

ENGLISH-4
SEMESTER

1

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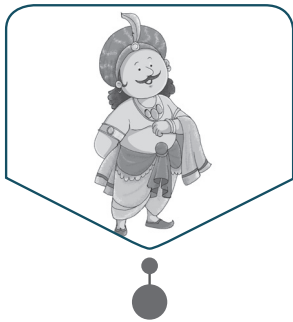
1. The King and the Fiery Dragon

ANSWERS

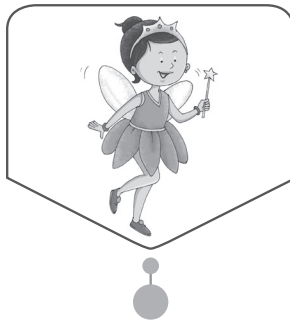
WARM UP

Stories always carry us to a different world. It is wonderful to read about strange characters. Look at the following characters and identify them. Take help from the box. You must have met them in the world of storybooks.

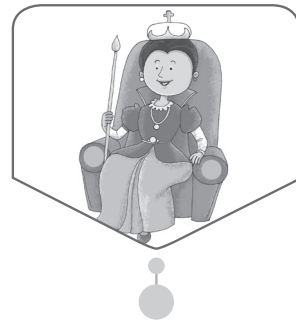
dragon king queen fairy demon elf



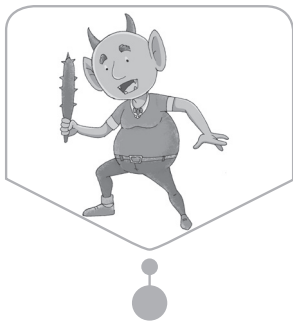
king



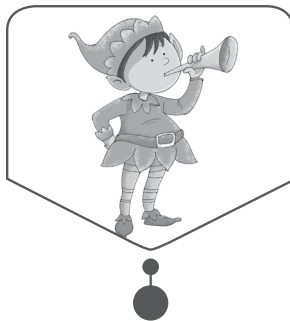
fairy



queen



demon



elf



dragon

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. The King went to the Dragon Mountain with

(a) the queen

(b) his son

(c) his daughter

(d) his soldiers

2. The Dragon protected the treasure for

(a) himself

(b) his family

(c) the King

(d) the people

3. People believed that the Dragon turned into a

(a) diamond

(b) rock

(c) fossil

(d) mineral

B. Write T (true) for the correct and F (false) for the incorrect statements.

1. The King went to the Dragon Mountain all alone.

F

2. The treasure was left unguarded on the mountain.

F

3. The Dragon was weak and old.

F

4. The Dragon's eyes were red with anger.

T

5. The King lost the battle and realised his mistake.

T

6. The King took the treasure from the Dragon for his queen and went to the palace.

F

7. The Dragon said that the treasure was meant for the welfare of the people, and not for the King or any other member of his family.

T

C. Answer the following questions.

1. Mention any three things being sold at the village fair.

Ans. Clay pots; wooden toys; baskets; vegetables; grain. [any three]

2. Describe what happened with the beating of the drums.

Ans. With the beating of the drums, there was song and dance and the villagers offered flowers to the rock.

3. Who asked the King to get the treasure?

Ans. The Queen asked the King to get the treasure.

4. What was the King told to do in order to get the treasure?

Ans. The Queen told the King to attack the Dragon and Fort and breakdown the door and the walls.

5. How did the Dragon defeat the King's soldiers?

Ans. The Dragon shot out flames and became ferocious in order to defeat the King's soldiers.

THINK AND ANSWER

D. Answer the following questions.

1. Who would you support—the King or the Dragon, and why?

Ans. I would support the Dragon because he was right in guarding the treasure for the welfare of the people.

2. What do you think the King might have decided to do after the battle was over?

Ans. The King might have used the treasure to make schools, hospitals, roads and other things of value to the people of his kingdom.

3. What would you have done if you were the King?

Ans. I would have asked the Queen to keep quiet and not be moved by her advice. I would have met the Dragon and tried to talk to him and find out what they could do with the treasure.

GRAMMAR IS FUN

E. Underline the abstract nouns in these sentences.

1. The boy was praised for his honesty and bravery.
2. I was filled with joy when I saw my result.
3. Rani Lakshmibai was a courageous woman.
4. The Taj Mahal is known for its beauty.
5. The King's strength and might could not help him win.

