Every job which is performed honestly and sincerely deserves respect and appreciation.

2. Sweeper, maid, garbage collector, gardener and washerman help us in our everyday lives.

3. Mahatma Gandhi, the Father of our Nation, strongly believed in dignity of labour. He said that no work is small or low and all works are a form of worship to God. He led a very simple life. He wore a dhoti which was handspun on

charkha. He cleaned his own toilets to show that no work is menial. He led national campaigns to end untouchability.

4. An occupation is the work that people take up to earn their livelihood.
5. People who did menial or low works of cleaning were considered untouchables. This practice is wrong because it decreases the importance of dignity of labour.

Nut Cracker

1. prohibition of child marriage
2. prohibition of sati
3. bring up orphans and sick
4. serving sick and lepers

HOTS

Students have to answer.

Ch-5 : Food and Its Preservation

Page 39-40

Exercise

A. 1. (ii) 2. (iii) 3. (iv) 4. (ii)

B. 1. potato, milk 2. carrot
3. preservation 4. perishable
5. bacteria and fungi

C. 1. Vitamin A 2. Vitamin B
3. Vitamin C 4. Vitamin C
5. Iron 6. Iodine

D. 1. The five nutrients that give nutrition to our body are carbohydrates, fats, proteins, vitamins and minerals.

2. Proteins help us to grow by making new cells in our body. Children need a lot of proteins in order to grow well. Some sources of proteins are pulses, soyabean, milk, fish and nuts.
3. We should eat food which contains all the essential nutrients required by our body. The diet which contains all the essential nutrients in proper quantity is called a balanced diet.
4. The diseases caused due to lack of a particular nutrient in our body are called deficiency diseases.

   Deficiency of Vitamin A causes night blindness.

   Some symptoms of night blindness are:

   - Dry skin and dry eyes
   - Difficulty in seeing in dark or dim light

   Deficiency of Vitamin B causes a disease called Beri-Beri. Its symptoms are :

   - Swollen joints
   - Headache
   - Extreme weakness

5. We need to save our food from spoilage. This preventing of spoilage of food is called food preservation.

   Some ways in which food can be preserved are as drying and salting.

   Some foods like vegetables, fruits, spices, grains and pappads are dried under the Sun to remove moisture from them. This prevents the growth of bacteria and food lasts for a longer time.

   Food can be kept for a longer time by adding salt to it. Salt takes up the moisture from the foods and prevents their spoilage. Pickles and meats are preserved by salting method.

Nut Cracker

Carbohydrates	Fats
Bread	butter
rice	mustard oil
potato	soyabean
maize	ground nut
sugar	

Proteins	Vitamins
egg	mango
pulse	apple
rajma	cabbage
fish	spinach
paneer	carrot
gram	radish
	green peas
	apple
	grapes
	papaya

Minerals
mango
apple
carrot
radish
apple
grapes
papaya

HOTS

We keep them in refrigerator.

Ch-6 : Different Kinds of Houses

Page 44

Let's Do

Students have to answer it.

Page 45-46

Exercise

A. 1. (ii) 2. (i) 3. (iii) 4. (×)

B. 1. big pucca house, bungalow

2. apartments

3. bricks, iron, cement

4. dome like

5. thick, high

C. 1. F 2. F 3. T 4. F

5. F

D. 1. We need a house to live in. It protects us from heat, cold, wind, dust and animals.

2. Some areas receive heavy rainfall throughout the year. Such areas are prone to floods. Houses in these areas are built on stilts and raised platforms to protect them from floods. These houses have sloping roofs which allow the rainfall to slide off.

3. The types of houses people live in depend on the following factors:
   - Climatic conditions of the place
   - Materials available at the place
   - Economic condition of the people

4. Some people use house on wheels, called caravans, to travel from one place to another.

5. All of us live together with our family members in a house. Our house is built in a particular area. The area around our house is called our neighbourhood. The people living in our neighbourhood are called our neighbours.

   Living in harmony with our neighbours is a good thing. We should share our joys and sorrows with them. We should help each other in times of need.

