

AMBER-CLASS-4

Semester-1

ANSWER KEY



English

1. Tall Trees

Learning Words

- | | |
|---------------|-----------------|
| (b) relatives | (c) furniture |
| (d) people | (e) actions |
| (f) animals | (g) professions |

Comprehension

- (a) Tall trees have their feet in the earth and head in the sky.

(b) Trees help the birds to rest and shelter them in safe nest.

(c) The moon comes at night.

(d) The poet says that the tall trees watch the clouds go by. They also shelter the birds and give them place to rest.
- (a) False (b) True

(c) True (d) False
- (a) tall trees (b) shining moon

(c) moon (d) clouds
- (a) (iii) sleep (b) (iv) roots

(c) (ii) evening (d) (iv) birds

HOCS

- Trees are blessing for humans, animals and birds. They protect the soil from flowing with rain water. They provide shadow, fruits, medicines and shelter to birds and animals.
- The medicinal trees are as follows:
 - Thorny acacia tree (*Babul*) is used for oral health.

- (ii) Neem leaves are useful in treating infection and skin problems.
- (iii) Arjuna trees are used for treating heart diseases. Some other medicinal trees are banyan tree, moringa tree etc.

Using Grammar

1. (a) live, kill (b) gets up, goes
(c) teaches, like (d) love, likes
(e) gives, use (f) wants, refuses
(g) helps, works (h) bark, bark
2. (a) have (b) are
(c) has (d) have
(e) are (f) are
(g) run (h) have

Listening Time

1. (a) started in homes
2. (c) they are burned or they breathe in smoke
3. (d) having a fire extinguisher
4. Let the children write on their own.

Writing Hour

Dear Anchal,

Your friend Neha called you to invite on her birthday which falls on next Saturday. She said that the venue of the party is MacDonald's and that you should reach the venue latest by 5 pm. She asked me to convey the message to you.

Sakshi

2. The Happy Prince

Learning World

Let the children do it themselves.

Comprehension

- As the prince had a smile on his lips so he is called the happy prince.
 - The swallow was resting between the feet of the statue of the happy prince. The swallow saw tears coming out from the eyes of the statue of the happy prince on looking up.
 - The happy prince helped the poor woman by giving one of the jewels of his sword.
 - The swallow did not go the warmer place because the happy prince requested the swallow not to leave him. This is because, the happy prince wanted to get some more work done with the help of swallow.
 - The two precious things that God ordered to bring are the broken heart of the happy prince and the dead swallow.
- False
 - True
 - True
 - False
 - True
- heart
 - dust
 - mayor
 - garden of paradise
 - sad

4. (a) (iii) migration
(b) (iii) ugly
(c) (ii) lead
(d) (ii) in the heap of dust
(e) (iii) broken heart

HOCS

1. Yes! The swallow did understand the kind heart of happy prince. Because, he was worried about the problems of his people and always wanted to help them. This is the reason that compelled the swallow to fulfill the wishes of happy prince.
2. The God likes the heart that is kind and people who lay their lives for the benefit of others and help people without any greed.

Using Grammar

1. (a) is waiting (b) is eating
(c) is sitting (d) are running
(e) are going (f) is carrying
(g) is going (h) is looking
2. (b) They are singing a beautiful song.
(c) It is standing near the door.
(d) People are looking at the stranger.
(e) We are writing the examination.
(f) Ram is playing a match.
(g) Rashmi is coming to see me.
(h) My mother is cooking food for me.

Listening Time

1. Goodah was a self-interested man. He only thought about himself. He never cared or thought about others. His behaviour was selfish.
2. It means 'freely available' and it belongs to everybody.
3. No, Goodah was not right to feel angry with the tribe for calling up a whirlwind. He was a selfish man and that is why he did not give fire to others.

Listening time

The children will practice speaking sentences with the help of their teacher.

Writing Hour

To

Date _____

The Principal

XYZ School

Subject: Application for leave

Respected Sir,

This is to inform you that my uncle's marriage falls on 21st of this month. I shall therefore not be able to come to school on Tuesday, Thursday and Friday as I shall be going to Jaipur alongwith my parents.

Please accept my request and grant me leave for three days only.

Thanking You,

Yours obedient pupil

(Your name)

HOCS

1. The depiction of angels varies across different cultures, some people believe to be like human but tall and gentle, have wings radiating light, wearing flowing robes, But these depictions are artistic and can vary.
2. Fairy tale is a work of fiction and the author has creative freedom to incorporate various magical creatures into the story. It provides layers of mythology and wonder for the readers and viewers to enjoy.

Using Grammar

1. (b) India's natural beauty
(c) The boy's shoes
(d) Mary's pencil
(e) The lion's den
(f) John's pencil
(g) The country's flag
(h) India's discovery
2. (a) Mrs. Sen's (b) boy's
(c) cousin's (d) Cyrus'
(e) child's (f) Pinky's
(g) Ajay's (h) student's

Children will learn conversation between two people with the help of their teacher.

Listening Time

1. Bumerali makes lightning by striking the ground with her stone axes mounted on long flexible handles.

2. Jambuwul is the thunder-man who travels from place to place on a large cumulus clouds of the wet season, shedding the life-giving rain on the earth beneath.
3. Yurtus are the tiny spirit children who travel on the raindrops to descend to earth and find a human mother.

Writing Hour

1. (b) They like Chinese food.
(c) Sangita is an intelligent girl.
(d) He knows the person.
(e) Paresh and Ajay do homework.
(f) The Principal looks after all children.
(g) Mumbai is a big city.
(h) She leads a happy life.
2. Trees are our green friends. Without trees we cannot live on Earth. Trees are very useful to us. They support the life of all living things. Trees are needed for making paper, furnish and build houses. When we breathe and burn, we produce carbon dioxide. Trees replace this carbon dioxide with oxygen. The green leaves of trees absorb carbon dioxide and break it up into carbon and oxygen. The leaves keep carbon dioxide and release oxygen for the use of living beings.

4. The Love-Apples

Learning Words

- | | |
|-------------|--------------|
| (a) A pinch | (b) A packet |
| (c) A sheet | (d) A heap |
| (e) A drop | (f) A piece |

Comprehension

- (a) Grandma was saying to Johny about story of tomato.

(b) The peddler used to carry buttons and threads.

(c) The peddler gave some love-apple seeds to the mother. He got those seeds in the city.

(d) The peddler warned the mother that although the flowers are small, but the fruits cannot be eaten as fruit, as they are poisonous.

(e) When mother planted the seeds, they grew and little yellow blossoms came which grew into red fruits.
- | | |
|-----------|-----------|
| (a) False | (b) True |
| (c) True | (d) False |
| (e) False | |
- | | |
|---------------|-----------------|
| (a) poisonous | (b) thread |
| (c) package | (d) ever tasted |
| (e) laugh | |
- | | |
|-----------------|---------------------|
| (a) (i) next | (b) (iv) thirteen |
| (c) (ii) sister | (d) (iii) poisonous |
| (e) (iii) red | |

HOCS

1. Botanically tomatoes are classified as fruits as they develop from the fertilized ovary of a flower. From culinary perspective, they are considered a vegetable due to their use in savory dishes. They are eaten raw in salads due to their sweet and tangy taste, juicy and crisp texture and their bright colour make salads visually appealing.
2. Mother thought that we could not be satisfied with the red tomato fruit just to look at without wanting to eat it. The pedlar did say that the fruit was poisonous.

Using Grammar

	Subject	Reflexive Pronoun
1.	(a) I	myself
	(b) He,	himself
	(c) We,	ourselves
	(d) you,	yourself
	(e) She,	herself
	(f) Ravi,	himself
	(g) They,	themselves
	(h) The homeless man,	himself
2.	(a) himself	(b) ourselves
	(c) yourself	(d) herself
	(e) themselves	(f) itself
	(g) myself	(h) yourselves

Listening Time

1. c) Are we alone in this vast universe?
2. In the middle ages, people believed that the Earth was at the centre of the universe.
3. solar system
4. Some people claim to have met alien beings from unknown galaxies.

Writing Hour

The child will write on his own looking at the picture.

5. The Dancing Princesses

Comprehension

1. (a) The king was very much disturbed to see the worn out shoes of his daughter every morning.
(b) The king sent a notice saying that anyone who could find out the secret of his daughters' worn out shoes could choose a princess for himself.
(c) The king asked the prince to leave because he could not say anything about the worn out shoes in the morning. Moreover, the prince was fast asleep on his bed before the princesses went to bed.
(d) The old woman advised the soldier not to drink anything that the princesses would give him. Also he should wear the magic cloak so that the princesses could not see

him when he follows them.

- (e) The soldier saw beautiful trees which had silver leaves at the bottom of the stairs.
2. (a) False (b) True
(c) True (d) True
(e) True
3. (a) palace (b) princes
(c) pleased (d) eldest
(e) pretended
4. (a) (ii) remembered
(b) (ii) silver leaves
(c) (iii) each boat
(d) (iv) sailed
(e) (iv) three twigs

HOCS

1. The princesses were forced to stay in their rooms. They were not allowed to see the outside world. To do away with their boredom, they befriended the princes who helped them to sneak away through the stairs to enjoy in the company of their princes.
2. The clock was not an ordinary clock but a magic clock that made the soldier invisible to others.

Using Grammar

1. (a) was waking (b) was playing
(c) were watching (d) were staying
(e) was planting (f) was barking
(g) were swimming (h) was shopping

2. (a) was explaining (b) was not doing
(c) was paying (d) were talking
(e) was studying (f) was not landing
(g) were watering (h) was raining

Listening Time

1. Would you like to have a cup of coffee?
2. When did you go to the library?
3. How did I sing?
4. Could I take your cycle please?
5. Why were you sleeping?

Writing Hour

1. (a) She was awake. She wasn't sleeping.
(b) They were studying. They weren't playing.
(c) He was cooking. He wasn't eating.
(d) We were at home. We weren't travelling.
(e) I was driving. I wasn't walking.
(f) The visitors were sleeping. They weren't talking.
(g) Sita was singing. She wasn't studying.
(h) You were eating. You weren't drinking.
2. Books are very important and we should preserve them well. We should not write on the books or make any markings with pen or pencil. We should not eat or drink anything near books because they might damage them. We should handle our books well and hold them with care. When we read books, we should not fold down the corners of the pages or fold the cover of the book back. We should not break the binding and

place books with the books open, face-down. The right place to keep our books is a shelf. We should keep our books on a shelf when we are not reading them. We should also keep books away from kids as they can tear the pages.

6. I Wonder Why

Learning Words

- | | |
|-------------|-----------|
| (a) Tendril | (b) Bark |
| (c) Vein | (d) Twig |
| (e) Pod | (f) Petal |

Comprehension

- (a) No, the poet does not know why the colour of the grass is green.

(b) They are moon and stars.

(c) The poet wants to know:

 - where can the missing bit of the moon could be found when the moon is not quite round;
 - who lights the stars when they blow out;
 - who makes the lightning flash.

(d) From the reading of the poem, we think the poet is very keen to know something that God has made and nobody could answer. He is interested to know about something which is natural and not man-made.
- (a) False (b) False

(c) True (d) False

3. (a) seen (b) rest
(c) shape (d) sky
4. (a) (i) curiosity (b) (iii) lightning
(c) (ii) woolly (d) (iv) flashes

HOCS

1. The child in the poem is talking to himself and curious to know all about what he sees in the nature.
2. The child thinks and believes that it is his father who knows all these answers but doesn't expect he would ever tell answers to him.

Using Grammar

1. (a) There are (b) There is
(c) There are (d) There is
(e) there are (f) There is
(g) There are (h) There are
2. (a) Is there (b) Is there
(c) Are there (d) Are there
(e) Are there (f) Is there
(g) Are there (h) Is there

Listening Time

1. Early people kept track of time by observing the moon, sun or some important events.
2. By noticing the moon's cycles ancient people paid attention to the changing seasons.
3. They began to mark and note time changes.
4. anniversary

Writing Hour

- A car is driven by Amar.
 - A song is sung by Asha.
 - Rice is sold by the shopkeeper.
 - Football is played by us in rain.
 - Drums were beaten by them on street.
 - Homework is done by me.
- Tree planting is an important activity for all of us. We can save our earth by planting more and more trees. The simple act of planting a tree helps the environment in so many ways. Trees filter pollution from the air, prevent soil loss, create shade, give shelter from wind and rain, provide homes for animals and make food for humans and wildlife. On the other hand, pollution means any contamination of air, soil, water and environment. Here we see air pollution in the picture. Air pollution is one of the major causes of diseases like cough, asthma and burning eyes. We should try to control pollution. Pollutants releases harmful gases and tiny particles into the air and pollutes the air. The smoke released from burning fuel from factories is the major source of air pollution.

7. Little Sunshine

Learning Words

- | | |
|-----------------|-------------------|
| (a) birth + day | (b) after + noon |
| (c) use + less | (d) every + thing |
| (e) chair + man | (f) black + board |

- (g) dragon + fly (h) some + time
(i) rain + drops (j) job + less

Comprehension

1. (a) The man and woman tended their cow and horse and worked in the fields to keep themselves busy.
(b) Nobody dared to even chop wood from that forest. As there were no paths and the trees had grown together like a wall and it was very dark to look at.
(c) The little baby was named Little Sunshine because she was the most wonderful baby. Whoever looked at her became happy at once. People also came from miles around to see her smile or touch her fingers.
(d) Little Sunshine's mother taught her to bake and sew and spin so that, she might be industrious as well as loving.
(e) The bear was a beautiful prince in reality.
2. (a) False (b) True
(c) True (d) True
(e) False
3. (a) merrily (b) chariot
(c) blind him (d) wheel
(e) horses
4. (a) (ii) fields (b) (i) wonderful
(c) (iii) industrious (d) (ii) eat
(e) (i) blind him

HOCS

1. Metamorphosis means a change of the form or nature of a thing or person into a completely different one.

The story is related to the word metamorphosis because Little Sunshine's life changes or metamorphosis from a poor man's daughter to a happy child to a princess in stages.

2. Evil spirits changing to boys or girls on television are fictional and intended for entertainment purposes or creating suspense, exploring themes of good versus evil. Such acts can also be influenced by mythological and cultural traditions.

Using Grammar

1. (a) so (b) so
(c) because (d) so
(e) so (f) because
(g) because (h) because
2. (a) I closed the window because it was cold.
(b) We walked home because there were no more buses.
(c) She quit her job so she is looking for a new one now.
(d) I'm tired today because I couldn't sleep last night.
(e) I'll be home late tonight because I have to work late.
(f) We didn't swim because the water wasn't clean.

- (g) The water wasn't clean so we didn't swim.
- (h) It was raining so I took a taxi.

Listening Time

1. Fish hawks live upon a tree over a pond, or lake, or river, or by the seaside.
2. The eagle flies at the fish hawk fiercely with its sharp bill and claws which lets the fish hawk to drop the fish thereby giving the fish to the eagle.
3. Fish hawks and eagle are alike as they both catch fish to eat.
4. Fish hawks live upon trees over a pond, or lake, or river, or by the seaside because there they can find fish easily which they eat.

Writing Hour

Our country is very big. We should all remain united to make our country strong. We all know that unity is the basic factor to build a strong nation. We can see the example of unity even in insects like ants. They work in a group and do their work more expansively than human beings. In case of humans, it is also compulsory to follow the rules of unity. Because by doing so we cannot only reach the different goals of our life but can also strengthen ourselves in front of our enemies.

8. Hansel and Gretel

Learning Words

- | | |
|--------------|------------------|
| a) disturbed | b) disheartening |
| c) hungry | d) frightened |
| e) excited | f) sad |
| g) nervous | |

Comprehension

- a) A very poor woodcutter lived in the tiny cottage.

b) They saw a strange cottage in the middle of the forest.

c) Hansel and Gretel got lost when they could not see the breadcrumbs to find their way back to their home.

d) The witch tried to eat Hansel first.

e) When the witch tried to check if the oven was hot, Gretel pushed her inside and shut the oven door. The witch thus was killed at last.
- a) True

b) False

c) True

d) True

e) True
- a) breadcrumbs

b) hugged

c) chocolate cottage

d) waiting

e) chicken bone
- a) (iii) tiny cottage

b) (i) did not like them

c) (iv) go back home

- d) (iii) chocolate
- e) (iv) not be afraid

HOCS

1. It was not fair for father of Hansel and Gretel to leave his children alone in a jungle. It is morally wrong and putting the lives of children in danger. Children are the responsibility of their parents. Abandoning them in the jungle is violation of parental responsibility.
2. Let the pupils do it themselves.

Using Grammar

1. a) does b) blew
 c) dropped d) rolled
 e) jumped, brought f) barked
 g) began h) sold, bought
2. a) rose b) blew
 c) laid d) floats
 e) quack f) bray
 g) return h) drops

Listening Time

1. The king helped the mule driver by pushing the cart out of the puddle.
2. A number of people saw the king helping the mule driver.
3. The mule driver begged for forgiveness to the king.
4. The king said although he may be a king, but as a man, he has done his duty.

Talk Time

Self Attempt

Writing Hour

To

Date _____

The Principal
XYZ School

Sub: Excuse for playing inside the classroom.

Respected Sir,

I am extremely sorry to have committed the mistake of playing inside the classroom due to which a window pane was broken. Although it happened accidentally but it is entirely my fault and I should not have played inside the classroom.

I beg you to excuse for this mistake and promise not to make such mistake in future. Please pardon me for this time.