F. Some abstract nouns are given below. Fill in the boxes with their opposites.

1. Success

F	A	I	L	U	R	E
---	---	---	---	---	---	---
2. Love

H	A	T	R	E	D
---	---	---	---	---	---
3. Pleasure

P	A	I	N		
---	---	---	---	--	--
4. Happiness

S	O	R	R	O	W
---	---	---	---	---	---

G. Fill in the blanks with the possessive form of the nouns given in the brackets.

1. My father's car is parked in the garage. (father)
2. The children's picnic was cancelled. (children)
3. The babies' beds were all in a row in the nursery. (babies)
4. My mother's sandals are new. (mother)
5. The dancer's performance was superb. (dancer)

SPELL WELL

H. Fill in the missing letters and complete the following words. Take help of the words in the Help Box.

1. t r e a sur e

2. g u a rd e d

3. ca n n o n

4. f er o c i o us

5. s t r e n g t h

6. w e l f a r e

7. b e f r i e n d

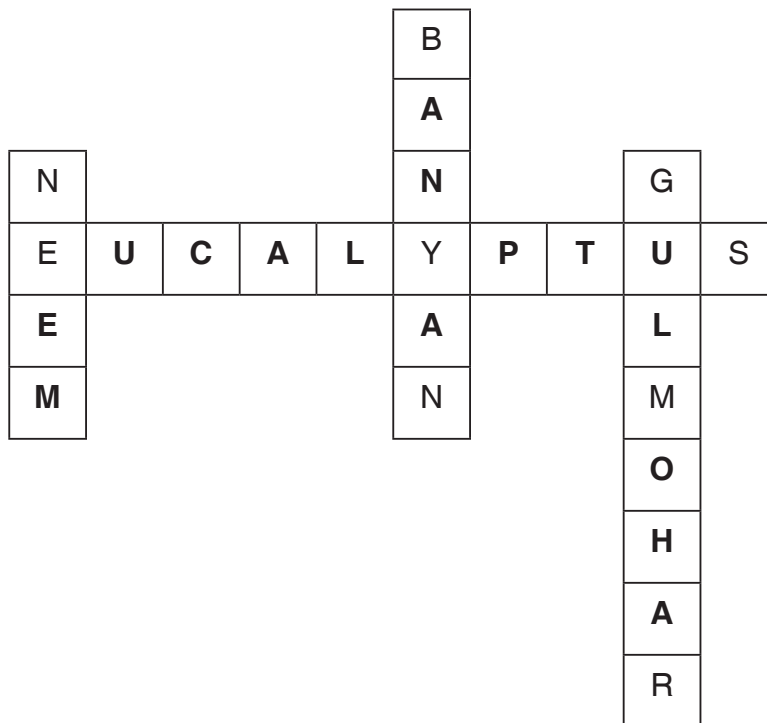
8. r e s e m b l e d

Help Box

cannon
resembled
strength
guarded
befriend
treasure
ferocious
welfare

WORD POWER

I. Solve this crossword puzzle about trees.



LET'S LISTEN

J. Your teacher will read the story from the listening text or you can listen to it on the Digital Board. Listen to it carefully. Now, answer the questions orally.

1. What was the name of the jackal?

Ans. The jackal's name was Gomaya.

2. What surprised the jackal?

Ans. The jackal was surprised by the sound of the drum beat.

3. Why did the jackal try to tear the drum top?

Ans. The jackal tried to tear the drum top to get at the animal that he thought was inside the

drum.

4. Who came to the jackal while he was beating the drum?

Ans. A leopard came to the jackal while he was beating the drum.

5. What did the jackal tell the leopard about the drum?

Ans. The jackal told the leopard that there was some small animal inside the drum and he could eat it if he tore the drum top.

6. Why did the leopard kill the jackal?

Ans. The leopard found no animal inside the drum and felt that the jackal had cheated him. So he killed the jackal.

7. Who do you think was cleverer, the jackal or the leopard?

Ans. The leopard turned out to be cleverer than the jackal.

WRITE WELL

N. Copy the following passage in your notebook. Then, keeping it as a model, write a small paragraph telling what you do at home after your return from school.

She tells me that when she returns home from school in the afternoon, she eats some food and then changes her clothes before doing her homework. She never eats anything in the school bus, while returning home. In fact, she never eats or drinks anything in school, except during the lunch break.

Ans. Do it yourself.

DICTIONARY SKILLS

P. Use a dictionary and find out the meanings of the underlined words in the given sentences. Write the meanings in the blanks.

1. The policeman found important evidence at the scene of theft.

evidence: Body of facts or information to indicate whether something is true or not.

2. Oral hygiene is important.

Oral: Related to the mouth.

3. He got name and fame once he became a successful actor.

fame: The state of being known or recognised because of one's achievements, skills, etc.

4. She regards her teacher as a guide.

regards: Consider or think in a specific way.

5. Hundreds paid tribute to the soldiers who died in the war.

tribute: Act that shows gratitude, respect or admiration.

ACTIVITY/PROJECT

Q. Imagine you have found a hidden treasure. Draw and colour it to show the things in the treasure. Discuss with your partner and make a list of any three ways in which you would use the treasure.

Ans. Do it yourself.