Nut Cracker

1. Pucca houses - towns and cities
2. Kutcha houses - villages
3. Igloo - Arctic and polar regions
4. Boat houses - Kerala and Srinagar
5. Multistoryed houses - cities

HOTS

tent houses

Ch-7 : Helping Each Other

Page 53-54

Exercise

A. 1. (iv) 2. (iii)

B. 1. earthquake

2. cholera, dysentry
3. cyclone, hurricane, typhoon
4. thin piece of cardboard
5. upright with head slightly tilted to the backward direction

C. 1. A break or a crack in a person's bone is called a fracture. It can be caused due to a fall or an accident. In case of a fracture, use thin pieces of cardboard or wood or even a plastic scale as a splint. This splint can be tied gently around the area of the fracture. Take the victim to a doctor as soon as possible without moving the fractured part.

2. In case of minor cuts and wounds, clean the area with a cotton ball dipped in an antiseptic like Dettol or Savlon. Apply antiseptic cream. Cover the wound with a cotton gauze and tie a bandage around it. In case of serious cuts and wounds, the victim should be taken to a doctor as soon as possible. He may require stitches on the cut.

3. In case of minor burns, wash the burnt area with cool water for 10-15 minutes and apply an antiseptic cream like Burnol on it. If the burns are severe, rush the patient to the doctor.

4. Sprains are injuries to muscles or joints. It can result in swelling and pain in that area. Wrap some ice cubes in a clean cloth and apply it to the sprained area. Apply an anti inflammatory cream on it and tie a crepe bandage around the sprained area.

D. 1. An act of nature which causes a great damage to life and property is called natural calamity or a disaster. Some natural calamities are earthquakes, floods, tsunamis, cyclones and droughts.

2. A cyclone is a powerful spinning storm which rotates around an eye or a centre. It is accompanied by strong winds and heavy rain. Cyclones are also called hurricanes and typhoons.

   Cyclones can destroy buildings and uproot trees. Roads, bridges, vehicles, ships and electric poles are also destroyed.

   - Listen to all cyclone related reports and announcements made by the government.
   - Shift to a safer area and take shelter with your relatives or friends living in other areas.

3. In case of an earthquake,

   - Get out of your building and move to an open area if possible.
   - If you are indoor, do not stand near glass windows, doors, mirrors, heavy almirahs or electric appliances.

- Move under a study table or a bed.
- Do not use lifts or stairs.
- If you are in a vehicle, park it along the roadside and stay in it. Do not park it near trees or tall buildings or electric poles.
- If you are outdoor, do not stand near tall buildings, electric poles, trees or signboards as they can fall on you and hurt you.
- An earthquake is measured on the Richter Scale.

4. Government organisations, non-government organisations (NGO) and other charitable groups help people to overcome the disaster.

   Some of the ways in which these agencies help people are as follows :

   - Food and water is provided to affected people.
   - Injured persons are given first aid and treatment at hospitals.
   - Temporary shelters are set up for people at many places.
   - Fire brigades help to put out fires.
   - Police and army people help in locating missing persons and uniting them with their families.
   - People are given essential things like clothes, medicines, blankets and many other things.

5. Accidents can occur anywhere and at any time. First aid is the emergency or immediate care we can provide when a person is ill or injured until full medical treatment is available.

   In case of an emergency, we should stay calm, act fast and try to arrange a doctor or an ambulance. In the meantime, we can give first aid to the victims. It can save a person's life or stop his injuries from getting worse. In case of minor burns, wash the burnt area with cool water for 10-15 minutes and apply an antiseptic cream like Burnol on it. If the burns are severe, rush the patient to the doctor.