Thanking You,

Yours obedient student,

ABC

9. Prometheus

Learning Words

- | | |
|-----------------------|----------------------|
| a) born – died | b) silent – noisy |
| c) clever – foolish | d) brave – cowardly |
| e) wet – dry | f) heaven – hell |
| g) peaceful – violent | h) suitably – unduly |

Comprehension

1. a) Prometheus was different from other gods because he did not care to live amid clouds on the mountain top. He was always busy working to make the world wiser and better than it was ever before.
- b) Jupiter refused to give fire to men because he thought that if men had fire they might become strong and wise like gods and would drive them out of their kingdom.
- c) Prometheus went to the glowing sun, took sparks of fire and brought them hidden in the hollow of a reed to the earth.
- d) Jupiter punished Prometheus by ordering two of his servants to seize Prometheus and carry him to the topmost peak of the Caucasus Mountains. Then he sent the blacksmith Vulcan to bind Prometheus with iron chains and fetter him to the rocks so that he could not move his hand or foot.
- e) Prometheus' friends were old Helios, the driver of the sun car; flocks of birds; the ocean nymphs and men. Prometheus' friends helped him in the following ways: Old Helios looked down on Prometheus and smiled, flocks of birds brought him messages from far-off lands, the ocean nymphs came and sang wonderful songs for him, and men looked up at him with pitying eyes and cursed the cruel king who bound Prometheus there.

2. (a) False (b) True
(c) False (d) True
(e) True
3. (a) Prometheus (b) a thousand things
(c) fire (d) mountain
(e) wretched
4. (a) (iv) forethought
(b) (iii) Hercules
(c) (iv) the new Golden Age
(d) (ii) poor, wretched and unhappy
(e) (iii) to warm themselves in winter

HOCS

1. In the absence of fire our ability to cook, generate heat, create tools, provide light and defend ourselves would be impaired.
2. In terms of power Jupiter gods prevailed over Titans through a conflict. But both the Jupiter and Titans held immense power.

Using Grammar

1. (a) are (b) are
(c) belong (d) wears
(e) were (f) go
(g) were (h) works
2. (a) moves (b) is
(c) shout (d) is
(e) have (f) knows
(g) is (h) gives

Listening Time

Children will listen, comprehend and write.

Writing Hour

Rahul

ABC Primary School

Delhi

Date _____

Subject - Apology for accidentally breaking glass window.

The Principal

ABC Primary School

Sir,

I express my sincere apologies for the unfortunate incident that occurred in the classroom today.

I accidentally broke a glass window while playing in the classroom.

I am sorry for my actions and assure you that such incident will not happen in future. It was an unintended mistake and I take full responsibility for my actions.

I hope you will forgive me for this incident.

your's Sincerely

Rahul

Class-4

Grammar

1. Alphabetical Order

- | | | | | |
|----|--------------|----------|----------|-------|
| 1. | animal | birthday | colour | horse |
| | dinosaurs | jacket | giraffe | lion |
| | earth | ribbon | kite | snake |
| | frog | tree | scissors | yak |
| | icecream | | x-mas | |
| | point | | | |
| | tomato | | | |
| 2. | ace | brother | bullock | comb |
| | crazy | doll | Eskimo | fish |
| | goat | igloo | jar | love |
| | mango | money | pray | snail |
| | violin | x-ray | yak | zebra |
| 3. | Self attempt | | | |

2. Sentences and their Kinds

- | | | | |
|----|-----|--------------------------------------|-----|
| 1. | (a) | I can walk five miles a day. | (✓) |
| | (b) | Nobody can read a poem. | (✓) |
| | (c) | The Principal is work. | (X) |
| | (d) | Do your duty. | (✓) |
| | (e) | Strong and hard. | (X) |
| | (f) | You face difficulty in solving sums. | (✓) |
| | (g) | Slow and steady. | (X) |
| | (h) | Sunday is a holiday. | (✓) |
| | (i) | The Himalayas mountain. | (X) |
| | (j) | He loves to eat. | (✓) |

2. SUBJECT

(a) Miss Williams

PREDICATE

going to New York tomorrow.

- (b) Your gloves are certainly dirty.
- (c) Anne's question surprised me.
- (d) Corona Virus causes infectious disease.
- (e) Sania has played eighteen matches so far.
- (f) The Students had never finished their work so quickly before.
- (g) Mrs. Black had always made her own clothes.
- (h) The boys will ask the doctor for advice.
- (i) The bridge was never completed.
- (j) Aunt Helen has just arrived for a week's visit.
- (k) The old man carefully made his way down the busy street.
- (l) The children have been playing outside all day.
3. (a) The buzzing bee (b) A closet
 (c) The eye doctor (d) The house plant
 (e) The space alien (f) The grey dolphin
 (g) My mother (h) My notebook
 (i) A big spider
4. (a) watered her flowers (b) flew the aeroplane
 (c) barked all night long (d) cut the boy's hair
 (e) slept in her crib (f) blew in the wind
 (g) ate crickets (h) fixed the sink
 (i) drove me to school

5. (a) Imperative (b) Interrogative
 (c) Imperative (d) Imperative
 (e) Exclamatory (f) Optative
 (g) Assertive (h) Interrogative
 (i) Interrogative (o) Exclamatory
 (j) Declarative (k) Exclamatory
 (l) Optative (m) Imperative
 (n) Imperative
6. (a) not (b) nothing
 (c) No one (d) no
 (e) not (f) not
 (g) nothing (h) not
 (i) no (j) not
7. (a) He is singing a new song now.
 (b) I do not like Mondays.
 (c) Cats usually do not sleep at night.
 (d) She seldom goes to the computer lab on Tuesday afternoon.
 (e) Mum and dad do not stay up late on week days.
 (f) The reporter is running to the car.
 (g) My friend does not play tennis.
 (h) His grandmother never goes skating.
 (i) I cannot see two boys.
 (j) Jack always has breakfast in the kitchen.

Chapter 3. Nouns

Test Your Learning Objectives

1. **Proper nouns** **Common nouns**
 (a) Varieties theatre, Thursday — theatre

- | | | | |
|----|------------------------------|----------------|-----------------------|
| | (b) King Midas | — | our class |
| | (c) Peter Pan | — | children |
| | (d) Peter | — | museum |
| | (e) Spider Man | — | movie |
| | (f) Friday | — | audience |
| | (g) Monday | — | costume |
| | (h) Mr. Sen | — | man |
| | (i) Delhi Zoo | — | tiger |
| | (j) India | — | world, democracy |
| 2. | (a) Abstract | (b) Abstract | |
| | (c) Common | (d) Proper | |
| | (e) Collective | (f) Abstract | |
| | (g) Common | (h) Collective | |
| | (i) Proper | (j) Abstract | |
| | (k) Abstract | (l) Collective | |
| | (m) Proper | (n) Abstract | |
| | (o) Common | | |
| 3. | (a) Honesty , policy | — | Abstract |
| | (b) Soloman
Wisdom | — | Proper,
Abstract |
| | (c) Committee | — | Collective |
| | (d) James
Student | — | Proper,
Common |
| | (e) Wisdom
Riches | — | Abstract,
Common |
| | (f) Girl, story | — | Common |
| | (g) Patience
Teacher | — | Abstract,
Common |
| | (h) Cleanliness
Godliness | — | Abstract,
Abstract |
| | (i) Sister, Doctor | — | Common |

- (j) Family — Collective
4. (a) Brotherhood (b) Scholarship
 (c) Kingdom (d) Motherhood
 (e) Friendship (f) Childhood
 (g) Neighbourhood (h) Membership
5. (a) Act – Action (b) Laugh – Laughter
 (c) Marry – Marriage (d) Free – Freedom
 (e) Grow – Growth (f) Behave – Behaviour
 (g) Appear – Appearance
 (h) Permit – Permission
6. (a) Anger (b) Hunger
 (c) Wisdom (d) Thirst
 (e) Honesty (f) Difference
 (g) Ability (h) Pleasure
7. (a) dancer (b) teacher
 (c) painter (d) rider
 (e) singer (f) creator
 (g) actor (h) worker
8. (a) Common noun — Birds
 (b) Proper noun — Nitin
 (c) Not an abstract noun — Family
 (d) Not a countable noun — Gold
 (e) Common noun — Birds
 (f) Common noun — climate
 (g) Abstract noun — Company
 (h) Collective noun — bunch

Chapter 4. Common and Proper Nouns

Test Your Learning Objectives

1. (a) Friend – Common noun
(b) Agra – Proper noun
(c) grandparents – Common noun
(d) Game – Common noun
(e) IPL – Proper noun
(f) Trophy – Common noun
(g) Teacher – Common noun
(h) UFO – Proper noun
(i) Dolphins – Common noun
(j) Sundarban – Proper noun

2. Common Nouns, Proper Nouns
 - (a) Ajit - proper
Market, vegetables – Common
 - (b) Rahul – Proper,
Cricket kit, house – Common
 - (c) brother, artist – Common
 - (d) Akbar – Proper,
emperor – Common
 - (e) Dal Lake– Proper
 - (f) father – Common,
Indian Express – Proper
 - (g) Ganga, Boy of Bengal – Proper,
delta – Common
 - (h) Bible – Proper,
holy book, Christians – Common
 - (i) Rajdhani Express, India – Proper,
train – Common

- (j) Park Street, Grand Hotel – Proper,
Car – Common
3. (a) woman – Varsha
(b) mountain – Himalaya
(c) book – Bible
(d) monument – Indian Gate
(e) holiday – Goa
(f) day – Thursday
(g) restaurant – Haldiram
(h) hotel – The Grand Taj
(i) planet – Venus
(j) actor – Ajay Devgan

Chapter 5. Collective Nouns

Test Your Learning Objectives

1. (a) swarm (b) fleet
(c) quiver (d) pride
(e) school (f) litter
(g) class (h) flight
(i) pack (j) bouquet
(k) range (l) herd
(m) parliament (n) galaxy
(o) bunch (p) army
2. (a) (vi) rice (b) (viii) lighting
(c) (v) pizza (d) (ii) flower
(e) (iii) dust (f) (i) toothpaste
(g) (iv) bread (h) (vii) stairs
3. (a) pack (b) herd
(c) bunch (d) swarm

- | | | |
|----|--------------|---------------|
| | (e) litter | (f) crowd |
| | (g) album | |
| 4. | (a) audience | (b) army |
| | (c) group | (d) puppies |
| | (e) family | (f) swarm |
| | (g) herd | (h) committee |

Chapter 6. Countable and Uncountable Nouns

Test Your Learning Objective

- | | | | |
|----|------------|---|---|
| 1. | Oil | — | U |
| | Flour | — | U |
| | Honey | — | U |
| | Eggs | — | C |
| | Chocolate | — | C |
| | Onions | — | C |
| | Paper | — | C |
| | Sugar | — | U |
| | Cheese | — | U |
| | Salt | — | U |
| | Meat | — | U |
| | Lemons | — | C |
| | Cup of tea | — | C |
| | Cake | — | C |
| | Peas | — | U |
| | Pasta | — | U |
| | Tea | — | U |
| | Carrot | — | C |
| | Fish | — | C |
| | Grass | — | U |
| | page | — | C |

2. (a) children – Countable
 (b) scientists – Countable
 (c) butter – Uncountable
 (d) windows – Countable
 (e) glue – Uncountable
 (f) waiters – Countable
 (g) glasses – Countable
 (h) bread – Countable
 (i) drivers – Countable
 (j) policemen – Countable
 (k) bottles – Countable
 (l) juice – Uncountable

Chapter 7. Nouns: Number

Test Your Learning Objectives

- | | | | | |
|----|---------|-------------|---------|--------|
| 1. | Person | Place | Animal | Things |
| | John | France | Sparrow | Desk |
| | Soldier | Country | Ostrich | Doll |
| | Maya | Post office | Parrot | Plate |
| | Sonia | Delhi | Tiger | Book |
| | Angel | Village | Snake | Watch |
| | Mall | Donkey | Lotus | Cage |
2. (a) book – S (b) shoes – P
 (c) room – S (d) dog – S
 (e) clothes – P (f) boots – P
 (g) cat – S (h) tickets – P
 (i) person – P (j) person – S
3. (a) birds (b) books
 (c) brothers (d) patients
 (e) policemen (f) children

- (g) mango (h) cradles
(i) caves (j) mosquitoes
4. (a) fishes (b) children
(c) knives (d) leaves
(e) deers (f) teeth
(g) mice (h) feet
(i) octopuses (j) geese
5. (a) boys (b) friend
(c) chimneys (d) mangoes
(e) car (f) lion
(g) bread (h) castle
(i) dog (j) fishes
6. (a) wolves – sheep
(b) books – shelves
(c) policemen – thieves
(d) chiefs – armies
(e) ladies – keys – locks
(f) children – kites
(g) trees – leaves
(h) servants – chimneys
(i) cars – batteries
(j) doctors – teeth
7. (a) leaf – tree (b) woman – bench
(c) thief – knife (d) hero – horse
(e) rose – vase (f) fox – acorn
(g) table – scratch (h) dog – child
(i) girl – doll (j) bush – hut

Mathematic

Chapter-1 Place Value

Try This!

Expanded form – $90000 + 9000 + 900 + 90 + 9$

In words – Ninety nine thousand nine hundred ninety nine

Exercise 1.1

- (a) 2,436 (b) 6,040 (c) 21,308
(d) 41,050 (e) 1,35,043 (f) 9,50,001
- Do it yourself,
- (a) (iv); (b) (v); (c) (ii);
(d) (i) (e) (iii)
- (a) Eighty-nine thousand four hundred fifty-six.
(b) Thirty-four thousand three hundred seventy-two.
(c) Four lakh sixty-seven thousand thirty.
(d) Three lakh seventy thousand three hundred seventy-one
- (a) 39,005 (b) 44,767 (c) 70,695
(d) 7,08,056 (e) 10,00,682
- (a) 56,975 (b) 35,731 (c) 40,753
(d) 2,20,042
- (a) $70,000 + 3,000 + 800 + 70 + 5$
(b) $60,000 + 4,000 + 90 + 8$
(c) $30,000 + 700 + 70$
(d) $5,00,000 + 20,000 + 5000 + 600 + 80 + 4$
- (a) 100 (b) 600 (c) 3,000

- (d) 4,000 (e) 700 (f) 3,00,000
(g) 7 (h) 6,00,000
9. (a) 7,450; 7,460; 7,470; 7,480
(b) 23,790; 23,800; 23,810; 23,820
10. (a) 8,680; 8,780; 8,880; 8,980
(b) 46,939; 47,039; 47,139; 47,239
11. (a) 5,674; 6,674; 7,674; 8,674
(b) 49,003; 50,003; 51,003; 52,003
12. (a) 54,427; 64,427; 74,427; 84,427
(b) 48,679; 58,679; 68,679; 78,679
13. (a) 606 (b) 60,666 (c) 66,000
(d) 60,006
14. (a) 3600 (b) 3960 (c) 360
(d) 396

Exercise 1.2

1. (a) $<$ (b) $<$ (c) $>$ (d) $<$
2. (a) 3,932 (b) 9,919 (c) 6,606
(d) 9,810
3. (a) 43,971 (b) 19,964 (c) 84,931
(d) 98,632
4. (a) 23,902; 30,939; 30,992; 30,999
(b) 4,961; 14,961; 40,196; 42,961
(c) 68,139; 68,391; 86,319; 98,631
(d) 89,463; 94,846; 98,346; 2,48,396
5. (a) 5,693; 5,396; 4,639; 3,496
(b) 9,62,023; 3,23,216; 69,032; 6,242
(c) 9,90,876; 9,80,776; 7,90,866; 7,76,690

- (d) 7,89,032; 1,00,100; 1,00,000; 9,816
(e) 8,20,913; 5,10,482; 98,436; 46,931

Try This

Greatest 4 digit no. – 9 8 7 6

Smallest 6 digit no. – 1 0 2 3 4 5

Exercise 1.3

- | 1. Greatest number | Smallest number |
|--------------------|-----------------|
| (a) 9832 | 2389 |
| (b) 8730 | 3078 |
| (c) 97653 | 35679 |
| (d) 76510 | 10567 |
| (e) 976541 | 145679 |
2. (a) 8762 (b) 204568 (c) 865410
(d) 12479 (e) 98410

Try This

- (a) (i) 99,999 (ii) 11,111
(b) (i) 66633 (ii) 33366

Exercise 1.4

- | | | |
|--------------|------------|--------------|
| 1. (a) 70 | (b) 90 | (c) 340 |
| (d) 660 | (e) 580 | (f) 730 |
| 2. (a) 800 | (b) 5,200 | (c) 4,700 |
| (d) 9,400 | (e) 90 | (f) 58,400 |
| 3. (a) 8,000 | (b) 8,000 | (c) 1000 |
| (d) 7,000 | (e) 68,000 | (f) 7,64,000 |

Exercise 1.5

- (a) 80 apples (b) ` 800 (c) ` 2,800
(d) 3000 chairs

Exercise 1.6

- (a) 18 (b) 30 (c) 40
(d) 29 (e) 47 (f) 49
- (a) XIX (b) XXV (c) XXXIII
(d) XLVIII (e) L (f) LXXIV
- (a) XVIII; XX
(b) XXXIX; XLI
(c) XXXIX; XU
(d) LXXXIX; XCI
- (a) < (b) > (c) > (d) >
- (b) XX, (c) IX, (d) XXX
(e) IV

Play Based Learning –NEP 2020

4 = Four

Higher Order Cognitive Skills (HOCS)

- (a) Seventy-eight thousand five hundred forty-nine.
(b) Sixty-five thousand one hundred two.
(c) Five lakh eighty-nine thousand three.
(d) Nine lakh ninety-nine thousand ninety-nine.
- (a) 83,060 (b) 65,902 (c) 4,05,082
(d) 7,51,322
- (a) 18,802; 38,159; 43,197; 2,00,403
(b) 27,318; 54,961; 65,839; 7,10,863

4. (a) 5,14,964; 3,51,964; 3,51,694; 3,51,496
 (b) 3,10,284; 94,631; 88,031; 64,319
5. (a) 80 (b) 900 (c) 50,000
 (d) 700
6. (a) 53,920; 54,020; 54,120; 54,220
 (b) 45,170; 55,170; 65,170; 75,170
7. (a) 370 (b) 5,500 (c) 25,000
8. (a) XXVII (b) XXXIX (c) XV
 (d) XXV (e) XXXIII