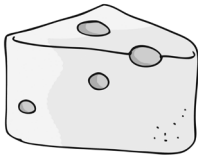
2. Triple Punishment

ANSWERS

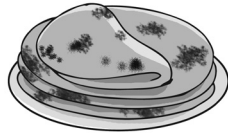
WARM UP

Write 'M' below the things made up of milk.

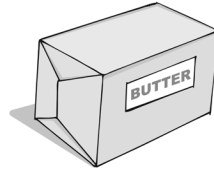
Cheese



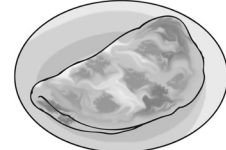
Chapati



Butter



Omelette



READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. Avik was

(a) greedy



(b) clever



(c) noble



2. Who started vomiting after taking the ghee?

(a) The king



(b) The youth



(c) Avik



3. Who learnt a lesson?

(a) The youth



(b) Avik



(c) The king



B. A few qualities are given below. Write them in the box that represents their character.

greedy just brave noble miser fool

The King	Avik	The Youth
Just	Greedy	Brave
Noble	Miser	
	Fool	

C. Answer the following questions.

1. Who was selling impure things?

Ans. Avik.

2. Why did Avik sell impure things?

Ans. Because he wanted to make more and more money.

3. Why did the king punish Avik?

Ans. The king punished Avik because he was selling adulterated ghee.

4. Why did Avik have to take all the three punishments?

Ans. Avik had to take all the three punishments because of his greed. He tried to save his gold by taking up the punishment of hundred lashes but in the end had to take all the three punishments.

THINK AND ANSWER

D. Do you agree adulteration of food is a serious crime? Why or why not?

Ans. It is a very serious crime because adulterated food is bad for the health of people.

Adulterated food causes many diseases and may even kill people.

GRAMMAR IS FUN

E. Underline the adjectives of quality in the given sentences.

1. We had to cross a deep river.

2. Tejas is a clever boy.

3. Avik was a greedy man.

4. Gopal is wearing a new shirt.

F. Write Q for adjectives of quantity and N for adjectives of number.

1. A year has twelve months.

N

2. The spider has eight legs.

N

3. Arjun has enough money to buy a video game.

Q

4. Give me some food.

Q

SPELL WELL

G. Fill in the blanks by choosing the correct spellings.

1. Avik used to sell **adulterated** ghee. (adultereted/adulterated)

2. Both of them had a big **argument**. (arguement/argument)

3. The king **immediately** sent his men to fetch Avik. (immediately/immedately)

4. Avik got **scared** and told the truth. (sacred/scared)

WORD POWER

H. Pick suitable suffixes from the box and add to the following words to form a new word.

ful less hood ly able

1. child hood/less

2. pain less/ful

3. joy ful/less

4. miser able/ly

5. regular ly

6. care ful/less

LET'S LISTEN

I. Your teacher will read the passage from the listening text or you can listen to it on the Digital Board. Listen to it carefully and answer the questions orally.

1. What was the wish of King Midas?

Ans. King Midas wished that whatever he touched should turn into gold.

2. Why could King Midas not eat or drink anything?

Ans. Because everything he touched turned into gold.

3. Why was King Midas punished?

Ans. He was punished because of his greed.

WRITE WELL

M. Has anybody ever cheated you? For example, you bought a packet of ten pencils and when you came home, you found that there were only eight pencils. How did you feel when you found out that you were cheated? Write a paragraph on this incident and your feelings about it.

Ans. Do it yourself.

ACTIVITY/PROJECT

N. Make a poster on the topic, 'Jago Grahak Jago'.

Ans. Do it yourself.

O. Find out what a consumer court is. What are its functions?

Ans. A consumer court is a special court that deals with cases regarding consumer disputes and complaints. It is set up to protect consumer rights. Its main function is to see that a customer is not exploited by the seller. If a consumer feels cheated, he/she can file a complaint against the seller.

3. Celebrating Earth Day

ANSWERS

WARM UP

Match the days with their dates.

Day	Date
1. World Environment Day	(a) 16 September
2. World Ozone Day	(b) 7 April
3. World Population Day	(c) 5 June
4. World Health Day	(d) 11 July

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. Who made the tree costume for Tarun?

(a) Mother

(b) Father

(c) Grandmother

2. How many boys came in his dream?

(a) Two

(b) Three

(c) Four

3. The three R's are

(a) Reduce, Relax and Recycle.

(b) Reduce, Resist and Recycle.

(c) Reduce, Reuse and Recycle.

B. Fill in the blanks with the correct word from the box.

trees plants Earth pollution polluting

1. The three boys were parts of the **Earth**.
2. Chemicals in the water have killed **plants**.
3. Air is so full of pollution because **trees** have been cut down.
4. The best way to help the Earth is to avoid **polluting** the Earth.
5. When we make something dirty, it is called **pollution**.