Nut Cracker

1. flood
2. earthquake
3. tsunami
4. typhoon, cyclone

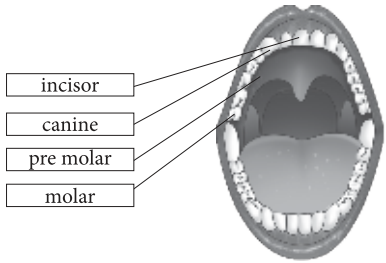
HOTS

(b) in an open field

Ch-8 : Digestion of food

Page 55

Let's Start



Page 57-58

Exercise

A. 1. (iv) 2. (iv) 3. (iii)

B. 1. small intestine 2. anus
3. food pipe 4. kidney
5. small, food

C. 1. F 2. T 3. T 4. T
5. T

D. 1. The food we eat cannot be used by our body directly. It has to be broken down into its simpler forms. This breakdown of food into simpler forms is called digestion of food.

2. The digestion of food starts in our mouth and ends in the large intestine.
3. Saliva contains chemical substances called enzymes. These enzymes break down carbohydrates into sugars like glucose. This is the start of digestion of food.
4. The small intestine is a very long and coiled tube. The walls of the small intestine produce more digestive juices. The pancreas and the liver too pour their juices into the small intestine. The food is now completely digested with the help of these juices. The walls of the small intestine contain a network of blood vessels. The digested food is absorbed by the blood present in them and carried to different parts of our body.
5. TIPS FOR GOOD DIGESTION :
   - Eat a balanced diet.
   - Drink at least 8-10 glasses of water in a day. Water helps in the digestion of food.
   - Include green vegetables and salads in your diet. The roughage present in them helps the food to get digested properly.
   - Eat food at fixed timings : Never overeat.
   - Have your dinner at least three hours before you go to bed.
   - Take small bites of food and chew it well.

Ch-9 : Food for Plants

Page 60

Let's Do

- Edible roots : carrot, radish
- Edible stems : onion, ginger
- Edible leaves : tulsi, neem
- Edible seeds : ground nut, gram
- Edible flowers : broccoli, cauliflower

Page 62-63

Exercise

A. 1. (i) 2. (i) 3. (iii) 4. (i)

B. 1. chlorophyll 2. stomata
3. starch 4. parasitic
5. insectivorous

C. 1.


Sundew plant


Pitcher plant


Venus flytrap

D. 1. Stomata - carbon dioxide
2. Insectivorous - pitcher plant
3. Parasite - Amarbel
4. Saprophyte - yeast

E. 1. Some living things like plants prepare their own food. They are called producers.
2. Some living beings like animals and human beings depend on others for their food. They are called consumers.
3. Plants prepare their food with the help of water and carbon dioxide in presence of sunlight and chlorophyll. Chlorophyll is a pigment present in green parts of a plant. Leaves are called food factory of the plant. Water is absorbed by roots of the plant. This water reaches the leaves through the stem. Carbon dioxide is present in the air around them. It is taken in by the leaves through tiny openings, called stomata, present on the surface of the leaf. Chlorophyll helps to trap the sunlight. This is called photosynthesis. During photosynthesis, sunlight converts carbon dioxide and water to glucose in the presence of chlorophyll. Oxygen is also given out in the process.
4. The gas consumed during the photosynthesis is carbon dioxide and released in it is oxygen.

5. Some plants do not contain chlorophyll. They cannot make their own food. They depend on others for their food. They can be classified as parasitic plants and saprophytic plants. Parasitic plants get their nutrients from another living plants. They have modified roots which penetrate the host plant and extract food and water from it. Cuscuta or amarbel is an example of parasitic plants. Saprophytic plants get their nutrients from dead or decaying material of plants and animals. Some examples of saprophytes are yeast, mushroom and rhizopus. Most mushrooms we see growing in gardens and open areas are not edible.

Nut Cracker

1. Green plant - spinach
2. Parasitic plant - amarbel
3. Saprophytic plant - mushroom
4. Insectivorous plant - pitcher plant

HOTS

No, because chemical comes out of its leaf that can wound my finger.

Ch-10 : Plants : Reproduction

Page 69-70

Exercises

A. 1. (ii) 2. (ii) 3. (i)

B. 1. rose 2. spores

3. radicle, plummule 4. spores

5. pollination

C. 1. potato, tomato

2. pea, poppy

3. water lily, hydrilla

4. pea, beans

5. rose, dahlia

6. algae, fungi

D. 1. Some plants have one cotyledon in their seeds. They are called monocots.

Some examples of monocots are wheat, corn, sugarcane, rice, banana, onion and ginger. Some plants have two cotyledons in their seeds. They are called dicots. Some examples of dicots are pea, bean, mint, peanut, tomato and lettuce.