Chapter-2

Exercise 2.1

1. (a) 6,824 (b) 4,648 (c) 14,158
 (d) 7,476 (e) 3,549 (f) 6,534
 (g) 97,799 (h) 1,28,649 (i) 44,435
2. (a) 96,777 (b) 89,734 (c) 26,651
 (d) 65,416 (e) 58,876 (f) 51,904
3. (a) ₹ 33,857 (b) ₹ 69,190
 (c) 35,683 people (d) 56,540 books
 (e) ₹ 14,985

Logical & Critical Thinking—NEP 2020

	1	2	3	
1	9	4	7	9
	2		5	
4	8	7	2	6
	7		8	
5	9	1	5	7
				8

Exercise 2.2

- | | | |
|-----------|------------|-----------|
| (a) 4,268 | (b) 2,812 | (c) 4,800 |
| (d) 1,004 | (e) 3,528 | (f) 1,502 |
| (g) 6,249 | (h) 14,948 | |
- | | | |
|-----------|-----------|------------|
| (a) 1,104 | (b) 3,429 | (c) 3,058 |
| (d) 8,564 | (e) 4,743 | (f) 36,022 |
- | | | |
|-----------|-----------|------------|
| (a) 3,977 | (b) 4,573 | (c) 21,648 |
| (d) 1,112 | (e) 3,141 | (f) 3,761 |
| (g) 4,650 | (h) 4,653 | (i) 6,131 |
| (j) 5,441 | | |
- | | | |
|------------|------------|------------|
| (a) 1,163 | (b) 3,164 | (c) 3,706 |
| (d) 24,168 | (e) 30,735 | (f) 21,479 |
- | | | |
|-----------------------|--|--|
| (a) 30,414 carnivores | | |
| (b) 141 Panthers | | |
| (c) 11,738 deers | | |
| (d) 7,949 trees | | |
| (e) 4,034 monkeys | | |
| (f) 1,336 | | |

Exercise 2.3

- | | | |
|---------|-----------|-----------|
| (a) 74 | (b) 85 | (c) 86 |
| (d) 740 | (e) 700 | (f) 950 |
| (g) 292 | (h) 170 | (i) 427 |
| (j) 330 | (k) 3,071 | (l) 5,144 |
- | | | |
|-----------|---------|-----------|
| (a) 3,340 | (b) 320 | (c) 2,240 |
| (d) 231 | (e) 90 | (f) 98 |
| (g) 80 | (h) 220 | |

Exercise 2.4

- ₹ 1305.25; ₹ 194.75
 - ₹ 371.50; ₹ 28.50
 - ₹ 499.75; ₹ 0.25
-

Amount		Amount							Paise		
Rupees	Paise	500	100	50	20	10	5		1	50	25
225	50		2		1		1			1	
676	75	1	1	1	1		1		1	1	1
277	00		2	1	1		1		2		
989	25	1	4	1	1	1	1	4			1
301	75		3						1		
858	5	3		1			1	3			

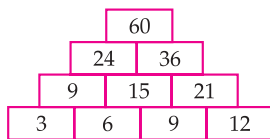
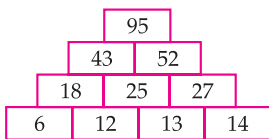
3.

Use following notes to make	Notes (in ₹)							
	100	50	20	10	5	2	1	
	1		1					1
		2		2	1			3
		2	1					8
					24	4		
				12	1			3

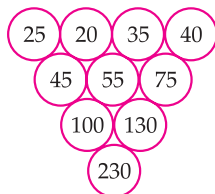
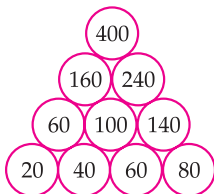
- ₹ 111.25, ₹ 106.50, ₹ 135.00, ₹ 128.50, ₹ 214.75
- ₹ 140.00
 - ₹ 589.00
 - ₹ 1086.00
 - ₹ 9,427.50
 - ₹ 182.00 (Wrong question don't consider this question)

Exercise 2.5

- (a) 25, 30, 35 (b) 55, 66, 77 (c) 42, 36, 30
(d) 21, 25, 29
- (a) 6, 9, 12, 15, 18
(b) 10, 14, 18, 26
(c) 4, 9, 16, 25
(d) 155, 255, 355, 455, 555, 655
- (b) (c)



- (d) (e)



- (a) 12, 5 (b) 6, 7 (c) 6, 5
(d) 10, 22
- (a) 33 (b) 22

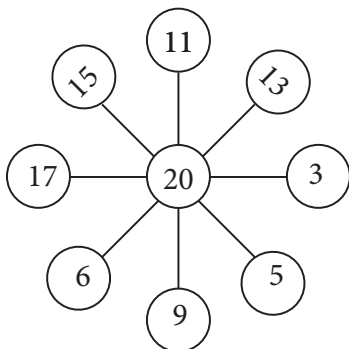
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91	112	97
106	100	94
103	88	109

Exercise 2.6

1. (a) 3,028 (b) 15,038 (c) 57,563
 (d) 9,845 (e) 6,036 (f) 19,645
 (g) 16,546 (h) 23,386

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Exercise 2.7

1. ₹ 1,219
2. 2,960 men
3. ₹ 450
4. 47,720 people
5. 4,702 pouches
6. ₹ 1,642
7. 7,59,160 bulbs

Logical & Critical Thinking–NEP 2020

Individual response

Higher Order Cognitive Skills (HOCS)

- (a) 3,613 (b) 12,128 (c) 6,298
(d) 2,752 (e) 6,001 (f) 52,270
- (a) 400 (b) 108 (c) 800
(d) 731
- 1376 (b). 3254
$$\begin{array}{r} + 498\boxed{1} \\ \hline 6357 \end{array}$$
$$\begin{array}{r} + \boxed{2207} \\ \hline 546\boxed{1} \end{array}$$
- ₹ 650
- ₹ 4571 6. ₹ 91.25

Chapter-3

Exercise 3.1

- (a) 1,215 (b) 4,242 (c) 4,104
(d) 972 (e) 2,280 (f) 18,824
(g) 13,636 (h) 28,371
- (a) 4,012 (b) 11,983 (c) 23,865
- (a) 3,468 (b) 1,5921 (c) 26,352
(d) 39,130

Exercise 3.2

- (a) 40 (b) 56 (c) 64
(d) 72
- (a) 96 (b) 112 (c) 80
(d) 144
- (a) 133 (b) 145 (c) 234

- (d) 392 (e) 312 (f) 276
(g) 343 (h) 354

Exercise 3.3

1. (a) 360 (b) 1,500 (c) 1,600
 (d) 1,600 (e) 3,500 (f) 4,500
2. (a) 3,000 (b) 5,600 (c) 1800
 (d) 4,200 (e) 1,500 (f) 1,800
3. (a) 2,70,000 (b) 1,20,000 (c) 60,000
 (d) 1,20,000 (e) 2,70,000 (f) 3,50,000
4. (a) 2,70,000 (b) 140,00 (c) 90,000
 (d) 60,000 (e) 2,70,000 (f) 3,20,000

Exercise 3.4

1. (a) 23,655 (b) 19,304 (c) 16,504
 (d) 40,410 (e) 11,184 (f) 49,588
 (g) 43,200 (h) 28,305
2. (a) 6,492 (b) 36,440 (c) 40,068
 (d) 275 (e) 416 (f) 546
 (g) 90 (h) 414

Exercise 3.5

1. (a) 804 (b) 5032 (c) 21654
 (d) 8316 (e) 19952 (f) 42771
 (g) 45750 (h) 20,682
2. (a) 60 (b) 190 (c) 36700
 (d) 2300 (e) 993000 (f) 930000
 (g) 7260000 (h) 700000
3. (a) 2190 (b) 4920 (c) 18760

- (d) 42150 (e) 53,900 (f) 30,720
 (g) 2,30,760 (h) 98,760

Logical & Critical Thinking–NEP 2020

	5	1	6	
		3	2	
	1	0	3	2
1	5	4	8	
1	6	5	1	2

	8	3	9	
		5	7	
	5	8	7	3
4	1	9	5	
4	7	8	2	3

	9	6	
	2	8	
	7	6	8
1	9	2	
2	6	8	8

Exercise 3.6

- (a) 2,20,376 (b) 1,46,160 (c) 2,20,025
 (d) 1,64,160 (e) 1,36,240 (f) 1,91,646
 (g) 1,85,350 (h) 4,41,252 (i) 3,13,848
 (j) 4,98,068 (k) 13,14,672
 (l) 10,70,842 (m) 3,06,344
 (n) 5,59,450 (o) 16,08,306
 (p) 14,75,190
- (a) 1,60,800 (b) 1,12,800 (c) 2,26,500
 (d) 1,87,600 (e) 1,90,200 (f) 8,07,000
 (g) 8,19,200 (h) 19,53,000 (i) 16,75,200
 (j) 9,94,500

Exercise 3.7

- (a) 59,994; 5,99,994; 5,99,9994
 (b) 4,004; 5,005; 6,006
 (c) 17,776; 17,7776
 (d) 27,775; 2,77,775

(e) 555; 666

(f) 4,99,849

2. (a) 30 (b) 48

Exercise 3.8

1. 3,948 kg
2. ₹ 19,000
3. 52,325 flowers
4. 27,300 cards
5. 87,235 passengers
6. 6,300 houses
7. 5,99,952 kg. mangoes
8. ₹ 60,171; ₹ 7,719
9. 44,640 minutes
10. 1,560 hours.

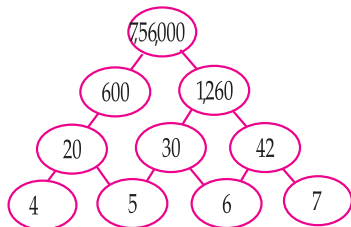
Exercise 3.9

1. ₹ 2.50
2. ₹ 244 80 forms
3. ₹ 2,26,333
4. 977 clear days
5. ₹ 117384

Higher Order Cognitive Skills (HOCS)

1. (a) 4,225 (b) 18,825 (c) 42,483
2. (a) 1,20,000 (b) 4,80,000 (c) 2,40,000
(d) 3,50,000 (e) 1,00,000 (f) 3,60,000
3. (a) 24,276 (b) 49,086 (c) 3,25,680

- (d) 46,221 (e) 8,90,000 (f) 1,58,816
 (g) 1,84,371 (h) 1,34,820
4. (a) 47,232 (b) 3,10,650 (c) 1,35,252
 (d) 2,87,550 (e) 12,10,788 (f) 7,14,150
 (g) 8,36,400 (h) 28,87,398
5. (a) 4,44,444; 5,55,555; 6,66,666



6. (a) 6-digit (b) 4 (c) 8,99,991
7. (a) ₹ 699.04 (b) ₹ 582.01 (c) ₹ 1,925
 (d) ₹ 11303.62
8. (a) 342005 screws
 (b) 1,24,644 bats
 (c) 86,940 books
 (d) 1,47,149 buttons
 (e) 1,182 mangoes
 (f) 408 samosa

Chapter-4

Exercise 4.1

1. (a) $Q = 811$; $R = 1$
 (b) $Q = 702$; $R = 2$
 (c) $Q = 868$; $R = 0$
 (d) $Q = 1079$; $R = 8$

- (e) $Q = 1074; R = 0$
- (f) $Q = 842; R = 2$
- (g) $Q = 2367; R = 2$
- (h) $Q = 1384; R = 4$
- (i) $Q = 787; R = 3$
- (j) $Q = 834; R = 1$
- (k) $Q = 535; R = 6$
- (l) $Q = 531; R = 0$

Exercise 4.2

1. (b) 8 (c) 3 (d) 9
 (e) 7 (f) 9
2. (a) 33 (b) 7 (c) 4
 (d) 3 (e) 21 (f) 11
 (g) 12 (h) 8 (i) 13
 (G) 9 (k) 12 (l) 6
3. (a) $Q = 20; R = 6$
 (b) $Q = 6; R = 47$
 (c) $Q = 11; R = 8$
 (d) $Q = 11; R = 48$
 (e) $Q = 11; R = 67$
 (f) $Q = 11; R = 50$

Exercise 4.3

1. (a) $9 \div 20; 4$ (b) $80 \div 10; 8$
 (c) $60 \div 30; 2$ (d) $100 \div 30; 3$
 (e) $300 \div 50; 6$ (f) $400 \div 10; 40$
 (g) $300 \div 20; 15$ (h) $600 \div 40; 15$
 (i) $400 \div 50; 8$ (j) $600 \div 50; 12$

Exercise 4.4

1. (a) $Q = 6 ; R = 6$
(b) $Q = 2 ; R = 8$
(c) $Q = 4 ; R = 8$
(d) $Q = 6 ; R = 5$
(e) $Q = 2 ; R = 14$
(f) $Q = 8 ; R = 3$
(g) $Q = 5 ; R = 8$
(h) $Q = 2 ; R = 8$
(i) $Q = 3 ; R = 0$
(j) $Q = 2 ; R = 25$
(k) $Q = 2 ; R = 3$
(l) $Q = 1 ; R = 11$
2. (a) $Q = 8 ; R = 11$
(b) $Q = 11 ; R = 5$
(c) $Q = 16 ; R = 10$
(d) $Q = 13 ; R = 10$
(e) $Q = 8 ; R = 45$
(f) $Q = 11 ; R = 6$
(g) $Q = 15 ; R = 1$
(h) $Q = 12 ; R = 52$
(i) $Q = 7 ; R = 89$
(j) $Q = 17 ; R = 10$
(k) $Q = 10 ; R = 7$
(l) $Q = 9 ; R = 3$

Exercise 4.5

1. (a) ₹ 8.75 (b) ₹ 37.38 (c) ₹ 35
(d) ₹ 56 (e) ₹ 16.36 (f) ₹ 25.05
(g) ₹ 35.26 (h) ₹ 56.15

2. (a) ₹ 16.50 (b) ₹ 33.94 (c) ₹ 21.32
(d) ₹ 33.12

Exercise 4.6

1. (a) 3, 30, 300, 3000
(b) 2, 20, 200, 2000
2. (a) 500, 50, 5 (b) 1000, 100, 10, 1
3. (a) 4 (b) 6, 7 (c) 11, 9
(d) 7, 24, 27 (e) 8, 21, 18 (f) 9, 16, 9

Exercise 4.7

1. ₹ 832
2. 22 packets, 10 sweets left
3. 444 bags, 4 bags left
4. 186 note-books
5. ₹ 250
6. ₹ 98
7. ₹ 60
8. 12
9. 111 rows, 5 chairs left
10. 20 rooms, 20 children left
11. 39 buses
12. ₹ 999

Exercise 4.8

1. (a) (ii), 35 km (b) (i) 32 people
(c) (iii) 2357 (d) (ii) ₹ 2605

Exercise 4.9

1. (a) 13 (b) 32 (c) 22
(d) 10796 (e) 670 (f) 16288
(g) 80 (h) 15 (i) 853
(j) 207
2. 264 3. 59 4. ₹ 5160
5. ₹ 80 6. 4.

Higher Order Cognitive Skills (HOCS)

1. (a) 7 (b) 32
2. (a) $70 \div 10 ; 7$ (b) $80 \div 20 ; 4$
3. (a) $Q = 433 ; R = 5$
(b) $Q = 800 ; R = 0$
(c) $Q = 32 ; R = 0$
(d) $Q = 32 ; R = 0$
(e) $Q = 220 ; R = 0$
(f) $Q = 7 ; R = 35$
4. (a) $Q = 6 ; R = 6$
(b) $Q = 8 ; R = 30$
(c) $Q = 2 ; R = 25$
(d) $Q = 3 ; R = 12$
(e) $Q = 8 ; R = 7$
(f) $Q = 12 ; R = 3$
(g) $Q = 9 ; R = 37$
(h) $Q = 6 ; R = 26$
5. (a) 26 full page, 1 stamp left
(b) 114 (c) 284 (d) 18
(e) ₹ 15.50

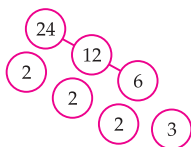
Chapter-5

Exercise 5.1

- 1, 3, 5, 15
 - 1, 2, 4, 5, 10, 20
 - 1, 2, 3, 4, 6, 8, 12, 24
 - 1, 2, 3, 4, 6, 9, 12, 18, 36
 - 1, 41
 - 1, 5, 11, 55
 - 1, 3, 9, 27, 81
 - 1, 3, 11, 33
 - 1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96
 - 1, 2, 4, 5, 10, 20, 25, 50, 100
- 1, 2, 4, 8, 16
 - 1, 23
 - 1, 3, 13, 39
 - 1, 3, 5, 9, 15, 45
 - 1, 2, 3, 6, 9, 27, 54
 - 1, 2, 3, 6, 11, 22, 33, 66
 - 1, 2, 3, 4, 6, 8, 9, 12, 24, 36, 72
 - 1, 7, 49
 - 1, 2, 3, 4, 6, 7, 12, 14, 21, 42, 84
 - 1, 2, 7, 14, 49, 98
- 96; 1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96
 - 44; 1, 2, 4, 11, 22, 44
 - 156; 1, 2, 3, 4, 6, 12, 39, 52, 78, 156
 - 154; 1, 2, 7, 11, 14, 22, 77, 154
- | | | |
|----------|-----------|----------|
| (a) True | (b) False | (c) True |
| (d) True | (e) True | (f) True |

Exercise 5.2

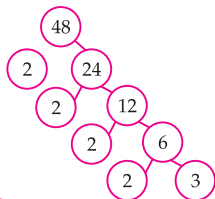
1. (a)



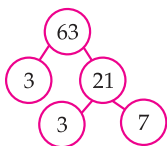
(b)



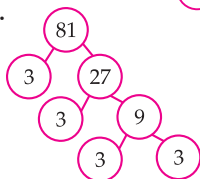
(c)



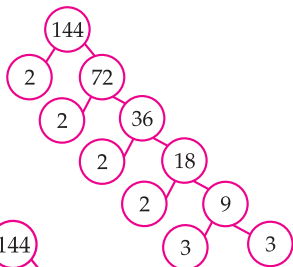
d.