C. Answer the following questions.

1. What was killing Soil?

Ans. The people were killing Soil. The plastic bags and chemicals they used were harming it.

2. Why was Air unable to keep itself clean?

Ans. Air was unable to keep itself clean because trees have been cut down.

3. What was polluting Water?

Ans. Water was being polluted by waste thrown into it.

4. Why did Tarun think he could not help the three boys? Was he right?

Ans. Tarun thought that he could not help the three boys because he was only a small boy. No, he wasn't right, as his teacher explained to him.

5. Why did Tarun feel that celebrating Earth Day was of no use?

Ans. Tarun felt that celebrating Earth Day was of no use because he could not do anything to save the Earth.

6. Which three ways did his teacher suggest to stop pollution?

Ans. The teacher suggested Reduce, Reuse and Recycle to stop pollution.

7. What do the three R's mean?

Ans. The three R's mean Reduce, Reuse and Recycle.

THINK AND ANSWER

D. What are they doing? Match the columns.

1. Tarun uses his soft drink can to make a pencil stand.

2. Rohit uses a soft drink bottle to carry water to school.

3. Neena takes old newspapers to her art class to make things from paper.

4. Reema and her mother do not use the car when they go to the nearby market. They walk.

RECYCLE

REUSE

REUSE

REDUCE

Ans. Do it yourself.

GRAMMAR IS FUN

E. Tick (✓) the correct personal pronoun in each sentence.

1. Tarun put away he/his✓ costume carefully.

2. The ball hit me✓/I in the chest.

3. She✓/Her gave the book to me.

4. I/We[✓] are going for a picnic on Sunday.

F. Fill in the blanks with the possessive nouns.

theirs hers mine his ours

- | | |
|--|-----------------------|
| 1. This car belongs to my father. | It is <u>his</u> . |
| 2. This frock belongs to my sister. | It is <u>hers</u> . |
| 3. This phone belongs to Satish and Rahul. | It is <u>theirs</u> . |
| 4. The Earth belongs to each one of us. | It is <u>ours</u> . |

SPELL WELL

G. Circle the correct spellings.

- | | | | |
|----------------|--------------------|------------------|-------------|
| 1. pollushun | polution | <u>pollution</u> | polushun |
| 2. enviornment | <u>environment</u> | envirenment | invironment |
| 3. factori | fectori | <u>factory</u> | facteri |

WORD POWER

H. Hidden in this word grid are the names of things you can recycle or reuse. Colour them in different colours.

C	I	G	F	S	K	S	L	D	S	<u>C</u>	N
<u>P</u>	A	P	E	R	X	S	R	F	E	L	N
V	Y	R	B	I	<u>T</u>	A	W	C	N	O	Y
M	Y	B	S	A	<u>O</u>	L	K	A	I	T	Y
T	U	C	O	B	<u>Y</u>	G	J	W	Z	H	N
K	M	I	D	T	<u>S</u>	R	S	T	A	E	X
R	J	R	N	C	T	H	I	O	G	<u>S</u>	W
M	A	T	A	I	O	L	S	V	A	M	Q
C	U	N	P	E	M	R	E	E	M	R	A
F	S	I	S	P	T	U	S	S	X	Z	M
<u>P</u>	L	A	S	T	<u>I</u>	<u>C</u>	L	I	O	O	E
S	K	O	O	B	P	Z	O	A	U	O	B

LET'S LISTEN

I. Your teacher will read the statements from the listening text or you can listen to them on the Digital Board. You have to write 'Yes' if the activities mentioned are harmful to the environment and 'No' if the activities are not harmful to the environment.

1. No

2. Yes

3. Yes

4. No

5. Yes

WRITE WELL

M. Suggest three steps we should take to keep our environment pollution-free.

- Ans. 1. Grow more trees.
2. Use public transport.
3. Use manure instead of fertilisers.

SPELL WELL

N. Refer to the dictionary and find out the meanings of the following words.

1. sink 2. started 3. pollution 4. recycle

Make sentences of these words.

1. **sink:** To go below the surface, especially of a liquid.
2. **started:** To begin something.
3. **pollution:** Introducing something into the environment that is harmful to it.
4. **recycle:** Convert waste into something useful.

Students can make sentences on their own.

ACTIVITY/PROJECT

O. Write five slogans on the topic 'Save Earth'.

Ans. Do it yourself.

3. Trees are the Kindest Things I Know (Poem)

ANSWERS

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. According to the poet, trees are

(a) sad

(b) cruel

(c) kind

2. Who sleep under the shade of the trees?

(a) Men

(b) Cows

(c) Deer

3. The morning sun touches first

(a) rivers

(b) meadows

(c) trees

4. Who floats in the sky?

(a) The moon

(b) The stars

(c) Flies

B. Look at the picture and describe the scene.

Ans. Birds are sitting in the tree. Children are playing under the tree. A man is resting under the tree. A dog is running around. There is greenery all around and it is a beautiful scene.