2. The process by which a seed grows into a seedling is called germination.

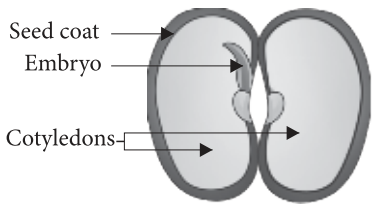
Germination of a seed occurs only when it gets the following :

- Sunlight
- Water
- Oxygen
- Suitable temperature

Water helps to soften the seed coat. The food stored in cotyledons is changed into a soluble form by water. The embryo uses it to grow.

- Oxygen is required by the seeds to breathe.
- Suitable temperature is very important for the germination. The temperature should neither be too high, nor too low.
- All seeds need sunlight to germinate.

3.



4. If seeds fall too close to the mother plant, they will have to compete for air,

minerals and sunlight. They will not germinate properly and many of them will die. So, nature has a process to scatter seeds away from the mother plant. This scattering of seeds to far away places is called dispersal of seeds. Here are some methods of dispersal of seeds.

- Dispersal by water
- Dispersal by winds
- Dispersal by animals and human beings
- Dispersal by bursting

5. Reproduction in some plants happens with the help of leaves, stems or roots. Such reproduction is called vegetative propagation.
   - Leaves of plants like bryophyllum have small buds growing on their edges. Each of these buds can grow into new plants on coming in contact with the soil.
   - Stems of some plants like rose, dahlias and money plant can be cut and used to grow new plants. Some underground stems like potato, lilies and ginger have nodes or buds on them. These buds can grow into new plants.
   - Roots of plants like sweet potato can be used to grow new plants.

Nut Cracker

1. seed
2. spores
3. leaves
4. stem
5. root

HOTS

There is a white outings caused by the germination of food.

Ch-11 : Saving Our Forests

Page 71

Let's Start

1. (a) oak (b) pine
2. (a) tulsi (b) neem
3. (a) apple (b) grapes
4. (a) sunflower seeds (b) mustard
5. (a) cardamon (b) black pepper
6. (a) brinjal (b) tomato

Page 75

Let's Do

Van Mahotsav is the 'tree festival week' starting from 1st July to 7th July every year by the Government of India and different governmental and non-governmental organisations. The main funtion is the plantation of trees to keep the environment green.

Page 76-78

Exercise

A. 1. (iii) 2. (iv) 3. (ii) 4. (i) 5. (i)

B. 1. sacred grove 2. pulp 3. reserves 4. mangrove 5. Uttarakhand

C. 1. T 2. F 3. F 4. T 5. T

D. 1. Forests are useful to us in following ways:
   - Forests act as habitat for many animals, birds and insects.
   - Forests give us many products like paper, plywood, timber, pulp, gums, resins, bamboo and fodder.
   - We also get medicines, spices, herbs and lac from forests.

- Forests prevent soil erosion as roots of trees bind the soil and prevent their washing away.

2. Large scale cutting down of trees is called deforestation. Due to growing population, a large number of forests are being cleared to build houses and agricultural areas. Forests are also being cut to build factories and roads. Trees are being cut to get wood for furniture.
3. Planting of trees on a large scale is called afforestation. It helps to increase the forest cover. For afforesation, trees should be selected according to the climate of that area.
4. Chipko Movement. began in 1970s in Uttarakhand and was a non-violent protest. Gaura Devi, Chandi Prasad Bhatt, Suraksha Devi and Sunder Lal Bahuguna are some people who played an important role in this movement. In 1974, when some contractors came to cut trees in Reni village of Chamoli, local women led by Gaura Devi confronted them. The contractors shouted at and abused the women and threatened them with guns. However, the women resorted to hugging the trees to save them from being cut. Gradually, many more people joined in the hugging of trees. Ultimately, after four days, the contractors left. This movement came to be known as the Chipko movement.
5. Forests can be saved in the following ways:

   Clearance of forests for agriculture and habitation purpose should be avoided.