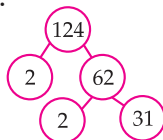
d.



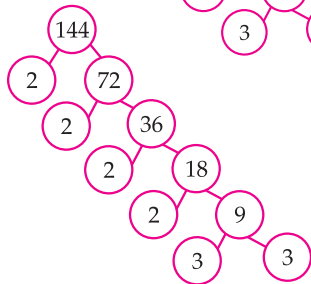
e.



g.



h.



2. (a) 1, 3

(b) 1

(c) 1, 7

(d) 1

(e) 1, 3

(f) 1, 7

(g) 1, 5

(h) 1, 2, 4

(i) 1, 2, 3, 6

(j) 1, 2

(k) 1, 7

(l) 1, 2, 4, 8

Exercise 5.3

1. 1, 2, 3, 4, 12, 16, 24, 48
2. 1, 2, 3, 6, 7, 14, 21, 42
3. 1, 2, 19, 38
4. 1, 2, 3, 4, 6, 8, 12, 24
5. 1, 2, 3, 6, 9, 18, 27, 54

Exercise 5.4

1. (a) 12, 20, 28
(b) 15, 20
(c) 27, 36, 54, 63
(d) 21, 28, 42
(e) 36, 48, 72, 84
(f) 18, 24, 36
2. (a) 12, 15, 18 (b) 40, 50, 60 (c) 64, 80, 96
(d) 60, 75, 90 (e) 36, 45, 54
(f) 200, 250, 300
3. (a) 11, 22, 33, 44, 55
(b) 14, 28, 42, 56, 70
(c) 16, 32, 48, 64, 80
(d) 9, 18, 27, 36, 45
(e) 7, 14, 21, 28, 35
(f) 15, 30, 45, 60, 75
(g) 18, 36, 54, 72, 90
(h) 20, 40, 60, 80, 100
4. (a), (b), (d)
5. (a) False (b) True (c) False
(d) False (e) True

Exercise 5.5

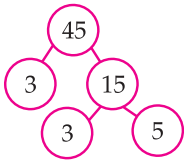
- 12, 24, 36
- 195, 105, 15, 120, 30, 135, 45, 165, 60, 150, 75, 180, 90
- (a) 8, 16, 24
- (a) 20, 40, 60 (b) 6, 12, 18 (c) 6, 12, 18
(d) 8, 16, 24 (e) 21, 42, 63 (f) 30, 60, 90
(g) 12, 24, 36 (h) 24, 48, 72
- (a) Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33 Multiples of 7: 7, 14, 21, 28, 35
Common multiples: 21
(b) Multiples of 4 : 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48 Multiples of 12 : 12, 24, 36, 48
Common multiples : 12, 24, 36, 48
(c) Multiples of 2 : 2, 4, 6, 8, 10, 12, 14, 16, 18
Multiples of 6 : 6, 12, 18
Common multiples : 6, 12, 18
(d) Multiples of 3 : 3, 6, 9, 12, 15, 18, 21, 24, 27, 30
Multiples of 5 : 5, 10, 15, 20, 25, 30, 35, 40
Common multiples : 15, 30

Higher Order Cognitive Skills (HOCS)

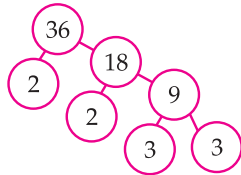
- (a) 1, 2, 4, 5, 10, 20
(b) 1, 2, 5, 10
(c) 1, 2, 3, 6, 9, 18
(d) 1, 2, 3, 4, 6, 8, 12, 24
(e) 1, 2, 4, 7, 14, 28
- (a) 1, 2, 4, 5, 10, 20, 25, 50, 100
(b) 1, 2, 3, 4, 6, 9, 12, 18, 36

- (c) 1, 3, 5, 9, 15, 45
 (d) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
 (e) 1, 2, 3, 6, 13, 26, 39, 78

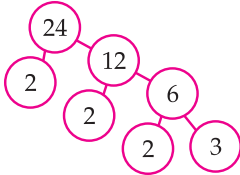
3. (a)



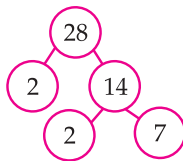
(b)



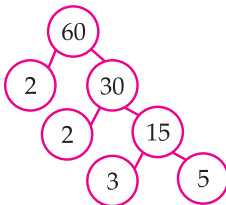
(c)



(d)



(e)



4. (a) 16, 20, 24 (b) 24, 30, 36 (c) 32, 40, 48
 (d) 80, 100, 120

5. (a) 3, 6, 9, 12, 15
 (b) 5, 10, 15, 20, 25
 (c) 15, 30, 45, 60, 75
 (d) 25, 50, 75, 100, 125

6. 10, 20

7. (a) 10, 20, 30 (b) 21, 42, 63
 (c) 8, 16, 24 (d) 30, 60, 90

8. (a) Multiples of 2: 2, 4, 6, 8, 10, 12, 14, 16,

18, 20

Multiples of 5 : 10, 20

Common multiples: 10, 20

(b) Multiples of 2: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

Multiples of 3 : 6, 12, 18, 24





Common multiples : 6, 12, 18, 24

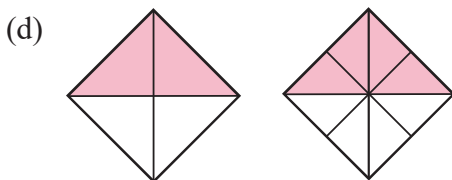
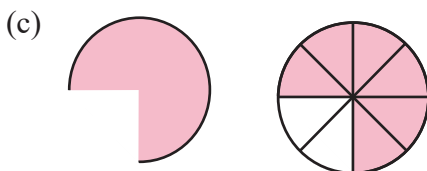
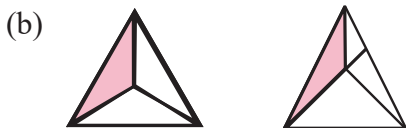
Chapter-6

Exercise 6.1

- (a) two (b) four (c) three
(d) two
- (a) cauliflowers
(b) ₹ 20 (c) ₹ 20 (d) ₹ 30
(e) ₹ 40 (f) ₹ 5 (g) ₹ 15
- (a) $\frac{1}{4}$ (b) $\frac{1}{4}$ (c) $\frac{3}{4}$
(d) $\frac{1}{2}$ (e) $\frac{1}{4}$ (f) $\frac{1}{2}$

Exercise 6.2

- (A) 
(b) 
(c) 
(d) 
- (a) 2, (b) 4, (c) 2,
(d) 6, (e) 4, (f) 6
- (a) 3, (b) 3, (c) 4



5. (a) 10 (b) 1 (c) 15
 (d) 3 (e) 35 (f) 4
 (g) 7 (h) 10 (i) 21

Exercise 6.3

1. (a) like (b) like (c) unlike
 (d) unlike (e) unlike (f) like
2. (a) < (b) > (c) < (d) >
3. (a) < (b) > (c) < (d) > (e) < (f) > (g) > (h) >
 (i) < (j) < (k) > (l) >

4. (a) $\frac{1}{7}, \frac{2}{7}, \frac{3}{7}, \frac{4}{7}, \frac{5}{7}, \frac{6}{7}$
 (b) $\frac{2}{11}, \frac{3}{11}, \frac{4}{11}, \frac{5}{11}, \frac{9}{11}, \frac{10}{11}$
 (c) $\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}$
 (d) $\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \frac{6}{8}, \frac{7}{8}$
 (e) $\frac{8}{15}, \frac{9}{15}, \frac{10}{15}, \frac{11}{15}, \frac{12}{15}, \frac{13}{15}$
 (f) $\frac{1}{6}, \frac{2}{6}, \frac{3}{6}, \frac{4}{6}, \frac{5}{6}$
5. (a) $\frac{8}{9}, \frac{6}{9}, \frac{5}{9}, \frac{4}{9}, \frac{3}{9}, \frac{1}{9}$
 (b) $\frac{12}{13}, \frac{11}{13}, \frac{9}{13}, \frac{8}{13}, \frac{7}{13}, \frac{5}{13}$
 (c) $\frac{19}{19}, \frac{17}{19}, \frac{16}{19}, \frac{15}{19}, \frac{13}{19}, \frac{9}{19}$
 (d) $\frac{6}{7}, \frac{5}{7}, \frac{4}{7}, \frac{3}{7}, \frac{2}{7}, \frac{1}{7}$
 (e) $\frac{9}{10}, \frac{8}{10}, \frac{7}{10}, \frac{4}{10}, \frac{2}{10}, \frac{1}{10}$
 (f) $\frac{17}{20}, \frac{16}{20}, \frac{15}{20}, \frac{9}{20}, \frac{5}{20}$

Exercise 6.4

1. Do it yourself.

2. (a) $\frac{2}{2} = 1$ (b) $\frac{6}{4}$ (c) $\frac{5}{4}$
 (d) $\frac{2}{3}$ (e) $\frac{9}{8}$

3. (a) $\frac{5}{6}$ (b) $\frac{4}{8}$ (c) $\frac{8}{3}$
 (d) $\frac{5}{11}$ (e) $\frac{8}{25}$ (f) $\frac{13}{23}$
 (g) $\frac{5}{9}$ (h) $\frac{7}{9}$ (i) $\frac{9}{16}$
 (j) $\frac{2}{2}$ (k) $\frac{17}{15}$ (l) $\frac{9}{9}$
4. (b) $\frac{4}{10}$ (c) $\frac{6}{10}$ (d) $\frac{3}{10}$
5. (a) $\frac{2}{9}$ (b) $\frac{3}{5}$ (c) $\frac{2}{11}$
 (d) $\frac{3}{9}$ (e) $\frac{10}{13}$ (f) $\frac{1}{7}$
 (g) $\frac{2}{11}$ (h) $\frac{3}{7}$ (i) $\frac{4}{10}$
 (j) $\frac{3}{9}$ (k) $\frac{1}{8}$ (l) $\frac{2}{12}$

Exercise 6.5

1. $\frac{1}{3}, \frac{1}{5}, \frac{1}{7}, \frac{1}{11}, \frac{1}{17}$
 2. Proper fractions $\frac{3}{7}, \frac{4}{9}, \frac{6}{9}, \frac{4}{11}, \frac{1}{3}, \frac{2}{6}, \frac{4}{10}, \frac{1}{5}, \frac{5}{7}, \frac{2}{7},$

$$\frac{2}{5}, \frac{5}{11}, \frac{5}{8}, \frac{9}{13}, \frac{11}{13}, \frac{6}{15}, \frac{7}{10}, \frac{3}{10}, \frac{2}{3}$$

Mixed fractions

$$1\frac{1}{4}, 1\frac{4}{7}, 5\frac{2}{3}, 1\frac{3}{4}, 1\frac{1}{3}, 1\frac{2}{3}, 4\frac{3}{10}, 2\frac{1}{4}, 8\frac{1}{3}$$

Improper fraction

$$\frac{5}{2}, \frac{4}{3}, \frac{7}{5}, \frac{18}{5}, \frac{16}{15}, \frac{14}{9}, \frac{23}{16}, \frac{11}{10}, \frac{4}{3}, \frac{12}{7}, \frac{16}{13}, \frac{12}{5}$$

Exercise 6.6

1. (a) $1\frac{1}{2}$ (b) $1\frac{3}{4}$ (c) $1\frac{1}{4}$

(d) $1\frac{1}{2}$

2 Mixed numbers: $1\frac{1}{2}, 2\frac{1}{4}, 2\frac{1}{2}, 2\frac{2}{3}, 1\frac{1}{3}$

Improper fractions $\frac{3}{2}, \frac{9}{4}, \frac{5}{2}, \frac{8}{3}, \frac{4}{3}$

3. (a) $5\frac{1}{5}$ (b) $4\frac{2}{3}$ (c) $2\frac{1}{2}$

(d) $2\frac{3}{6}$ (e) $2\frac{1}{3}$ (f) $3\frac{1}{2}$

(g) $5\frac{5}{6}$ (h) $8\frac{2}{5}$

4. (a) $\frac{30}{8}$ (b) $\frac{11}{2}$ (c) $\frac{35}{8}$

(d) $\frac{41}{7}$ (e) $\frac{10}{6}$ (f) $\frac{48}{9}$

(g) $\frac{10}{2}$ (h) $\frac{71}{9}$

Exercise 6.7

1. (a) 18 (b) 10 (c) 28

(d) 6 (e) 24 (f) 14

(g) 18 (h) 24 (i) 12

2. (a) 12 hour
 (b) 400 gram
 (c) 10 days
 (d) 50 minutes
 (e) 219 days
 (f) 1 day
3. (a) 300 seats (b) 21 girls (c) 12 votes
 (d) 24 toffees (e) 35 students

Exercise 6.8

1. $\frac{16}{4}m$
2. $\frac{1}{5}$
3. $\frac{16}{2}m$
4. $\frac{3}{4}$
5. $\frac{4}{5}$ metres.

Higher Order Cognitive Skills (HOCS)

1. (a) 2 (b) 6
2. (a) $<$ (b) $>$ (c) $>$ (d) $<$
3. (a) $\frac{1}{7}, \frac{2}{7}, \frac{3}{7}, \frac{4}{7}, \frac{6}{7}$ (b) $\frac{5}{11}, \frac{7}{11}, \frac{8}{11}, \frac{9}{11}, \frac{10}{11}$
4. (a) $\frac{13}{14}, \frac{9}{14}, \frac{8}{14}, \frac{7}{14}, \frac{1}{14}$ (b) $\frac{8}{9}, \frac{5}{9}, \frac{4}{9}, \frac{3}{9}, \frac{2}{9}$
5. (a) $\frac{8}{7}$ (b) $\frac{12}{9}$ (c) $\frac{4}{11}$
 (d) $\frac{2}{7}$
6. $\frac{1}{3}, \frac{4}{5}, \frac{6}{7}, \frac{6}{11}, \frac{4}{9}$

7. (a) $2\frac{3}{4}$ (b) $4\frac{1}{3}$ (c) $4\frac{3}{6}$
(d) $8\frac{2}{5}$
8. (a) $\frac{31}{7}$ (b) $\frac{9}{7}$ (c) $\frac{31}{9}$
(d) $\frac{14}{5}$
9. (a) $2\frac{1}{2}$ kg (b) $\frac{4}{7}$ km. by bicycle

Modal Test Paper

1. (a) Eighty-nine thousand four hundred fifty-six.
(b) Thirty four thousand three hundred seventy-two.
(c) Four lack sixty-seven thousand thirty.
(d) Three lack seventy thousand three hundred seventy-one
2. (a) 5,693; 5,396; 4,639; 3,496
3. (a) 96,777 (b) 89,734
4. (a) 1,104 (b) 3,429 (c) 3,058
5. (a) 74 (b) 85 (c) 86 (d) 740
6. (a) 1,215 (b) 4,242 (c) 4,104 (d) 972
7. (a) 6,492 (b) 36,440 (c) 40,068 (d) 275
8. Do it yourself.
9. (a) 1,3,5,15
(b) 1,2,4,5,10,20
(c) 1,2,3,4,6,8,12,24

(d) 1,2,3,4,6,9,12,18,36

10. (a) like

(b) like

(c) unlike

Science

1 The Plant World

LEAD QUESTIONS

Which of these are called the kitchen of the plant?

Ans: Leaves (✓)

Who are producers?

Ans: Plants (✓)

WORK CORNER

Fill up the blanks.

1. **Stomata** are tiny pores on the underside of a leaf.
2. The central vein on a leaf is called the **Main Vein or the Midrib**.
3. Leaves appear green due to the presence of **Chlorophyll**.
4. The flat surface of a leaf is called the **Leaf Blade or Lamina**.
5. The gas released during photosynthesis is carbon dioxide.
6. **Producers** absorb water and send it to the leaves.

HOCS

Non green plants obtain their food by decomposing dead organic matter or get their nutrition by attaching themselves with other plants.

EXERCISES

A. Tick (✓) the correct option:

1. The flat part of a leaf is called the
(c) Lamina (✓)
2. The gas given out by plants during photosynthesis is
(a) Carbon dioxide (✓)
3. In the presence of sunlight, green leaves change carbon dioxide and water into
(c) Glucose (✓)

B. Name the following:

1. The lines on the sides of a leaf : **Veins**
2. The substance that gives a leaf its green colour : **Chlorophyll**
3. The plant uses this as its food : **Glucose**
4. Food gets stored in the plant in this form : **Starch**
5. Gas that animals breathe out : **Carbon dioxide**

C. Write 'T' for a true statement and 'F' for a false one. Correct the false statements:

1. Leaves have a green substance called glucose. : [F]
2. Air enters leaves through stomata. : [T]
3. Plants take in oxygen and give out carbon dioxide during respiration. : [T]
4. Iodine solution gives brown colour in the presence of starch. : [F]
5. Animals depend on plants for carbon dioxide. : [F]

D. Very short answer type questions:

1. What do you mean by the term ‘photosynthesis’?

‘Photo’ means light and ‘Synthesis’ means putting together.

Photosynthesis is a process in which green plants make food in the presence of air, water and sunlight.

2. In what form is extra food stored in plants?

Extra food is stored in plants in the form of Starch.

3. What will you find on the underside of a leaf if you put it under a microscope?

We will find Stomata (many tiny openings or pores) on the underside of a leaf if we put it under a microscope.

4. How do stomata help a plant?

Stomata helps a plant to breathe in and breathe out. Exchange of gases takes place through stomata. It expels extra water out of plant.

5. What do green leaves need in order to make food?

Green leaves need chlorophyll, sunlight, water and carbon dioxide in order to make food.