PERIODIC TEST 1

READ AND ENJOY

A. Tick (✓) the correct answers.

1. When the children saw a new student, Naina, in the class, they came and

(a) troubled her

- (b) asked her questions
- (c) said 'hello' to her
2. Naina's classroom had
- (a) three windows (b) two windows (c) four windows
3. Naina's partner was a
- (a) selfish boy (b) friendly boy (c) bully
4. The lunch break was only for
- (a) ten minutes
- (b) fifteen minutes
- (c) twenty minutes
5. Naina felt happy because she
- (a) liked her new school
- (b) drank chilled juice
- (c) liked her classroom

B. Based on your understanding of the given passage, fill in the blanks with suitable words and complete this passage.

Naina was a new student in the class. Her teacher was tall and had a sweet smile. Naina's partner was a friendly and helpful boy. In the lunch break, she had a bottle of chilled juice. She went to the library after the break where a sturdy boy tried to trouble her. The librarian scolded him. The boy said 'sorry' to her. Later, Naina's teacher told her that she could come to her for any kind of help. Naina was happy.

WRITE WELL

C. Write five sentences on the steps you can take to make the Earth pollution free.

Ans. Do it yourself.

GRAMMAR IS FUN

D. Underline the abstract nouns in the following sentences.

1. The soldier was given an award for his bravery.
2. The Taj Mahal is known for its beauty.

E. Fill in the blanks with the possessive form of the nouns given in the brackets.

1. My sister's bag is in the room. (sister)
2. The woman's dress was very pretty. (woman)
3. The babies' toys are in the box. (babies)
4. The singer's performance was superb. (singer)

F. Underline the adjectives of quality in the sentences given below.

1. It is dangerous to cross the deep river.
2. Suhani is an intelligent girl.
3. The baby has curly hair.
4. Gopal bought a new shirt for his birthday.

LITERATURE

G. Answer the following questions.

1. What was the King told to do in order to get the treasure?

Ans. The King was told to attack the Dragon and Fort and break down the door and the walls.

2. How did the Dragon defeat the King's soldiers?

Ans. The Dragon shot out the flames and became ferocious in order to defeat the King's soldiers.

3. Why did Avik sell impure things?

Ans. Avik sold impure things because he wanted to make more and more money.

4. What was killing Soil?

Ans. The people of Earth were killing soil. They were throwing plastic bags which would sink into the soil. Because of this, soil couldn't breathe.

5. What do the three R's mean?

Ans. Reduce, Reuse and Recycle.

4. Birbal and the Barber

ANSWERS

WARM UP

Here are some brain teasers. Use your intelligence and write their answers.

1. Mithi's uncle, aunt and two cousins celebrate Christmas on the 25th of December, every year, but it always falls in summer. How is that possible?

Ans. In the Southern Hemisphere, the seasons are reversed. Hence, Christmas falls in summer, not winter.

2. Ria's mother has three children. One is called Isha, the second one is called Ruhi. What is the name of the third child?

Ans. The third one is Ria herself.

READ AND UNDERSTAND

A. Tick ✓) the correct answers.

1. The emperor's barber was jealous of

(a) the emperor's father

(b) Birbal

(c) all the courtiers

(d) the emperor

2. Birbal lived in hiding for

(a) a week

(b) a year

(c) six weeks

(d) six months

3. What was the message sent by Akbar's father through Birbal?

(a) To send Akbar's own barber

(b) To send Akbar's own bodyguard

(c) To send Akbar's own physician

(d) To send Akbar's own cook

4. After Birbal returned from heaven, the emperor sent

(a) his barber there

(b) Birbal back

(c) all his courtiers there

(d) nobody there again

B. Answer the following questions.

1. What were the two conditions that Birbal desired to be fulfilled before he left for heaven?

Ans. Birbal's two conditions were that he should be buried alive and that his grave should be close to his house.

2. How did Birbal save himself?

Ans. Birbal saved himself with his wit and his intelligence. He dug a ditch close to his house and a secret tunnel from the ditch to his house. When he was buried alive, he escaped through the tunnel and hid for six months.

3. Why did the emperor's father send Birbal back from heaven?

Ans. The Emperor's father gave Birbal special permission to return to earth.

4. What was the message sent by the emperor's father through Birbal?

Ans. The message sent through Birbal by the Emperor's father was there were few barbers in heaven. Therefore, he wanted the Emperor's own barber to be sent to heaven.

5. Why was the emperor's barber chosen to go to heaven?

Ans. The Emperor's barber was chosen due to Birbal's trick when he said that the Emperor's father had asked for this particular barber.

6. Answer with reference to the context.

Read the following sentence and answer the questions.

'I'm so glad to hear that my father is fine.'

- (a) Who said these words and to whom?