   Trees in forests should be protected from diseases caused by viruses, fungi and other organisms. This can be done by spraying chemicals and medicines in the forests or on the trees.

   Wood is mostly used as a fuel. To protect our forests, alternate sources of energy such as solar energy, wind energy and biogas like gobar gas should be used. Paper obtained from wood pulp, should be used less. We should not waste paper. We should use recycled paper and use both sides of a paper sheet. We can use e-bills and e-receipts instead of paper bills and receipts.

   Nowadays, many new techniques of making paper which use straw, paddy and wheat husk instead of wood pulp are being developed.

Nut Cracker

1. Assam
2. Uttarakhand
3. Madhya Pradesh
4. Rajasthan
5. Karnataka

HOTS

I shall inform my teacher/guardian, etc.

Ch-12 : Sense Organs of Animals

Page 83-85

Exercise

A. 1. (ii) 2. (iv) 3. (iii) 4. (iv)

B. 1. T 2. F 3. T 4. F

5. T

C. 1. Ant - pheromones

2. kiwi - nostrils

3. Bee - antennae

4. Fish - whiskers

5. Dolphin - ultrasonic

D. 1. Animals communicate with each other to pass information. Some examples are as follows:

Ÿ Dogs claim their territory by peeing on a bush or a lamp post in that area.

- Monkeys make out a warning when any predator is near.

2. Kiwis have external nostrils at the tip of their beaks. This helps them to find food even beneath the soil.

3. Bats emit high pitched sounds called ultrasonic sounds. They use echoes of these sounds to locate their prey, enemies and predators.

4. Owls can see even at night. Owls have eyes which face directly forward, giving them a wider range of vision

5. Catfish has tiny hair along the side of its body which helps it to detect earthquakes many days in advance.

Nut Cracker

Bodypart Used	Animal
1. External nostrils at the tip of beaks	kiwi
2. Tongue	snake
3. Antennae	ant and mosquito
4. Smell receptors in trunk	elephant

HOTS

I shall prevent him to do so.

Ch-13 : Useful Animals

Page 90

Exercise

A. 1. been or pungi

2. sheep, goat

3. poultry

4. lion, elephant, monkey

5. mulberry

B. 1. Animals are very useful for us. We get many things from animals.

- Animals like buffalo, cow, goat and sheep give us milk. Milk is considered as a complete food. Growing children should drink milk as it is necessary for their growth and strong bones and teeth.
- Milk is used to make many dairy products like butter, ghee, cheese and curd.
- Animals like sheep, goat and rabbit give us wool and fur. Wool is used to make sweaters, socks, shawls, blankets, coats and carpets.

2. Some people catch snakes and perform street shows with them. They are called snake charmers. Snakes appear to dance when the charmer plays and waves a musical instrument called been or a pungi around them. Although snakes have no external ears and cannot listen to the music of the been, they appear to dance as they follow the movements of the been.

3. Many animal species have ceased to exist on earth. They are called extinct animals. Some examples of extinct animals are dodo, woolly mammoth, Tasmanian tiger and Great ark. They have become extinct due to

destruction of their habitats or because they are no longer able to survive in the changing environment.

4. Some animals are on the verge of becoming extinct. They are called endangered animals. Some examples of such animals are blue whale, giant panda, Asian elephant, snow leopard, and tiger. Animals are becoming endangered due to destruction of their habitat and also due to air, water and land pollution.

   Government has set up many wild life sanctuaries and national parks to protect animals. Hunting and poaching (illegal hunting) of animals in these areas is completely banned. In order to protect tigers, our government launched Project Tiger in 1973. Under this project, hunting of tigers was completely banned

5. In order to protect tigers, our government launched Project Tiger in 1973. Under this project, hunting of tigers was completely banned. A large number of tiger reserves were set up. Many people are working to save our animals from becoming extinct.