6. What is the role of veins in the leaf?

Veins present on leaves carry food and minerals to the leaves coming from roots and carry food from leaves to other parts of plant.

E. Long answer type questions:

1. Name the various parts of a leaf and mention their functions.

The structure of a leaf is as under:

- a) Lamina : The lamina's main function is to absorb sunlights, carbon dioxide and make food. It also expels extra water. .
- b) Mid-Rib: It is a thick line that runs across middle of leaf. It is the main vein to carry food and distributes water to leaf. It also gives mechanical support to leaf.
- c) Veins : Veins bring water and minerals to leaf from roots and carry food to different parts of leaf. It provides rigidity to the leaf.
- d) Stomata : It causes exchange of Carbon Dioxide and Oxygen takes. It regulates water flow out of the leaf.

2. Prove through an experiment that sunlight is necessary for photosynthesis.

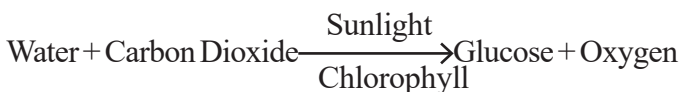
Experiment showing sunlight is necessary for photosynthesis is as follows:

- a) Take a plant and keep it in a dark room for 3 days.
- b) Water the plant regularly.
- c) After 3 days, pluck a leaf of plant.
- d) Wash it, boil it first in water and then in alcohol.
- e) Remove leaf from alcohol and wash it with cold water. Add a few drops of Iodine on the leaf.
- f) Colour of Iodine solution doesn't change

to blue-black. It shows there is no starch in leaf. In absence of light, no photosynthesis took place and leaf did not produce starch. This proves that sunlight is necessary for photosynthesis.

3. Describe the process of photosynthesis in plants.

‘Photo’ means light and ‘Synthesis’ means putting together. Photosynthesis is a process in which green plants make food in the presence of air, water and sunlight. Plants take in water and minerals from soil by roots. Chlorophyll in leaves trap light energy from Sun. In the presence of carbon dioxide, sunlight and water, food making process starts. Oxygen is released as by product and food is stored in the form of starch.



4. What is the role of plants in maintaining a balance in nature?

Plants maintain a balance in nature. Plants maintain the balance of carbon dioxide and oxygen in nature by absorbing carbon dioxide from air and releasing oxygen into the air. Carbon dioxide is a heat absorbing gas so, plants reduce heat of nature and keep the nature cool. All animals breath in oxygen which is released by plants into the air. The roots of plants hold the soil and save it from erosion by water and wind.

If there is sudden increase or decrease in number of plants on Earth, the balance in nature gets disturbed. If more and more plants are cut, we will not get enough oxygen to breathe in. So, it is our responsibility to protect and plant more plants in order to maintain the balance of oxygen and carbon dioxide in nature.

5. Explain how plants and animals depend on each other for food.

Plants and animals depend on each other as follows:

- a) To survive animals need food to eat and oxygen to breathe. Plants give food and oxygen to animals. Plants are the food providers for all.
- b) Animals breathe out carbon dioxide. Plants use this carbon dioxide to make their food. Thus plants and animals depend on each other in order to live.
- c) Plants need nutrients for their growth and development. Decomposers break down the dead plants and animals into nutrients that are required by plants. These nutrients dissolve in water, which is absorbed by plants.
- d) Animals help plants in reproduction. Honeybees, butterflies and other insects help in the transfer of pollens to female parts of flowers to make seeds for reproduction.
- e) Birds and animals help in distribution of

seeds to other areas which germinate and become new plant.

TASKS

Fill in the missing letters to name the parts of the plant. Then match the descriptions with the parts of the plant.

Ans:

LEAF : 3. It makes food for the plant.

FRUIT : 4. It contains seeds.

FLOWER : 5. It may grow into a fruit.

STEM : 2. It carries food to the different parts of the plant.

ROOT : 1. They take in water from the soil.

Project Idea

A. Do it yourself.

B. Do it yourself.

2. Adaptations in Plants

LEAD QUESTIONS

Trees bearing cones are called.....

Ans: Conifers (✓)

Which of these is a water plant?

Ans: Lotus (✓)

Which of these seeds has water which you drink to be healthy?

Ans: Coconut (✓)

WORK CORNER

Fill up the blanks.

Ans:

1. **Aquatic** plants have stomata only on the upper surface of the leaf.
2. Mangroves have roots growing above the water surface. Such roots are called **breathing roots**.
3. The seeds of trees growing in hilly regions are present inside the **cones**.
4. **Coconut** trees can survive and grow in salty water in coastal regions.
5. Photosynthesis is carried out by the **green stems** of the cactus plant.

WORK CORNER

Fill up the blanks.

Ans:

1. Aquatic plants can be **floating plants, fixed plants** and **underwater plants**.
2. **Floating plants such as duckweed lettuces and water hyacinth** float on the water surface.
3. The leaves of the aquatic plants are broad with **stomata on the upper surface**.
4. Pondweed and tapegrass are the examples of **underwater plants**.

EXERCISES

A. Tick (✓) the correct option:

Ans:

1. Plants in plains shed their leaves in
(d) autumn (✓)

2. A cactus plant makes food in it
(a) stem (✓)
3. Mangroves grow in.....
(c) marshy areas (✓)
4. The duckweed is a/an.....
(a) floating plant (✓)

B. Write 'T' for a true statement and 'F' for a false one:

Ans:

1. The leaves of the touch-me-not plant release poison when touched. : [F]
2. The plants that grow on land are called aquatic plants. : [F]
3. In cactus plants, flowers are modified into spines. : [F]
4. A coconut tree has a flexible trunk and large fronds which help it to bear strong winds.: [T]
5. Plants in hilly areas are cone-shaped. : [T]

C. Give two examples of each:

1. Floating plants - Duckweed Water Lettuce
2. Fixed plants - Lotus Water Lily
3. Underwater plants - Pondweed Tapegrass

D. Short answer type questions:

1. What is meant by adaptation?

A change that a living thing undergoes to become well-suited to its environment is called adaptation. Plants adapt themselves to the place they grow in. It helps them to survive.

2. Name various terrestrial plants. Describe one feature of each plant.

Plants that grow on land are called terrestrial plants. They too differ depending on type of climate and soil where they grow.

They are as follows:

Plants in Plains : Trees found in plains are called deciduous trees. Examples: Sheesham, Sal, Gulmohar, Pipal, Banyan.

Mountains : Trees are tall and straight. They are cone shaped. They bear cones instead of flowers. They are called coniferous trees or conifers. Examples: Pine, Spruce, Fir, Deodar, Cedar.

Wild Plants : Plants that do not need care to grow are called wild plants. They grow naturally for many years. They can be seen growing in forests. Example: Banyan Tree

Desert Plants : Deserts have very little rainfall. Examples: Cactus, Brittlebush, Date Palms, Palm.

Marshy Areas : Marshy areas are wet, humid with clayey soil and plenty of water. Examples: Mangroves, Kendelia, Cariops.

3. **What are aquatic plants? Give some examples.**

Aquatic Plants live in water. These plants are as follows:

Floating : Plants are light and spongy to float on water. They have air filled in them with a lot of empty spaces in entire body. Roots are not fixed to water-bed. Examples: Duckweed and Water Hyacinth.

Fixed : Some aquatic plants have roots fixed to waterbed. They are light and have hollow stems. Leaves are broad and waxy coated to prevent them from rotting. Unlike other leaves, leaves of fixed plants have stomata on upper side of

leaf to enable exchange of gases. Examples: Lotus and Water Lily.

Submerged : Plants grow under water surface. Roots are fixed to water-bed. They have narrow, ribbon-like leaves so that they offer least resistance to water currents. Stems are flexible and have air spaces. Examples: Tape Grass, Pondweed and Hydrilla.

4. **Why is it difficult for plants other than mangroves to grow in marshy areas?**

Marshy areas are wet, humid with clayey soil with plenty of water. Mangroves are found in these places. Plants have roots that grow out of soil and water to get enough air to breathe.

Roots absorb water and other nutrients essential for photosynthesis. It is, therefore, difficult for plants other than mangroves to grow in marshy areas.

5. **Name the plants which grow in mountains. Why are they coneshaped?**

Plants which grow in mountains are tall and straight. They are cone shaped to slide off snow from their branches. They bear cones instead of flowers. They are called Coniferous Trees or Conifers. Leaves are modified into spines

to survive cold weather conditions. They have a thick, woody and straight stem. Examples: Pine, Spruce, Fir, Deodar, Cedar.

E. Long answer type questions:

1. How do plants in hills adapt in order to live in cold conditions?

Mountain and hilly regions are generally cold and even receive snowfall. Trees are tall and straight. They are cone shaped to slide off snow from their branches. They bear cones instead of flowers. They are called coniferous trees or conifers. Leaves are modified into spines to survive cold weather conditions.

They have a thick, woody and straight stem. Examples: Pine, Spruce, Fir, Deodar, Cedar.

2. How does a cactus survive in deserts?

Deserts have very little rainfall. Plants have green, thick, fleshy stem to conduct photosynthesis and store water. Plants have spines instead of leaves to prevent loss of water. Some plants have very small leaves with a waxy coating. Roots spread wide and deep in search of water. Examples: Cactus, brittlebush, Date Palms, Palm.

3. What are the features of fixed plants that help them to live in water?

Some aquatic plants have roots fixed to water-bed. They are light and have hollow stems. Leaves are broad and waxy coated to prevent them from rotting. Unlike other leaves, leaves

of fixed plants have stomata on upper side of leaf to enable exchange of gases. Examples: Lotus and Water Lily.

4. Explain how a Venus flytrap traps an insect.

The Venus flytrap has leaves which are folded into two halves like flaps. There are hairs along the edges. When an insect sits on a leaf and touches its hair the leaf closes instantly to trap the insect.

5. Give some uses of the plants of the grass family.

Cereals like Maize, Wheat and Rice belong to grass family. They provide food to us and animals. Some specific uses of plants of grass family are as follows:

- a) Bamboo, a giant grass, is used for making brooms, baskets and mats, etc.
- b) Dried grasses are used as packing materials.
- c) They conserve soil as they hold soil with their roots and prevent soil erosion.
- d) Many grasses are used for making paper.

Activity based Learning—NEP 2020

Q. Look at the pictures. Identify them and write two adaptive features for each.

Top Left 1st Picture : Cactus :

- (i) It has green, thick, fleshy stem to conduct photosynthesis and store water. It has modified its leaves to spines to prevent loss of water.
- (ii) Some plants have very small leaves with a waxy coating. Roots spread wide and

deep in search of water. Examples: Cactus, brittlebush, Date Palms, Palm.

2nd Picture : Floating Plants:

- (i) Floating Plants are light and spongy to float on water. They have air filled in them with a lot of empty spaces in entire body.
- (ii) Roots are not fixed to water-bed. Examples: Duckweed and Water Hyacinth.

3rd Picture : Lotus:

- (i) Lotus has roots fixed to water-bed. It is light in weight and have hollow stems. Leaves are broad and waxy coated to prevent it from rotting.
- (ii) Leaves of lotus have stomata on upper side of leaf to enable exchange of gases.

4th Picture : Venus flytrap:

Its adaptive features are as follows:

- (i) Leaves modified to trapping structures helps it to get nutrition from insects.
- (ii) Sensitive hairs inside the flaps help it to close the flap.
- (iii) Spines at the lobes does not allow the insect to escape.
- (iv) Special enzymes help it to break down insects to required nutrients, (nitrogen and phosphorus). The above adaptive features help the plant to survive in nitrogen poor soil.

5th Picture : Coconut plants:

- (i) Coconut tree can survive in coastal areas.

It grows in sandy soil, salty water and receives heavy rainfall. Water helps in dispersal of coconut seeds over large distances.

- (ii) A coconut tree has a flexible trunk and large fronds (leaves with many divisions), which help it to bear strong winds.

6th Picture : Pine trees:

- (i) Pine trees are cone shaped to slide off snow from their branches. They bear cones instead of flowers. They are called coniferous trees or conifers.
- (ii) Leaves are modified into spines to survive cold weather conditions. They have a thick, woody and straight stem.

Project Idea

- A. Do it yourself.
B. Do it yourself.

3 Adaptations in Animals

LEAD QUESTIONS

Which of these animals live in the polar region?

Ans: polar bear (✓)

Which of these animals is an omnivore?

Ans: bear (✓)

WORK CORNER

Fill up the blanks.

Ans:

1. Animals living on land are called **terrestrial animals**.
2. A polar bear has a thick layer of fat under its skin called **blubber**.
3. A Reindeer has a thick coat of **fur** over its body which protects it from cold.
4. **Turtles** swim with the help of their **flippers** while **fish** have fins for swimming.
5. Camels can store fat in their **humps**.

WORK CORNER

State each of the following as true or false.

Ans:

1. Amphibians have short legs to move on land. :
[F]
2. Bats are mammals but they can also fly.: [T]
3. Birds migrate from a warmer place to a colder place. :
[F]
4. A monkey is an arboreal animal. : [T]
5. The animals that spend a lot of time on trees are called aerial animals. :
[F]

EXERCISES

A. Tick (✓) the correct option:

Ans:

1. Terrestrial animals live here.
(c) on land (✓)
2. This animal is called the ship of the desert.
(a) Camel (✓)
3. These help a fish to breathe in water.

- (d) gills (✓)
4. These help a deer to run away from its enemies.
(d) strong legs (✓)
5. One of the following is an endangered animal.
(c) Sea Turtle (✓)

B. Match the following:

Ans:

Column A

1. Crow
2. Tapeworm
3. Tiger
4. Hyena
5. Elephant

Column B

- (c) Omnivore
- (d) Parasite
- (a) Carnivore
- (e) Scavenger
- (b) Herbivore

C. Write 'H' for Herbivores, 'C' for Carnivores and 'O' for Omnivores.

1. deer and goats : [H]
2. eagles and kites : [C]
3. cows and buffaloes : [H]
4. man and bears : [O]
5. tigers and wolves : [C]
6. crows and Robins : [O]

D. Give reasons for the following:

1. A mountain goat has strong hooves.

A mountain goat has strong hooves which help it to walk and run easily on rocks.

2. Camels can live without food and water for a long time.

Camels can live without food and water for a long

time because they have very thick skins to prevent loss of water. They even do not sweat. They get energy from the fat stored in their humps. They can drink large amount of water and store them.

3. A fish can swim through water.

A fish can swim through water because they have fins to swim in water. They also have streamlined bodies to swim through water.

4. A frog can live on land and in water.

A frog can live on land and in water because it has long back legs which help it to move on land by jumping. They have webbed feet which help it to swim in water. They breath with lungs when on land and through their skin when in water.

5. Vultures can locate a dead animal.

Vultures can locate a dead animal because they have strong eye-sight ad sense of smell.

E. Short answer type questions:

1. What is the meaning of the term ‘hibernation’?

The process to go to warmer places for safety during winters is called hibernation or winter-sleep. Some animals like cockroach, mosquitoes can only be seen in summers. Frogs, Earthworms, Snakes, hybernate in burrows and holes and go for a long sleep in them. They come out when climate is favourable.

2. How have herbivores adapted themselves to eat their food?

Herbivores Animals eat only plants. They have broad and flat teeth to chew and grind plant parts.

3. Explain how have carnivores adapted themselves to eat their food?

Carnivores Animals eat flesh of other animals. They have sharp and pointed canines to tear off flesh. They have strong and broad teeth to chew and grind flesh.

4. How do deer and snails protect themselves?

Deer and snails protect themselves as follows:
Deer : Deer run very fast with the help of their strong legs to save themselves from lions and tigers.

Snails : Snails have hard shells on their body. They go into their shells when faced with danger.

5. How does a chameleon protect itself?

Chameleon changes its colour to mix with its surroundings. It is difficult to spot a chameleon because its body colour mixes with the background colour. It cannot be noticed easily by its enemy. This is called camouflage.

6. What is the meaning of the term 'migration'?

Migration is mass movement of birds or animals from a colder place to a warmer place or vice versa.

7. What are extinct and endangered animals?

Extinct Animals : The animals that could not

adapt to their changing environment disappear, die and become extinct like dinosaurs.

Dinosaurs could not adapt to their changing environment and it led to their extinction.

Endangered animals : Endangered animals can disappear forever if they are not protected in their habitats. To save these animals, Government of India has made laws to control their killing and selling of their body-parts.

8. What have been set up to protect the endangered animals?

National Parks and Wildlife Sanctuaries have been set up to protect the endangered animals.

F. Long answer type questions:

1. Explain the adaptive features of aquatic, aerial and arboreal animals.

The adaptive features of aquatic, aerial and arboreal animals are as follows:

The adaptive features of aquatic animals:

Aquatic animals live in water. Fish have fins to swim. Turtles and Whales have paddle-like flippers to move forward. Fish and Crabs have gills to breathe. Whales and dolphins have no gills to breath. They have lungs and regularly come over water surface to breathe.

Aerial animals : Aerial animals spend most of their time in air. They have wings to fly. Most birds and insects can fly. Birds have streamlined bodies to cut through air while flying. They have hollow bones making bodies lighter for

flight. They have feathers to assist in flying. Bats are the only mammals that can fly.

Arboreal animals: Arboreal animals live on trees. Monkey, squirrel and opossum are examples of arboreal animals. They have tails that help them hold tree branches while jumping from one tree to another tree.

2. Discuss the adaptations of animals living in polar regions which help them to survive in such climate.

Ans: Polar regions are covered with snow throughout the year making it extremely cold regions.

Polar bears, arctic foxes, seals and penguins are found here.

Polar Bear has a thick layer of fur over its body which protects it from cold. Each animal has thick layer of fat under its skin, called blubber to keep them warm.

3. Discuss the adaptations in various animals based on the type of food they eat.

Ans: The adaptations in animals based on type of food they eat are as follows:

Carnivores : Carnivores Animals eat flesh of other animals.