Ans. The Emperor said these words to Birbal.

- (b) Who brought the message?

Ans. Birbal brought the message.

- (c) Where was the 'father' being referred to in the given sentence?

Ans. The father was in heaven.

THINK AND ANSWER

C. Answer the following questions.

1. Do you think that wit and intellect help an individual to handle difficult and tricky situations well? What would you do if you were in the place of Birbal?

Ans. Yes. Using wit and intellect, one can overcome a tough situation. I too would wish to do what Birbal did.

2. What qualities of Birbal do you come to know from the story?

Ans. We come to know of Birbal's intelligence, wisdom, humour and presence of mind from this story.

GRAMMAR IS FUN

D. Circle the auxiliary verbs and underline the main verbs.

1. She has gone out.
2. Mohan was riding a bicycle.
3. She can dance very well.
4. John had collected a few gold coins.

E. Fill in the blanks with status verbs. Take help from the Help Box.

is am are were

1. I am a student.
2. We were tired after the journey.
3. The children are playing in the park.
4. Anita is a good dancer.

SPELL WELL

F. Fill in the blanks with 'ie' or 'ei' to form complete words.

1. bel i e ve
2. f i e ld
3. gr i e f
4. ach i e ve
5. sh i e d
6. dec e i ve

G. Put a circle around the incorrectly spelt words and rewrite the sentences correctly.

1. Give me your adress.

Ans. Give me your address.

2. The childern are playing in the park.

Ans. The children are playing in the park.

3. Have you recieved your gift?

Ans. Have you received your gift?

4. I am really greatful to you.

Ans. I am really grateful to you.

WORD POWER

H. Circle the odd one out. You may consult a dictionary.

- | | | | |
|-------------|--------------|----------|---------------|
| 1. happy | glad | cheerful | <u>gloomy</u> |
| 2. surprise | <u>swift</u> | amaze | wonder |

- | | | | |
|-----------|------------|----------|---------|
| 3. afraid | frightened | happy | fearful |
| 4. strong | fragile | powerful | sturdy |

LET'S LISTEN

I. Your teacher will read the passage from the listening text or you can listen to it on the Digital Board. Now, answer the questions orally.

1. What were the nine advisers of Emperor Akbar called?

Ans. The nine advisors of Emperor Akbar were called navaratnas.

2. In which state of India was Birbal born?

Ans. Birbal was born in the Sidhi district of Madhya Pradesh.

3. Which languages did Tenali Rama master?

Ans. Tenali Rama mastered Sanskrit and Telugu.

4. Name the king in whose court Tenali Rama was a poet.

Ans. Tenali Rama was a poet in the court of Raja Krishnadeva Raya.

5. Who were the members of the Ashtadiggajas?

Ans. Eight brilliant Telugu poets were the Ashtadiggajas.

6. What was special about the stories of Gopal Bhar?

Ans. Gopal Bhar's humour and social messages made his stories so special that they are retold in Bengal even today.

7. What was Gopal Bhar known for?

Ans. Gopal Bhar was known for his wisdom by which he outwitted other courtiers.



WRITE WELL

M. What do you think about the character of the barber? Write four sentences about him.

Ans. Any reasonable answer is acceptable. Following are some clues: Barber jealous of Birbal – cunning and sly – told Emperor Akbar the story about his father wanting a humorous person in heaven – wanted to get rid of Birbal – Birbal outwitted him – Barber ended up looking, foolish.

N. Imagine you have an appointment with Emperor Akbar for an interview. Complete the following interview by adding suitable words of your own.

Me: Your Highness, I am really honoured that you agreed to meet us. You are a great emperor.

Akbar: Oh! Thank you.

Me: As the emperor of this vast kingdom, what do you aim to do?

Akbar: I want my people to be happy and at peace.

Me: That's great. Do you take all your decisions yourself?



Akbar: **No, I consult my advisors. They are called the navaratnas and include Abul Fazal, Raja Todar Mal, Raja Man Singh and Birbal.**

Me: Who is your main adviser?

Akbar: **His name is** Birbal.

Me: Why do you rely **upon him**?

Akbar: He is **wise and dependable.**

He always gives me the **right advice.**

Me: No wonder, he is trusted by you. It has been nice talking **to you.** I thank you for sparing **your valuable time for us.**

Akbar: I also enjoyed talking to you. Thank you.

ACTIVITY/PROJECT

O. Work in groups of ten. Enact the story given in this unit. Select the main characters and let some students in the group act as ministers in Akbar's court.

You may add your own dialogues which complement the story.

Ans. Do it yourself.

P. Discuss the qualities of Birbal and give instances from the story to support your points.

Ans. Do it yourself.

4. You Can If You Think You Can (Poem)

ANSWERS

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. According to the poet, if you want to win, you should think that you must

(a) lose (b) win (c) be beaten

2. In the world, success begins with a fellow's

(a) will (b) thought (c) work

B. Answer the following questions.

1. What will happen if you think that you are beaten?

Ans. If you think that you are beaten, you will fail in any task you undertake.