Nut Cracker

Extinct animals : Orangutan, Dodo, Dinosaur, Sea otter

Endangered animals : Rhino, Tiger, Blue whale, Giant Panda, Gorilla, Ghariyal, Chmipanzee, Sea turtle

HOTS

I shall discuss with my friends and teacher about that endangered animal and find out ways to solve the problem.

Ch-14 : Water

Page 96

Let's Do

Floating things : piece of chalk, thermocol piece, wood, rubber ball, plastic toy

Sinking things : stone, pencil, pen, coin, iron nail

Page 97

Exercise

A. 1. (ii) 2. (ii)

B. 1. soluble 2. metal, plastic

3. baolis 4. waterwheel

C. Things that will dissolve in water:

(a) coffee powder (b) ice

(c) fruit juice (d) detergent

(e) black salt (f) sugar

(g) honey

D. 1. Water is used for many purposes like drinking, bathing, washing, watering our plants and irrigation of our crops.

2. Baolis or stepwells were circular or rectangular in shape with steps on all sides. They were generally built by nobles of the area. Baolis were used to store rainwater. They were used for drinking purposes and on social gatherings. Something, rooms were built on their sides which were used by the travellers as resting places. Everyone in the village could draw water from these baolis.

3. In towns and cities, water from the rivers is purified and stored in large tanks. From here, water is taken to our houses through a network of pipes. Our houses have water tanks for water

storage. From these tanks, water reaches our taps through pipes.

4. When a thing dissolves completely in water, a solution is formed. The thing present in lesser quantity in a solution is called a solute while the thing present in large quantity is called a solvent

5. Some things can mix or dissolve in water. They are said to be soluble in water. Some examples of things which are soluble in water are salt, sugar, milk and coffee powder

Nut Cracker

Name of the object	Float	Sink
1.  Pencil		✓
2.  Hammer		✓
3.  Cotton ball	✓	
4.  Crayon	✓	
5.  Balloon	✓	
6.  Coin		✓

HOTS

We can filter water to make it clean.

Ch-15 : Water Life

Page 104-106

Exercise

A. 1. (a) 2. (a) 3. (a) 4. (c) 5. (c)

B. 1. T 2. F 3. T 4. F 5. T

C. 1. Plants which live in water are called aquatic plants

2. Aquatic animals live in water for most of their lives. Aquatic animals have special features which help them to survive in water.

3. Malaria is caused by the bite of a female Anopheles mosquito. When a female mosquito bites a person having malaria, the parasite present in his blood infects the mosquito. When this infected mosquito bites a healthy person, the parasite in the infected mosquito is transferred to the blood of the healthy person and he gets malaria.

   A person suffering from malaria shows the following symptoms :

   - Sensation of cold with shivering
   - Tiredness
   - Fever, headache and vomiting
   - Sweats, followed by a return to normal temperature

4. Free floating aquatic plants are found floating on the surface of water. Their roots are not attached to the bottom of the water body. They have air filled cavities which make them light and help them to float on water. Some examples of free floating aquatic plants are water hyacinth, water lettuce and duckweed.

   Submerged plants grow completely underwater. Their roots are attached to the bottom of the water body. They have narrow leaves which have no stomata. They breathe through their body surface. They absorb carbon dioxide and thus help to clean water. Some examples of submerged plants are tape grass , hydrilla and vallisneria.

5. Crustaceans are a group of aquatic animals that have a hard shell. Many of them feed on dead matter in the ocean.

However, some of them are carnivorous and hunt for their food. Some examples of crustaceans are crabs, prawns, lobsters and shrimp. They breathe through their gills

Nut Cracker

1. Molluscs:	octopus
2. Submerged plant:	tape grass
3. Fixed floating plant:	lotus
4. Free floating plant:	water hyacinth
5. Aquatic birds:	duck
6. Aquatic mammals:	dolphin
7. Aquatic reptiles:	alligator
8. Amphibians:	toad

snail
hydrilla
water lily
duckweed
pelican
seal
turtle
salamander

HOTS

Aquatic life is reducing because water in rivers and seas are being polluted or drying due to pollution. Aquatic plants and animals cannot survive in it.