They have sharp and pointed canines to tear off flesh. They have strong and broad teeth to chew and grind flesh.

Herbivores: Herbivores Animals eat only plants. They have broad and flat teeth to chew and grind plant parts. Giraffes have long necks to chew off leaves from tall trees. Elephants have

strong long trunks to break plant parts to eat.

Omnivores: Omnivores are animals that can eat both plants and flesh of other animals. Crow, bear, human beings, etc. are examples of omnivores.

Parasites: Parasites are organisms that live and feed on other living animals called hosts from which they derive their nutrition. Mosquitoes, Hookworms, Lice and Bugs are parasites. They have sucking tubes in their mouth to suck blood from their hosts.

Scavengers : Scavengers are those animals that feed on dead animals or remains of leftover animals killed by other animals. Examples are: Vulture, Hyena. They eat left-over of dead animals after other carnivores have fed upon them.

4. Discuss the adaptations of various animals which help them to stay protected from their enemies.

Some animals develop adaptations to stay protected from their enemies as follows:

- a) Leaf insect : It merges with colour of leaf. Its body colour mixes with background colour and does not get noticed easily. This is called camouflage.
- b) Zebra : Stripes on its body help it to blend with its surroundings.
- c) Polar bear : Its white colour helps it to merge well with snow covered background.

- d) Chameleon : It has ability to change its body colour to match its surroundings.
- e) Elephant and hippopotamus have thick skins which protect them from hot climate.
- f) Tortoises and snails have hard shells on their bodies. They go into their shells when faced with danger.
- g) Porcupines and hedgehogs have sharp spines that save them from their enemies.
- h) Deer run very fast with the help of their strong legs to save themselves from lions and tigers and other predators.

Activity based Learning–NEP 2020

Solve the word puzzle.

Across (→)

- 2. The place where an animal lives. : **Habitat**
- 4. Animals that can fly. : **Aerial**
- 5. These help a turtle to swim. : **Flippers**
- 6. An elephant uses this to reach branches to eat leaves : **Trunk**

Down(↓)

- 1. Seasonal movements of birds for food and shelter. : **Migration**
- 3. These help a fish to breathe. : **Gills**

Project Idea

Do it yourself.

4 Creepy - Crawlies

LEAD QUESTIONS

An insect has

Ans: 6 legs (✓)

Which of these insects do you find hovering around in the house?

Ans: Houseflies (✓)

WORK CORNER

Look at this picture of a grasshopper. Discuss with your friends and answer the following questions.

Ans:

1. How many legs does a grasshopper have? :
6 legs
2. How many wings does it have? :
2 pairs
3. What colour is this grasshopper? :
Brown, Grey, Green

HOCS

Here are some of the differences between moths and butterflies

1. Butterflies have bright coloured wings while moths have earthen and dull coloured wings.
2. Butterflies are active during the day while moths are active during night.
3. While resting butterflies fold their wings vertically while moths spread their wings to their sides.

WORK CORNER

Fill up the blanks.

1. A **Dragonfly** can be seen flying around like a helicopter.
2. A **firefly** is also called a glow-worm.
3. Ladybirds feed on **aphids**.
4. **Centipedes** may have up to twenty or thirty pairs of legs.

HOCS

It is the infected female anopheles mosquito whose bite causes malaria. While it is infected female aedes mosquito whose bite causes dengue.

EXERCISES

A. Tick (✓) the correct option:

Ans:

1. An insect's body is divided into.....parts.
(c) three (✓)
2. It is used by an insect for feeling and tasting.....
(d) antenna (✓)
3. Which of these is an arachnid?
(b) spider (✓)
4. Which of these makes a chirrup sound?
(a) cricket (✓)
5. Which of these is a social insect?
(b) ant (✓)

B. Name the following:

Ans:

1. Two insects that live in nests. : **Ant, Bee**
2. Two creepy-crawlies that help the gardener. : **Ladybird, Butterfly**
3. Two insects that can be seen at night. : **Cricket, Cockroach**
4. An insects that flies like a helicopter. : **Dragonfly**
5. An eight-legged creature that spins a web. : **Spider**

C. Short answer type questions:

1. **What is the difference between a housefly and a spider?**

The difference between housefly and spider is as under:

- (i) Housefly have three main body parts: head, thorax and abdomen. They have two compound eyes and a pair of wings. They have six legs and antennae.
Spiders have two main body parts: the head and thorax combined and an abdomen. They have eight legs and lack wings and antennae
- (ii) Housefly are scavengers and they feed upon decaying organic matter.
Spiders are carnivorous and feed on insects.
- (iii) Housefly reproduces through the stages of metamorphosis.
Spiders reproduce sexually. Their young

ones hatch out of eggs and are very much like them,

2. What are fireflies? How can they light up at night?

Ans: Fireflies are also called ‘glow worms’, but they are not worms. Instead they are beetles. They are black or brown in colour and can light up at night because of chemical reactions in their stomachs that take place with the help of oxygen.

3. What is a centipede? What does it eat?

Ans: Tiny brown long creatures with many legs are called Centipedes. They can have up to 20 or 30 pairs of legs. They eat insects and other creepy-crawlies.

4. What is a worm’s body divided into?

Ans: A worm has a flat head and a long, soft body divided into many segments. Each segment usually has a pair of legs that help the worm to walk or swim.

D. Long answer type questions:

1. What are social insects? Write two lines for each of them.

Social insects live in colonies. They usually have a queen who is the most important being in the colony. The queen is the only one that lays eggs and that makes her very important.

The most common social insects are bees, wasps and ants.

Bees : Honeybees make honey and build hives. Nearly fifty to eighty thousand bees live together. Only one 'Queen Bee' lays eggs.

Wasps : Wasps are yellow in colour. They eat wood and make paper-like nests using their saliva mixed in wood paste. They lay eggs in these nests. Adult wasps feed on nectar of flowers.

Ants : Ants are different from flying insects like bees, yet they behave in a similar way. Ants work very hard to store food for winter and to feed larvae in their nests.

2. Which creepy-crawlies suck blood?

Ans: Mosquitoes, leeches and bedbugs suck blood to survive. Small creatures like lice and Ticks also suck blood of dog to survive.

3. What can be done to keep insects away?

Ans: (i) To keep insects away from us and our pets, we should make sure that we bathe ourselves and our pets regularly. Flea powders and Tick powders help to keep fleas and ticks away from dogs.

(ii) Keep living spaces such as kitchen and dining areas clean and free of food particles which might attract insects.

(iii) Remove standing water sources by removing empty containers, clear clogged gutters and fix leaky faucets.

(iv) Seal all entry points such as gaps, cracks door openings and window opening to restrict their entry.

- (v) Store food in airtight containers to discourage insects.
- (vi) Keep your garbage bins tightly sealed and dispose trash regularly.
- (vii) Use natural or chemical repellents.

4. **How does a snail protect itself?**

Here are some of the ways by which the snails protect themselves:

- (i) Snail curls up into its hard shell on its back to protect itself. The hard shell is also its home. The shell protects itself from enemies.
- (ii) Snail produces a slimy mucus that helps it to move and it makes it difficult for its predators to grip the snail.
- (iii) Some snails have colour patterns on their shells that help them blend with their surroundings.
- (iv) Bright colour of some snails acts as a warning to its predators.

5. **What does a snail eat and how does it slide?**

Ans: Food of snails: Snails are herbivorous and feed on plant materials such as leaves, stems, flowers, fruits and algae. They feed with the help of a feeding organ called radula.

Movement of snails : Snails move by sliding along a trail of mucus that they release. Their muscular foot helps them slide over surfaces. The mucus reduces friction. The foot contracts and expands that propels the snail forward. The mucus also shows it the way.

Activity based Learning – NEP 2020

A. Look at the pictures given below and write two lines for each.

Ans: **Top left- Ants** are different from flying insects like bees, yet they behave in a similar way. Ants work very hard to store food for winter and to feed larvae in their nests.

Top right- Snail : Snail curls up into its hard shell on its back to protect itself. The hard shell is also its home. The shell protects it from enemies. Snail enjoys eating plants, fungi and algae. It slides on its slimy muscular foot.

Bees : Honeybees make honey and build hives. Nearly fifty to eighty thousand bees live together. Only one ‘Queen Bee’ lays eggs.

Spider : Spider is neither an insect nor a worm. It belongs to a different class of animals called ‘Arachnids’. Its body has 2 parts and it has 8 legs.

B. What should we do to protect ourselves from diseases spread by flies? Here are a few sentences. Read and mark (✓) or (X).

Ans:

1. We should eat food from vendors on the road. : (X)
2. We should cover our food with lids or a wire net. : (✓)
3. We should use wire meshing in our windows at home. : (✓)
4. It is safe to eat food exposed to flies at home

- because inside the house they are clean. : (X)
5. If a fly falls in a glass of milk, you should just remove it and drink the milk. : (X)

Project Idea

Do it yourself.

TEST YOURSELF

A. Fill up the boxes to show the process of photosynthesis.

- Ans: 1. (Top left) Sun - Light Energy
 2. (Left middle) Carbon Dioxide
 3. (Bottom left) Oxygen
 4. (Top right) Glucose

B. Complete the following table. Ans: Plains Marshy Areas Hilly Areas Deserts

	Plains	Marshy Areas	Hilly Areas	Deserts
Name of the plants	Sheesham, Sal, Gulmohar, Pipal, Banyan.	Mangroves, Kendelia, Ceriops.	Pine, Spruce, Fir, Deodar, Cedar.	Cactus, Brittlebush, Date Palms, Palm
Types of leaves (short, wide, flat, needle-like)	Flat, long	Flat, wide, short	Cone shaped, leaves are modified into spines.	Thorny

Heights of the plants (short, middle-sized, tall)	Tall and wide	Less tall than plants in plains	Trees are very tall and straight.	Very short
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C. Identify the animals. Write if they are terrestrial.

Ans:

1. Frog - Terrestrial and Aquatic - Amphibian
2. Eagle - Terrestrial
3. Fox - Terrestrial
4. Monkey - Terrestrial - Arboreal
5. Giraffe - Terrestrial

5. Reproduction in Animals

LEAD QUESTIONS

Horses.....

Ans: give birth to babies (✓)

The young one of a frog is called a

Ans: Tadpole (✓)

WORK CORNER

Fill up the blanks.

Ans:

1. The round, yellow coloured part of an egg is called **egg yolk**.
2. The young one of a frog is called the **tadpole**.
3. Frogs lay eggs in large clusters called **spawns**.

4. The process of keeping the eggs warm by the bird is called **hatching**.
5. The egg yolk provides food to the **embryo**.
6. The hard protective shell that covers the egg is called **egg shell**.
7. A female frog lays hundreds of eggs in **water**.

EXERCISES

A. Tick (✓) the correct option:

Ans:

1. This is the process by which animals produce their young ones.
(b) reproduction (✓)
2. One of the following gives birth to many babies at a time.
(b) dog (✓)
3. Which of these does not lay eggs?
(c) bear (✓)
4. A baby frog is called a
(a) tadpole (✓)
5. The larva of a butterfly is called a.....
(b) caterpillar (✓)
6. The white jelly-like substance inside the egg is called.....
(b) albumen (✓)

B. Write 'T' for a true statement and 'F' for a false one:

1. Mammals reproduce by laying eggs. : [F]
2. A tadpole has a tail and looks like a fish. : [T]
3. The baby of a cockroach is called a caterpillar. : [F]

4. Lizards lay eggs on the ground. : [T]
5. Pupa sheds its skin few times. : [F]

C. Write one word for the following:

1. Large clusters in which frogs lay eggs. : Spawns
2. Shedding of old skin by a pupa. : Moulting
3. The process of development in which a young one does not resemble the adult animal at all. : Metamorphosis
4. A thin protective shell of an egg. : Bloom or Cuticle
5. Animals that give birth to their young ones. : Mammals

D. Look at the picture and label its parts. Then write the role of each part.

Ans: Part's Name : Albumen (Egg white)

Role : Albumen is a white, jelly-like substance which is rich in protein . Albumen protects the embryo from shocks and provides it with water.

Part's Name : Shell

Role : It is the hard, protective shell of egg. It covers the egg and is called egg shell.

Part's Name : Yolk

Role : It is the inner part of an egg. The egg Yolk is round, yellow coloured part which is rich in minerals, fats and vitamins. It provides food to the embryo.

E. Short answer type questions:

1. What is reproduction?

Ans: Reproduction is a process by which an adult organism reproduce young ones of its own

kind. Some animals reproduce by giving birth to young ones of their own kind. While other animals reproduce by laying eggs.

2. What is metamorphosis?

Ans: A complete change from the young one to an adult form is called metamorphosis.

3. How is a tadpole different from an adult frog?

Ans: A tadpole has a tail and looks like a fish. It swims in water and eats water plants. Later, it grows legs. The tail also becomes shorter and disappears finally. Gradually, the tadpole changes into an adult frog.

4. Name the various stages in the life cycle of a cockroach.

Ans: A cockroach develops by completing a life cycle consisting of three distinct stages: Egg, Nymph and Adult. The cockroach's life cycle starts with the production of eggs. Adult female produces between 9 to 10 oothecae during its lifespan. Each ootheca contains about 50 eggs.

5. Where do lizards and snakes lay their eggs?

Ans: Lizards and snakes lay their eggs on the ground.

F. Long answer type questions:

1. How do mammals take care of their babies? Explain.

Ans: When babies of mammals are born, they are weak and helpless. Usually, mother takes care of babies. She feeds them and protects them

from enemies. In some mammals like monkeys and wolves, father also takes care of babies. They guard and protect them from enemies.

2. Explain the different stages of development of a hen.

Ans: A hen lays eggs. For many days, eggs are kept warm by hen. This is called incubation. After incubation, eggs hatch. Baby birds are fed by hen. After developing flight feathers, they learn to search for food. Next year they will mate and have young ones of their own. The cycle begins again.

Life cycle of a Hen

Hen → Egg → Embryo → Hatching → Chick → Hen

3. Describe the life cycle of a frog.

Ans: A frog lays eggs in water. A clump of eggs are seen floating in water called frog's spawn. Embryo inside eggs develops. Embryo leaves its jelly shell and becomes a tadpole; a baby frog. Tadpole grows until it is big enough to break free into water. It has a long tail without any limbs and lives in water. It begins to grow hind-legs and then forelegs. Tail becomes shorter. Lung begins to develop, preparing frog for its life on land. A fully developed frog with lungs, legs and no tail emerges. The complete change from an egg to tadpole to an adult frog is called metamorphosis.

Life cycle of a frog

Adult Frog → Eggs → Embryo →
Tadpoles → Gills for breathing → Tail
keeps growing → Hind legs appear →
Eats food stored in tail → Fore legs appear
→ Tail becomes shorter → Young frog →
Adult frog

4. Differentiate between a larva and a nymph.

Ans: Larva : Worm-like creature is Larva.

Nymph : When the babies of insects such as cockroaches, grasshoppers and termites hatch, they look like parent insects, but they do not have wings. They are called Nymphs.

Activity Based Learning– NEP 2020

Label the life cycle of the given animals.

Ans:

1. Eggs → Tadpoles → Young frog → Adult frog
Life cycle of a frog
2. Egg → Caterpillar → pupa → Adult butterfly
Life cycle of a butterfly.
3. Hen → Egg → Hatching → Chick → Hen
Life cycle of a hen.

Q. Whose young ones/eggs are these? Write in the space provided.

- Ans:
1. Hen
 2. Cat
 3. Man
 4. Lion
 5. Grasshopper
 6. Frog

Q. Do all young ones resemble their parents?

Ans: No.

Project Idea

A. Do it yourself.

B. If you see a stray dog with its puppies outside your house, what will you do? Write YES or NO to answer each of the questions.

Ans:

1. Throw stones at them to drive them away. : NO
2. Ask your parents to give them food and water. : YES
3. Tease them. : NO
4. Ask your neighbours to take care of them. : YES
5. Ask your parents to make a temporary house for them. : YES

6. Food and its Preservation

LEAD QUESTIONS

Which of these foods give you energy?

Ans: bread (✓)

Which of these should we use to preserve fish?

Ans: Salt (✓)

WORK CORNER

Fill up the blanks.

Ans:

1. Foods we eat contain substances called nutrients.

2. Food items rich in carbohydrates are called energy giving foods.
3. Fats provide more energy than carbohydrates.
4. Proteins are called body-building foods.
5. Milk and milk products are rich in vitamins and minerals.

HOCS

What will happen if we eat only protein rich foods.

- (i) There will be lack of vitamins and minerals in the body. We will get vitamin and mineral deficiency diseases.
- (ii) Insufficient carbohydrates will cause fatigue and weakness affecting physical and mental performance adversely.
- (iii) Shortage of roughage foods such as fruits vegetables and grains will cause digestion problems.
- (iv) High protein diets will put strain on kidney.
- (v) There will be deficiency of calcium and iron. So, there will be risk of osteoporosis and anaemia

WORK CORNER

Give one-word answer for each of the following:

Ans:

1. Food that contains all nutrients in right amount.
: Balanced Diet
2. Substance which adds bulk to the food. :
Roughage

3. This helps in the removal of waste from our body. : Water
4. This helps the body to form blood. : Iron

HOCS

Expiry dates and ‘Best before’ dates are indicators of due date of jam’s freshness and safety for consumption. The jam without best before date does not show the date it will remain fresh and safe as jams have a limited lifespan. It will be a risk for Jiya’s health therefore Jiya should buy jam with ‘Best before’ date mentioned on the bottle.