2. Who, according to the poet, gets success?

Ans. According to the poet, a person is successful if he/she thinks that he/she is going to be successful and has a positive approach in life.

3. Who wins the battle of life?

Ans. He who thinks he can.

ACTIVITY/PROJECT

C. Write this poem in beautiful handwriting on a chart paper. Hang this chart in your room.

Ans. Do it yourself.

5. David and Goliath

ANSWERS

WARM UP

Fill in the blanks with the help of words from the box.

Guru Granth Sahib Koran Bible Srimad Bhagavad Gita

1. The holy book of the Hindus is the Srimad Bhagavad Gita.
2. The holy book of the Sikhs is the Guru Granth Sahib.
3. The holy book of the Muslims is the Koran.
4. The holy book of the Christians is the Bible.

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. David was born in
(a) Bethlehem (b) Jerusalem (c) France
2. Who sent David to his brothers?
(a) David's mother (b) David's father (c) The king
3. David tended
(a) sheep (b) cows (c) pigs
4. David wounded the giant with a/an
(a) sword (b) arrow (c) sling
5. The story has been taken from the
(a) Ramayana (b) Mahabharata (c) Bible

B. Write True or False.

1. One day the army of Bethlehem attacked the Philistines. False
2. David was the eldest brother. False
3. The army of Israel was not afraid of Goliath. False
4. At last the giant was killed. True

C. Answer the following questions.

1. What did David do at home?

Ans. He used to tend the sheep.

2. Why did David go to meet his brother?
Ans. David went to meet his brothers in order to give them food and find out how they were doing.
3. Why did David want to face the giant?
Ans. David wanted to face the giant because he had no fear.
4. How did he kill Goliath?
Ans. He hurled a pebble from his sling which hit Goliath on the forehead. Goliath fell down. David took out his sword and killed Goliath.

THINK AND ANSWER

D. Is physical strength or mental strength more important? Why?

Ans. Mental strength is more important because even if a person is strong physically and has a weak heart, he will tremble when any difficulty comes.

GRAMMAR FUN

E. Circle the subjects and underline the objects in these sentences.

1. David was a young shepherd.
Ans. (David) was a young shepherd.
2. Lions and tigers are wild animals.
Ans. (Lions and tigers) are wild animals.
3. I saw the thief running away.
Ans. (I) saw the thief running away.
4. Virender Sehwag hit a six.
Ans. (Virender Sehwag) hit a six.
5. Amit is riding his bicycle.
Ans. (Amit) is riding his bicycle.

F. Underline the verbs in these sentences. Write whether the verbs are transitive or intransitive.

- | | |
|---------------------------------|------------------------------|
| 1. Mini dances beautifully. | <u>dances (intransitive)</u> |
| 2. The man is selling balloons. | <u>selling (transitive)</u> |
| 3. Michael Jordan ran fast. | <u>ran (intransitive)</u> |
| 4. The cat chased the mouse. | <u>chased (transitive)</u> |
| 5. The film begins at 6 p.m. | <u>begins (intransitive)</u> |

SPELL WELL

G. Tick (✓) the correct spellings.

1. David was a shepherd✓/shephard.
2. King Saul belonged to Isreal/Israel✓.
3. Goliath's shield✓/sheild was very large.
4. David challenged✓/challanged Goliath.
5. David picked up five pebbles✓/pabbles.

WORD POWER

H. Add -ible or -able to these words.

- | | |
|------------------------|---------------------|
| 1. comfort <u>able</u> | 2. horri <u>ble</u> |
| 3. responsi <u>ble</u> | 4. terri <u>ble</u> |
| 5. dis <u>able</u> | 6. possi <u>ble</u> |

I. Fill in the blanks with the right word.

1. I ate a biscuit in the morning. (eight/ate)
2. The bear loves to eat honey. (bear/bare)
3. Yesterday, we went to a fair. (fair/fare)
4. The deer runs very fast. (dear/deer)

LET'S LISTEN

J. Your teacher will read the poem from the listening text or you can listen to it on the Digital Board. Listen to it carefully and answer these questions orally.

1. What should one do if one does not succeed?

Ans. One should try and try again.

2. What is the opposite of the word success?

Ans. Failure.

3. What does the poem teach us?

Ans. It teaches us to try even if we fail. We are bound to succeed in the end.

WRITE WELL

N. Write about the three qualities of David mentioned in the story.

1. David was fearless.
2. He loved his country very much.
3. He was obedient.

DICTIONARY SKILLS

O. Refer to a dictionary and find the meanings of the following words.

1. flock 2. hush 3. sling 4. target

Make sentences of these words.