Ch-16 : Monuments of India

Page 111-113

Exercise

A. 1. (iii) 2. (iv) 3. (ii) 4. (iv)

B. 1. Taj Mahal

2. Hyderabad, Telangana

3. Sanchi Stupa

4. Red Fort, New Delhi

5. Queen Mary

C. Answer is already given. Students have to expand it.

D. 1. There are many monuments, like old buildings, forts, temples, mosques, etc. in India, which remind us about the glorious history of India. These monuments are parts of our history.

2. The Taj Mahal was built by the Mughal emperor Shah Jahan in the memory of his wife Mumtaz Mahal.

3. The Sanchi Stupa is situated in Sanchi Town in Madhya Pradesh. It was built by Emperor Ashoka in 3rd century B.C. It is a hemispherical building made of bricks. It is built over the relics of Buddha. It has an umbrella like structure on its top. Sanchi was the birth place of Ashoka's wife Devi and the venue of her and Ashoka's marriage.

4. The Red Fort is a historical fort in Delhi. It served as the main residence of Mughal Emperors. It was built by Emperor Shah Jahan in 1639. It is made of red sandstone. It was designed by Ustad Ahmad Lahauri. It consists of a row of Pavilions, connected by a water channel called 'Stream of Paradise'. It contains an area called Diwan-i-Aam where the emperor met common people and Diwan-i-Khaas where the emperor met his ministers and other dignitaries. Every year, our Prime Minister hoists the National Flag on Red Fort on the Independence Day.

5. We too can contribute to protect our monuments in the following ways:

- Stop anyone else scribbling on the walls.
- Do not scratch or scribble on the walls of the monuments.

- We should not litter.
- We can participate in the regular cleanliness drives initiated by the government and other organisations.
- We should spread awareness about these monuments and their importance.

Nut Cracker

1. Delhi
2. Agra
3. New Delhi
4. Hyderabad, Telangana
5. Sanchi, Madhya Pradesh
6. Mumbai, Maharashtra

HOTS

I shall first tell him not to do so or tell my teacher or parents about it.

Ch-17 : Fuels

Page 119

Exercise

A. 1. hydrogen
2. steam gas, electricity, fire
3. refineries
4. Compressed Natural Gas
5. Vegetable oil or animal fats

B. 1. F 2. T 3. T 4. T
5. F

C. 1. Alternate fuel - Bio-diesel
2. LPG - Cooking
3. Fossil fuel - Coal
4. Petrol - Car
5. CNG - Green fuel

D. 1. Fossil fuels are one of the most important sources of energy. Fossil fuels are formed from the remains of dead and buried plants and animals due to excessive heat and pressure on them for millions of years. They are present deep under the ground. Fossil fuels include natural fuels like coal, petroleum and natural gas. Fossil fuels are present in limited quantity in nature. They are called non-renewable source of energy as they cannot be created once they are finished.

2. Fossil fuels are called non-renewable source of energy as they cannot be created once they are finished.

3. Fossil fuels are used for the following:
   - Fossil fuels are used to generate electricity.
   - Fossil fuels are used for cooking and heating.
   - Fossil fuels are used as a fuel in vehicles, trains, ships and aeroplanes.

4. Here are the ill effects of burning fossil fuels:
   - Burning of fossil fuels causes air pollution. Huge amounts of mercury, sulphur and lead particles are produced and emitted in air. This causes many health problems like respiratory problems in people. Air pollution also causes smog and acid rain.
   - Drilling of oil and natural gas causes water pollution. Contamination of ground water, lakes and seas occurs as a result.
   - Burning of fossil fuels cause global warming.

5. We can use alternate fules in place of fossil fuels. Bio-diesel and ethanol are alternate fuels. Bio-diesel is

manufactured from animal fats, vegetable oils, etc.

Ethanol is prepared from corn and sugarcane.

Nut Cracker

Students have to find out and write the answer from internet.

HOTS

If we reduce the use of fossil fuels, it can reduce air pollution.