EXERCISES

A. Tick (✓) the correct option:

Ans:

1. Potatoes are rich in
(a) Carbohydrate (✓)
2. Vitamins C is easily destroyed by
(a) sundrying (✓)
3. Pickles can be preserved by
(a) canning and bottling (✓)

B. Write two examples for each of the following:

Ans:

1. Carbohydrate-rich food items. : Cereals, Potatoes
2. Protein-rich food items. : Milk, Meat
3. Vitamin-rich food items. : Vegetables, Fruits
4. Iron-rich food items. : Leafy Vegetables, Apples

5. Roughage-rich food items. : Raw fruit,
Salads

C. Give reasons.

Ans:

1. Bread tastes sweet after it is chewed for a while.
Reason: It is because saliva in the mouth changes starch in the bread to sugar.
2. A rickshaw puller needs a carbohydrate-rich diet.
Reason: It is because he needs a lot of energy to do the heavy physical work that he does.
3. The water in which pulses are soaked should not be thrown away.
Reason: Soaking makes nutrients of pulses dissolve into the water. It is because the water contains the nutrients. These nutrients are lost if water is thrown away.
4. Wash fruits before peeling them. Reason: It is because they may contain dirt, dust, germs, etc.
5. Over-cooked food is not healthy. Reason: It is because the over-cooking destroys the nutrients present in the food.
6. Chew food properly before swallowing it.
Reason: Properly chewing the food helps in the process of digestion.
7. Left-over food is kept in the refrigerator.
Reason: To preserve the food for a day or two.
8. Food should be eaten at fixed hours.
Reason: It helps in proper food digestion.

D. Write 'T' for a true statement and 'F' for a false one:

- Ans: 1. Cereals are rich in fats. : [F]
2. Adults need more proteins than young children.
: [F]
3. Calcium helps to build bones and teeth. : [T]
4. Freshly prepared food is safe and clean. : [T]

E. Short answer type questions:

1. What is the importance of food in our life?

Ans: There is a lot of importance of food in our life. Food is our basic need. We cannot survive without food. Food gives us energy to work and play. It repairs our body and protects us from diseases. Food also keeps us strong and helps us to grow.

2. Why should we drink sufficient amount of water every day?

Ans: Water is essential part of diet and helps us in many ways. It helps in digestion and maintains body temperature. At least 8 glasses of water should be taken every day. It helps in proper functioning and removal of waste from body.

3. What do carbohydrates and fats provide the body?

Ans: Carbohydrates and Fats help our body in the following ways:

Carbohydrates : Carbohydrates provide us energy. They contain high amount of starch and are called energy-giving food such as bread, rice, noodles and oats. People doing physical

activity should eat these items.

Fats : Fats like Butter, Oil, Ghee and Margarine are sources of fats and give more energy than carbohydrates. Over-consumption of fat items is not good for health. Fat give us warmth.

4. Why does the body need proteins?

Ans: Proteins are building blocks of our body and help us grow. They build muscles and repair worn-out tissues and cells. Eggs, Meat, Milk and Fish are body-building foods. Children in their growing ages need protein-rich food.

5. Why should we eat different kinds of food? Give two reasons.

Ans: We should eat different kinds of food because of the following two reasons:

- (i) Different parts of body required different foods to grow and function.
- (ii) Different food items contain different nutrients.

6. Define the following:

Ans:

- (a) **Nutrient :** The food we eat contains substances that are necessary for our body. These substances are called nutrients.
- (b) **Balanced diet :** A diet that has all nutrients in right amount along with enough water and roughage is called a balanced diet. We should always eat a balanced diet.
- (c) **Roughage :** Some portion of food that we get from plants is not digested, but helps in

digestion. Such food items are called roughage or dietary fibres and are found in fruits, vegetables, grains and legumes.

- (d) **Food Preservation :** Preservation of food means to protect it from germs so that it may not get spoiled. There are various ways of preserving food like: Deep Freezing, Pickling and Jellying, Boiling, Drying, Refrigerating and Canning.

7. What is the importance of roughage?

Ans: Roughage is fibrous part of food which cannot be digested by body. Some portion of food that we get from plants is not digested, but help in digestion and removal of waste out of the body. Such food items are roughage or dietary fibres and are found in fruits, vegetables, grains and legumes.

F. Long answer type questions:

1. Explain different methods of food preservation.

Ans: Different methods of food preservation are:
Deep Freezing : Meat, ice-cream, vegetables and fish can be stored for a long time in a freezer at very low temperature.

Pickling & Jellying: It is used for preserving fruits and vegetables. They are mixed with salt and oil to make pickles. They are also mixed with sugar to make jams and jellies to preserve them.

Boiling : Milk is boiled and then cooled down to preserve it for a day or two.

Drying : Food such as grapes and milk are dried to remove water content. After drying, food items can be stored for a longer time.

Refrigeration : Food is stored in refrigerators for a day or two. We keep milk, cooked food and raw fruits and vegetables in a refrigerator.

Canning : Sauces, jams and juices are stored in cans and bottles. Chemical preservatives are added to keep them fresh for a long time.

2. Name the different components of food. Explain any three of these.

Ans: Different components of food are Carbohydrates, Fats, Proteins, Vitamins, Minerals, Water and Roughage. Three of these are as follows:

- (i) **Carbohydrates** : Carbohydrates are food items that give us energy. They contain high amount of sugar and are called energy-giving food such as bread, rice, noodles and oats. People doing physical activity should eat more of these items.
- (ii) **Proteins** : Proteins are building blocks of our body and help us grow. They build muscles and repair worn-out tissues and cells. Eggs, Meat, Milk and Fish are body-building foods. Children in their growing ages need more protein rich food.
- (iii) **Vitamins & Minerals**: Vitamins and Minerals provide us essential nutrients and help us remain healthy, fight diseases and germs. They protect us from falling

sick. They are also called Protective Food. Green leafy vegetables and fresh fruits give us vitamins and minerals which are good for our health.

3. What is a balanced diet? Make a food pyramid showing the different groups of food.

Ans: A diet that has all nutrients in right amount along with enough water and roughage is called a balanced diet. We should always take a balanced diet. Excess or lack of any nutrients in body is harmful. We should have enough food from each food group every day.

(for food pyramid see illustration given in textbook page No -296)

4. Write a short note on proper cooking practices.

Ans: Some proper cooking practices are as follows:

- (i) Food must be cooked properly. Otherwise, nutrients can be destroyed. Vitamin C is easily destroyed by high temperature.
- (ii) We must not throw away water in which rice, pulses or vegetables are boiled because the water contains nutrients.
- (iii) Cooking kills germs and makes food safe to eat.
- (iv) Some common cooking practices are steaming, frying, roasting, boiling and baking.

Activity Based Learning – NEP 2020

- A. Do it yourself.
B. Left to Right: Protein- Protein Carbohydrate
Vitamins

Project Idea

Do it yourself.

7. Our Teeth

LEAD QUESTIONS

Have you lost any of your milk teeth?

Ans: yes (✓)

Which of these teeth do you use to bite an apple?

Ans: front teeth (✓)

EXERCISES

A. Tick (✓) the correct option:

Ans:

- The first set of teeth is called.....
(a) Milk Teeth (✓)
- Teeth help.....
(a) chew food (✓)
- The part of the tooth which is seen is called the
(b) Crown (✓)
- The maximum number of teeth in an adult person is
(b) 32 (✓)

B. Short answer type questions:

1. Differentiate between milk teeth and temporary teeth.

Ans: There is no difference between milk teeth and temporary teeth.

First full set of 20 teeth that appear at the age of 7 – 9 months are called Milk Teeth is the common term in the colloquial language or Primary Teeth By the age of 6 – 7 years, they begin to fall. Another set of larger teeth replace them which are called permanent teeth.

When we are 21 years old, we have full set of 32 permanent teeth. If they fall off, they do not grow. In the non-medico language the initial or baby teeth are called milk teeth. But temporary teeth is more commonly used in dental and medical contexts.

2. Name the types of teeth.

Ans: Types of teeth are:

1. Canines
2. Molars
3. Incisors
4. Premolar

3. Name some foods that keep teeth healthy.

Ans: Some foods that keep teeth healthy are:

- (i) Sugarcane
- (ii) Raw carrots
- (iii) Green vegetables
- (iv) Milk
- (v) Oranges, Lemons, Bananas
- (vi) Fish

4. What are wisdom teeth?

Ans: In an adult, four more teeth grow at the end of jaws. These are called wisdom teeth.

C. Long answer type questions:

1. Draw the structure of a tooth and label its parts.

Ans: Drawing – Individual response

The structure of a tooth is as follows:

There are 2 main parts of a tooth –Crown and Root. Top part of tooth visible above gum is called Crown. Below the crown the inside gum is called Root. Root holds tooth to its place.

There are three layers of a tooth:

- (i) Enamel : It is outer white layer. It is hardest substance in a human body.
- (ii) Dentine : It lies below Enamel. It is slightly yellow in colour. It is not as hard as the enamel.
- (iii) Pulp : It is innermost layer of tooth. It is soft and consists of blood vessels and nerves. It sends signals to brain.

2. Write a few simple rules of dental care.

Ans: A few simple rules of dental care are as follows:

- (i) Make sure that movement of brush is in both upward and downward directions.
- (ii) Use a dental floss to clean food particles stuck between teeth.
- (iii) Brush teeth lightly.
- (iv) Wash and rinse mouth after every meal.
- (v) Avoid eating lots of sweets and soft drinks.
- (vi) Eat fruits and vegetables rich in Vitamin C.
- (vii) Visit dentist at regular intervals for check-up.

3. Explain the different types of teeth.

Ans: There are 4 types of teeth as follows:

- (i) Incisors : There are 8 Incisors: 4 on each jaw. They are placed at front. They help bite food we eat.
- (ii) Canines : There are 4 Canines: 2 on each jaw. A canine is placed next to Incisors on either side. They are used to tear off flesh. Carnivores like tigers, wolves and dogs have very sharp and pointed Canines.
- (iii) Premolars : There are 8 Premolars: 4 on each jaw and 2 on either side. They are placed between Canines and Molars. They are broad and strong. They are used to chew food.
- (iv) Molars : There are 12 Molars: 6 on each jaw and 3 on either side. They are flat, broad and strong teeth that help grind food. They are placed at back after Premolars on each side.

Activity Based Learning – NEP 2020

Do it yourself.

Project Idea

Do it yourself.

TEST YOURSELF

A. Find the following words in the word-search.

Ans: Do it yourself.

B. **Tick (✓) the ones which you feel are correct and cross (X) the ones which are incorrect.**

Ans:

- Always wash your hands with soap before eating. : [✓]
- Eat fibre-rich food sometimes. : [X]
- Eat freshly prepared food at a proper time. : [✓]
- Drink water as soon as you wake up in the morning. : [✓]
- Eat fried foods, sweets and ice-cream every day. : [X]
- Eat all kinds of food and not just what you like. : [✓]
- Do not over-eat as your body will not be able to digest all the food. : [✓]
- Drink at least 6 glasses of water during the day. : [✓]

C. **Look at the pictures of various kinds of teeth. Identify what kind of tooth each is.**

Ans: Molar Canine Premolar Incisor

TEST PAPER - 1

A. Tick (✓) the correct option:

Ans:

1. Foods such as chapattis, rice and potatoes are rich in
(c) Carbohydrates (✓)
2. This is the animal which lays eggs
(d) Snake (✓)
3. Glass is made by heating a mixture of sand, lime and
(a) bedrock (✓)
4. The process by which a solid changes to its liquid form is called
(c) Melting (✓)
5. The leaves of one of the following plants have adapted to reduce loss of water and also provide protection.
(b) Cactus (✓)

B. Fill up the blanks.

Ans:

1. Starch is a form of food made by plants.
2. Molecules are closely packed in solids.
3. Green leaves are capable of making food because they have chlorophyll in them.
4. Trees are tall and straight in mountainous or hilly areas.
5. Mangroves grow in marshy areas.

C. Write 'T' for a true statement and 'F' for a false one:

Ans:

1. Foods rich in fats are called Protective Foods.

- : [F]
2. Tiny pores on the underside of the leaves are called spiracles. : [F]
3. Liquids have a definite volume, but no definite shape. : [T]
4. The liquid we get when a solute dissolves in a solvent is called solution. : [T]
5. Trees such as pine, fir, deodar and spruce grow in marshy areas. : [F]

D. Answer these questions:

1. Foods rich in proteins are called building foods. Why?

Ans: Proteins are building blocks of our body and help us grow. They build muscles and repair worn-out tissues and cells. Eggs, meat, milk and fish are body-building food. Children in their growing ages need more protein rich food.

2. How do green plants make their food?

Ans: Green plants make their food by the process of 'photosynthesis'. 'photo' means light and 'synthesis' means putting together. Photosynthesis is a process in which green plants make food in the presence of air, water and sunlight. Green leaves take water and minerals from soil by roots. Chlorophyll in leaves traps light energy from Sun. In the presence of carbon dioxide and air, food-making process starts. Oxygen is released as byproduct and food is stored in the form of starch in various parts of plants.

Social Studies

Chapter 1 : Our Motherland

Intext Assessment:

1. Himachal Pradesh
2. Rajasthan
3. Varanasi

Practise These

- A. 1. 28, 2.five.
- B. 1. India is situated in the southern central part of Asia.
2. The neighbouring countries of India are Pakistan to West, China, Nepal and Bhutan to the north and Bangladesh and Myanmar to the east. Sri Lanka and Maldives lie to the south.
3. In shape, India is broad in the middle. It narrows down towards the south forming a triangular peninsula. India has an area of about 32.87 lakh sq. km. Its length from north to south is about 3,214 km and its width from east to west is 2,993 km.
4. The five physical divisions of India are:
- a. The Northern Mountains
 - b. The Northern Plains
 - c. The Western Desert
 - d. The Southern Plateaus
 - e. The Coastal Plains and Islands
- C. 1. Southern Central
2. Seventh
 3. Second
 4. Nepal Sri lanka

HOCS:

North to South

Chapter 2 : The Northern Mountains

Intext Assessment:

1. Day to day lives of the people who reside in or nearly mountain area.
2. There are scarcity of means of livelihood and mode of transport, it has harsh weather condition, less employment and agricultural facilities.

Practise These

- A. 1. d, 2. d, 3. b.
- B. 1. The Himalayan range is a mountain range in Asia separating the Indian sub-continent from the Tibetan plateau.
2. The four ranges of the Himalayas are
 - a. The Trans-Himalayas
 - b. The Himadri
 - c. The Himachal
 - d. The Shiwaliks
 3. The Himalayan range extend for about 2500 km like an arc from Kashmir to Arunachal Pradesh. The width of the Himalayas varies between 150 km and 400 km.
 4. Some of the world's major rivers namely the Ganges, the Indus, the Brahmaputra the Yangtze Kiang, the Mekong, the Salween, the Red River (Asia), the Xunjiang, the

Chao Phraya, the Irrawaddy River, the Amu Darya, the Syr Darya, Tarim River and the Yellow River rise from the Himalayas.

- C. 1. The Himalayas serve us in the following ways:
 - a. They guard our northern borders. The enemies cannot cross our borders easily. Thus, the Himalayas act as a huge protective wall.
 - b. The Himalayas protect us from the severe cold winds coming from the north.
 - c. They check the rain-bearing monsoon winds coming from the Bay of Bengal and the Arabian Sea from going away from India.
 - d. The Himalayas have thick forests and a varied and abundant wildlife.
2. The Himalayas check the rain-bearing monsoon winds coming from the Bay of Bengal and the Arabian Sea from going away from India. The monsoons cause heavy rainfall all over the northern plains.
3. The four peaks of the Himalayas are the Mt Everest, K2, Kanchenjunga and Dhaulagiri the highest mountain peak in India the K2 or Godwin Austen.
4. The Eastern branches of the Himalayas include hills, such as the Garo, the Khasi and the Jaintia. The hills located in Meghalaya in the northeast, like the Patkai, the Naga, the Lushai and the Mizo also

form a part of the Himalayan ranges. These hills are not very high. However, these are thickly forested hills.

- D. 1. Narrower, broader, 2. Bachendri Pal,
3. K2 , 4. Shiwalik Range.

HOCS:

Throwing of untreated sewage, agricultural waste, untreated industrial waste, oil leakage, garbage, untreated chemicals into the river in the towns and cities gets them polluted.

Chapter 3 : The Northern Plains

Intext Assessment:

1. Plains
2. Mountains are highlands whereas plains are flat lands.

Practise These

- A. 1. a, 2.b, 3. b.
- B. 1. The three principal rivers of the Northern Plains are the Satluj, the Ganga and the Brahmaputra.
2. The Northern Plains are feature as they are fed by three great rivers. They have fertile alluvial soils, which are excellent for growing crops.
 3. A delta is a triangular land where a river divides before entering a large body of water.
 4. The Ganga and the Brahmaputra together

3. Gangotri,
4. Alluvium,
5. Beas.

HOCS:

The northern plain is called the 'Food bowl of India' because plenty of food crops are grown here due to the presence of alluvial soil and availability of water.

Chapter 4 : The Western Desert

Intext Assessment:

1. Desert
2. a. Scarcity of water
b. Scorching heat
c. Poor soil quality

Practise These

- A. 1. b, 2. d, 3. b.
- B. 1. A desert is an area of land which has little rainfall and almost no vegetation. It may have a sandy or a rocky surface.
2. In a desert, the underground water comes to the surface as spring at some places. These places are called oasis.
3. Due to lack of rain, few plants grow here. We only find plants like date palm and scattered through trees of babool, kikar and cactus plants and bushes.
- C. 1. The region experiences an extreme type of climate. It is very hot in summer and very cold in winter. It is so because sand gets

heated or cooled quickly. In winter, the days are warm, but the nights are cold. The region gets very little rainfall as there are no rivers in the region.

2. Scarcity of water is the main problem in the desert. Overgrazing of animals has aggravated the problem. Our government has been trying to supply water to this arid region since independence. The Indira Gandhi Project has changed the face of this desert. This canal brings water from the Satluj river and supplies it to many parts of this region. Many dry areas along the canal have turned green with planting of trees.
- D. 1. Thar, 2. western,
3. sandy, 4. extreme.

HOCS

No, sand dunes cannot be used as landmarks to give direction in a desert. Because sand dunes do not remain at one place. The strong winds of the desert keep moving the dunes from one place to another.

Chapter 5 : The Plateaus

Intext Assessment:

1. Black soil
2. Wheat, cotton, oilseeds, sugarcane., etc. are major crops are grown on the black soil.

Practise These

A. 1. b, 2. c, 3. c.

B. 1. The four major parts of the Plateau region are.

a. The North-Western or the Malwa Plateau

b. The North-Eastern or the Chota Nagpur Plateau

c. The Deccan Plateau

d. The Southern Plateau

2. Iron and steel are found in Chhota Nagpur Plateau.

3. The major rivers of the Peninsular Plateau are Chambal, Mahi, Mahanadi, Damodar, Subarnarekha, Brahmani, Kaveri and Sarasvati rivers.

C. 1. The Peninsular India is a west Plateau extending over the major parts of Maharashtra, Madhya Pradesh, Jharkhand, Odisha, Andhra Pradesh, Karnataka, Tamil Nadu and parts of Gujarat and southern Uttar Pradesh. It is triangular in shape with its base in the north of the apex in the south. The average height of the plateau varies between 1000 to 3000 m.

2. The Deccan Plateau lies to the south of the Indo-Gangetic plain. The plateau is bounded by the Western Ghats on the west and by the Eastern Ghats on the east.

The southern most portion of plateau is drained by the Kaveri river, which rises in the Western Ghats of Karnataka and breaks through the Nilgiri hills at the Hogenakal

Falls into Tamil Nadu.

- D. 1. Vindhyan range,
2. Chota Nagpur,
3. Deccan,
4. Palghat.

HOCS:

Plains and plateaus are both flat areas of land, 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.

Chapter 6 : The Coastal Plains and the Islands

Intext Assessment:

1. Coastal Plains
2. Do it yourself.

Practise These

- A. 1. 7500km., 2. Chennai, 3. Kanyakumari,
4. The Arabian Sea.
- B. 1. India has a coastline of about 7500 km.
2. The rivers that make deltas are Mahanadi and Krishna. The rivers that made estuaries are Narmada and Tapi.
- C. 1. The two plains differ from each other in the following way:
a. The Eastern coastal plains are wider, particularly at the mouths (deltas) of the rivers. The western coastal plains are

narrow, except in Gujarat.

- b. The Eastern coastline is straight, while the western coastline is irregular.
 - c. The Eastern coastal areas facing the Bay of Bengal often face the threat of cyclones and storms.
 - d. The Eastern Coastal Plains are densely populated while the western coastal plains (except in Kerala) are sparsely populated.
 - e. The Eastern Coastal Plains do not have a good natural harbour, whereas there are a number of natural harbours on the Western Coastal Plains.
2. The climate of the Andaman and Nicobar Islands can be defined as humid, tropical coastal climate. The islands receive rainfall from both the southwest and the northeast monsoons and maximum precipitation is between May and December. The Andaman Islands are full of dense forest. There are 293 in number.

The Lakshadweep Islands are a group of 36 islands situated in the Arabian Sea. Ten of these islands are inhabited. These are coral islands which have lagoons

too.

D. 1. T, 2. F, 3. F, 4.T, 5. T.

HOCS:

People are less living on Island because

resources are not easily available there. Most of the land area of such islands is covered with forest.

Chapter 7 : The Climate of India

Intext Assessment:

1. Yes
 - a. Monsoon
 - b. Summer
 - c. Winter
2.
 - a. The rain bearing winds start blowing in monsoon.
 - b. Hot winds called ‘ Loo’ begin to blow in the summer season.
 - c. During winter , the mountains get snowfall. Cold wave sweeps the entire northern plains.

Practise These

- A. 1. c, 2. a, 3. a, 4. c.
- B. 1. summer, 2. scarcity, 3. Cold wave, 4. longer, shorter, 5. July.
- C. 1. Mawsynram in Meghalaya receives the highest rainfall in the world.
 2. The Northern plains get some rainfall from the cyclones coming from the west in the winter season.
 3. Gujarat and Rajasthan get very low rainfall.
- D. 1. The countries of the world can be divided into different climatic zones based on factors such as location, surface relief, surface wind and upper air circulation. In India, there are

four main seasons—winter, summer, rainy and post monsoon.

2. Practically, the whole country gets rainfall in July, which is the rainiest month. The rain bearing monsoon winds start blowing from south westerly direction from the Arabian sea and the Bay of Bengal. The monsoon winds begin to recede from north India at the end of September.

HOCS:

Mumbai is neither too hot nor too cold because it is situated on sea coast. The breeze blow over the sea and land cools it down.

Test Paper

- A. 1. The shape of India is broad in the middle. It narrows down towards the south forming a triangular peninsula.
India has an area of about 32.87 lakh sq. km. Its length from north to south is about 3,214 km and its width from east to west is 2,993 km.
2. The Himalayan range is mountain range in Asia separating the Indian sub-continent from the Tibetan plateau.
3. The Himalayas serve us in the following ways:
 - a. They guard our northern borders. The enemies cannot cross our borders easily. However, they can cross through passes

Our armed forces guard these passes to check the enemy from crossing over to India. Thus, the Himalayas act as a huge protective wall.

- b. The Himalayas protect us from the severe cold winds coming from the north.
 - c. They check the rain-bearing monsoon winds coming from the Bay of Bengal and the Arabian Sea from going away from India.
 - d. The Himalayas have a varied and abundant wildlife.
4. The Ganga enters the Northern Plains at Haridwar. The Yamuna joins it at Allahabad. The Chambal, the Sindh, the Betwa and the Ken rivers, in turn join the Yamuna. They all stream through the Malwa Plateau before entering into the Northern Plains. The Son river is the only big river that joins the Ganga from the Southern Plateau. Further east, the Damodar river, running the entire region of the Chhota Nagpur Plateau, joins the Hugli river.
5. Thar desert is a large, arid region in the north-western part of the Indian sub-continent. It is also known as the Great Indian Desert. It has an area of more than 2,50,000 sq. km. It is the ninth largest sub-tropical desert of the world. It lies mostly in Rajasthan. Some portion of Thar also extends to Gujarat, Haryana, Punjab, Chandigarh; it also extends to Pakistan.

- little rainfall and almost no vegetation.
5. True

Chapter 8 : Types of Soils

Practise These

- A. 1. a, 2. b, 3. a, 4. c.
- B. 1. Soil is a thin layer of material on the earth's surface in which plants have their roots. Soil formation takes place when many things interact, such as air, water, plant life animal life, rocks and chemicals. The formation of soil can take a 1000 years or more.
2. The major types of soil in India are Sandy soil, Silty soil, Clayey soil, Loamy soil, Peaty Soil, Chalky Soil.
- C. 1. Soil erosion is the carrying away of the top layer of soil by wind or water to different places. soil erosion is caused by wind and rain, can change the land by wearing down mountains, creating valleys, making rivers appear and disappear.
2. The various measures that should be taken to conserve soil are:
- We should control the falling of trees.
 - We must plant trees.
 - On hilly slopes, we can make terraces. The terraces do not let the water run down and thereby reduce soil erosion.
 - We can control water flow by building dams and reservoirs.
 - Stop the overgrazing of land.

- D. 1. Sunshine and water,
2. Sandy soil,
3. alluvial,
4. lava
- E. 1. False,
2. False,
3. False,
4. True,
5. True,
6. True.

HOCS:

When it rains , water fills up all the spaces occupied by the air in the soil . In this situation earthworms come out of the soil for respiration.

Chapter 9 : Our Forests and Wildlife

Intext Assessment:

Natural

1. Water
2. Soil
3. Wood
4. Fruits
5. Honey
6. Petrol
7. Gold
8. Cotton
9. Milk

Man- made

1. Glue
2. Pencil
3. Pen
4. Honey
5. Soap
6. Medicines
7. Oils
8. Rubber
9. Paper

Practise These

- A. 1. a, 2. a, 3. b.

- B. 1. Natural vegetation in the vegetation that grow under natural conditions.
2. Uses of forests are as follow:
- a. Forests absorb much of the carbon-dioxide in the air and release oxygen. Thus, they help to reduce pollution.
 - b. Trees and plants in forests prevent soil erosion.
 - c. Forests absorb moisture and help in rainfall.
 - d. Forests perform the function of climate control in a big way.
3. The following are the major types of forests in India:
- a. Tropical Evergreen Rainforests
 - b. Deciduous or Monsoon Type of Forests
 - c. Dry Deciduous Forests and Shrubs
 - d. Semi-desert and Desert Forests (Thorny Forest)
 - e. Tidal or Mangrove Forests
 - f. Mountainous Forests or Coniferous of Himalayan Forests.
4. Vanamahotsava is a program of afforestation in the country. It is celebrated every year in the begining of the rainy eason to plant trees.
- C. 1. b, 2. c, 3. d, 4. e, 5. f, 6. a.

HOCS:

Plants in the desert have long root to gather water that is far down under the surface of the earth.

Chapter 10 : Our Water Resources

Practise These

A. 1. b, 2. c, 3. a.

B. 1. Water is necessary for life as we need it for various purposes like drinking, cooking food, washing clothes and for many other things.

2. Agriculture in India is dependent on monsoons. The irregularity of the monsoon rain may lead to crop failures. Thus, irrigation is necessary.

3. The major dams and river valley projects in India are:

a. The Nagarjuna Sagar Dam, built on the Krishna river in Andhra Pradesh.

b. The Tungabhadra Dam, on the Tungabhadra river, Karnataka.

c. The Narmada Dam Project on the Narmada river, Madhya Pradesh.

d. The Farakka Barrage built on the river Ganga in West Bengal.

4. Some environmentalists, like Medha Patkar and Sunda lal Bahuguna, have protested against the constructed of the Narmada Dam (Gujarat) and Tehri Dam (Uttarakhand). They feared that the construction of these dams would submerge large areas which are under forests and will displace the local people.

5. Water is necessary for life as we need it for various purposes like drinking, cooking

food, washing clothes and for many other things.

6. The water resources in India include the waterbodies such as rainwater, river, lakes ponds tanks, wells, rainwater etc. It can be divided as surface water, underground water and rainwater.

C. 1. c, 2. f, 3. a, 4. d, 5. e, 6. b.

HOTS:

Water birds flock to dams because they get feeds like sallow fishes, aquatic insects, water herbs, etc.

Chapter 11 : Our Mineral Resources

Intext Assessment:

1. Fuel
2. Petroleum, Diesel

Practise These

A. 1. c, 2. b, 3. a.

B. 1. Minerals are the wealth of resources buried deep under the surface of the earth.

2. A naturally occurring mineral from which metals can be obtained is called ore.

3. India has the world's largest deposits of coal. Bituminous coal is found in Jharia and Bokaro in Bihar and Raniganj in West Bengal. Lignite coal is found in Neyveli in Tamil Nadu.

4. Petroleum deposits are found in Assam and Gujarat. The potential oil bearing areas are

Assam, Tripura, Manipur, West Bengal, Punjab, Himachal, Kutch and the Andamans.

- C. 1. Iron ore is the most important of all the mineral because from a small useful piece of needles to knives, tools, engines, ships, building, dams, factories, etc, iron is used to make them.
2. Minerals are exhaustible resources. It takes millions of years for their formation. Coal and petroleum deposits are fast depleting. Scientist are trying to find alternatives to these minerals.
3. To save coal and petroleum, as a sources of power solar, wind and water energy can be used as alternatives.
- D. 1. e, 2. f, 3. b, 4. a, 5. c, 6. d.

HOCS:

Electric wires made up of copper and not any other metal because it is a good conductor of electricity.

Project Work

Name of the things	Name of this metal	The qualities of the metal that make the things usable
1. Plate	1. Steel	1. Hard
2. Statue	2. Silver	2. Shiny
3. Earrings	3. Gold	3. shiny&Lustrous
4. Electric wire	4. Copper	4. Good Conductor of electricity

Chapter 12 : Animal Wealth of India

Intext Assessment:

1. Camel
2. Camel is known as the ship of desert because they have broad feet which make them walk easily on sand without any difficulty.

Practise These

- A. 1. c, 2. c.
- B. 1. A dairy is a place where milch animals are reared and milk products like cream, butter and cheese are made. The process is called dairying.
2. To increase the yield of milk of cows and buffaloes, better quality of fodder is being provided to farmers. To improve the breed of farm animals, artificial insemination centres have been set up. Due to all of these efforts, milk production in the country has increased significantly. This increase in milk production or dairying is called the White Revolution.
- C. 1. meat, 2. poultry,
3. milk.

HOCS:

These animals are called the beast of burden because they are helpful for the people to carry load from one place to another.

Chapter 13 : Human Resources

Intext Assessment:

Human resource.

People of a country are known as its human resources.

Practise These

A. 1. a, 2. d, 3. a.

- B. 1. Natural resources alone cannot make a country great and prosperous. We need the people who are educated and skilled to develop and convert the natural resources into useful things. Therefore, the people of a country are its greatest resources.
2. The greatest problem of our country is its huge population.
 3. The demand of food, water, houses etc., has increased with the growing population. But our natural resources are fixed. They and the services cannot be expanded beyond certain limit. Thus, the growing population weakens our economy and society. The number of illiterate people increases and unemployment continues to grow.
 4. Our Government is trying to build up and improve our skills of doing things more efficiently. Family planning, mass literacy, environmental protection, opening of new factories, hospitals and medical facilities, free primary education etc., are other

important programmes for human resource development. Our Government has a human resource department to look into the ways in which the human resources of India can be developed.

- C. 1. Human resources, 2. number, 3. population.
D. 1. T, 2. F, 3. F.

HOCS:

In a small family the parents can give the necessary attention and facilities to their limited children.. They can fulfill their needs like good food, clothing, good education, medical care etc. sufficiently. Children receive more attention of parents resulting in higher achievements.

Chapter 14 : Our Agriculture

Practise These

- A. 1. d, 2. c, 3. c.
B. 1. The major seasons in India for growing crops are the Kharif season and the Rabi season.
2. Wheat is widely grown in Western Uttar Pradesh, Punjab, Haryana, Madhya Pradesh, Gujarat and Rajasthan.
3. The chief rice producing states are West Bengal, Punjab, Assam, Andhra Pradesh, Chhattisgarh, Bihar, Kerala and Tamil Nadu.
4. Tea is mainly grown in Assam, northern parts of West Bengal and the Nilgiri Hills in

South India.

- C. 1. Agriculture in India is the means of livelihood of almost 62% of the workforce in the country. Hence it called an agricultural country.
2. Cash crops are those crops which are cultivated primarily for sale in the market e.g. sugarcane, cotton, jute, rubber, etc.
 3. The extraordinary increase in the production of food grains in India after the mid 1960s is called the Green Revolution. The Green revolution has been possible in India because of the new technologies used in agriculture.

HOCS:

Uttar Pradesh is called the 'wheat bowl of India' because it is the largest producer of wheat.

Project Work :

1. Cinnamon
2. Bomboo
3. Jackfruit
4. Strawberry's seeds

Life skill time:

1. Rice
2. Wheat
3. Maize
4. Pulses

G K

1. Plants-o-Facts

- | | |
|------|------|
| 1. b | 2. c |
| 3. a | 4. b |
| 5. a | |

2. Plants Quiz?

- | | |
|------|------|
| 1. F | 2. T |
| 3. F | 4. T |
| 5. T | 6. T |
| 7. T | 8. T |

3. Important Days in India

- | | |
|-------|-------|
| 1. h | 2. l |
| 3. e | 4. j |
| 5. b | 6. i |
| 7. f | 8. a |
| 9. c | 10. g |
| 11. d | 12. k |

4. Famous Indian

- | | | |
|---|-------------|---------|
| A | 1. k | 2. f |
| | 3. l | 4. i |
| | 5. d | 6. c |
| | 7. j | 8. h |
| | 9. g | 10. a |
| | 11. e | 12. b |
| B | 1. Business | 2. Yoga |
| | 3. Sports | |

5. Famous Instrumentalists

1. L. Subramaniam, Violin
2. Zakir Hussain, Tabla

3. Ustad Amjad Ali Khan, Sarod
4. Hari Prasad Chaurasia, Flute
5. Shiv Kumar Sharma, Santoor
6. Vishwa Mohan Bhatt, Mohan Veena

6. Symbols of Sports

1. Swimming
2. Baseball
3. Wrestling
4. Archery
5. Judo
6. Table Tennis
7. Weightlifting
8. Football
9. Basketball

7. Books and Authors

1. Rudyard Kipling
2. Daniel Defoe,
3. Jonathan Swift,
4. R.L Stevenson,
5. A.A. Milne,
6. J. K Rowling,
7. Dr. Seuss,
8. Vishnu Sharma
9. Ved Vyas

8. Sound Words

1. patter,
2. jingle,
3. rustle,
4. beat,
5. chime,
6. ripples,
7. zoom,
8. thunder

9. Human Body Systems

- A. 1. Liver 2. Stomach 3. Large Intestine
- B. 1. Brain 2. Ribcage
- C. 1. Trachea 2. Lung
- D. 1. Heart 2. Artery 3. Vein

10. Medical Inventions

1. f 2. i 3. g 4. a 5. d 6. h 7. j 8. b 9. c 10. e

11. Women Achievers

1. Ann Bancroft,
2. Marie Curie,
3. Valentina Tereshkova,
4. Junko Tabei
5. Christina Koch,
6. Ada Lovelace,

12. Ten Tallest Buildings

1. Burj Khalifa,
2. Shanghai Tower,
3. Abraj Al-Bait Clock Tower,
4. Ping An Finance Centre
5. Lotte World Tower
6. One World Trade Centre
7. Guangzhou CTF Finance Centre,
8. Tianjin CTF Finance Centre
9. China Zun
10. Taipei 101

13. Who am I?

Attempt-yourself

14. Quotes on Values

Attempt-yourself