- Ans.** 1. flock: A number of birds or other animals of one kind.
2. hush: Make someone quiet or stop talking; silence.
3. sling: A simple weapon in the form of a strap or loop, used to hurl stones.
4. target: Something or someone selected as the aim of an attack.

Students can make sentences on their own.

ACTIVITY/PROJECT

P. Find out what Ten Commandments given in the Bible are.

Write them neatly on a chart paper. Display the chart in your class.

Ans. Do it yourself.

6. The Humble Minister

ANSWERS

WARM UP

Test your knowledge about the tiger. Tick (✓) the sentences that are true.

1. Tigers are from the same family as cats.

2. Tigers are vegetarians.

3. Tigers are domestic animals.

4. Tigers are endangered animals.

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. What was the poor man doing in the forest?

(a) Hunting animals

(b) Gathering wood

(c) Playing with a tiger

2. Which animal attacked the king?

(a) Tiger

(b) Bear

(c) Lion

3. Why was the king grateful to the poor man?

(a) He saved the king's life

(b) He called the king's bodyguards

(c) He killed the tiger

B. Fill in the blanks with correct words from the box.

king ashamed chief minister secret clothes

1. The king made the poor man chief minister.

2. The room had a **secret** entrance.
3. The chief minister opened a wooden box and took out a bundle of **clothes**.
4. As he was about to leave the room, the **king** stood up.
5. The king felt **ashamed** for suspecting such a humble and honest man.

C. Answer these questions.

1. Why did the king go to the forest?

Ans. The king went to the forest for hunting.

2. What was the poor man doing in the forest?

Ans. The poor man was gathering wood in the forest.

3. How did the king reward the man who had saved his life?

Ans. The king took the man to his palace and made him a minister.

4. Why did the chief minister put on his old clothes before praying?

Ans. He put on his old clothes before praying because he did not want to forget that he was once a poor man.

5. What do you learn from this story?

Ans. We learn that we should never become arrogant and forget our old days.

THINK AND ANSWER

D. In the olden days, kings used to do hunting. Was hunting a good thing? Why or why not?

Ans. Hunting is a bad thing. To kill animals for fun is a very bad thing. It is because of hunting that many animals have become extinct.

GRAMMAR IS FUN

E. Fill in the blanks with the present perfect tense form of the verbs in brackets.

1. It **has stopped** raining. (stop)
2. Mohit **has lived** in Ambala for five years. (live)
3. She **has bought** a new dress. (buy)
4. I **have** made tea, let's drink it. (make)
5. She **has** just **completed** her painting. (complete)

F. Fill in the blanks with verbs in the past perfect tense and complete the sentences.

1. Mohit **had reached** (reach) the station before the train arrived.
2. Pradeep **had read** (read) the book before he returned it to me.
3. I **had finished** (finish) my homework before father returned from office.
4. Mini **had given** medicines to grandmother before she went to sleep. (give)

SPELL WELL

G. Rearrange these letters to spell the words correctly.

- | | | | |
|------------|-----------------|------------|----------------|
| 1. nimirts | <u>minister</u> | 2. lacepa | <u>palace</u> |
| 3. gninrom | <u>morning</u> | 4. roftune | <u>fortune</u> |
| 5. nohtse | <u>honest</u> | 6. muhleab | <u>humble</u> |

WORD POWER

H. Match the movements and sounds with the animals. One has been done for you.

Movement	Animal	Sound
1. leap	duck	roar
2. swim	tiger	quack
3. slither	horse	hiss
4. gallop	snake	neigh

I. Circle the odd one out in each set of words.

- | | | | |
|-----------|------------|--------------|----------|
| 1. lion | <u>cow</u> | tiger | cheetah |
| 2. gold | silver | <u>mud</u> | diamond |
| 3. honest | humble | <u>liar</u> | truthful |
| 4. king | throne | <u>guard</u> | palace |

LET'S LISTEN

J. Your teacher will read about some good and bad qualities from the listening text or you can listen to them on the Digital Board. You have to write 'G' for good qualities and 'B' for bad qualities.

- | | | |
|-------------|-------------|-------------|
| 1. <u>G</u> | 2. <u>B</u> | 3. <u>B</u> |
| 4. <u>B</u> | 5. <u>G</u> | 6. <u>B</u> |

SPEAK AND EXPRESS

M. One should lead a humble and simple life. Do you agree? Express your thoughts on this to your partner.

Ans. Do it yourself.

WRITE WELL

N. Use these words in sentences of your own.

- Humble _____
- Secret _____

- 3. Treasure _____
- 4. Grateful _____
- 5. Special _____

Ans. Do it yourself.

ACTIVITY/PROJECT

O. Collect five quotations related to 'humility'.

Ans. Do it yourself.

6. How the Little Kite Learned to Fly (Poem)

ANSWERS

READ AND UNDERSTAND

A. Tick (✓) the correct answers.

1. "I never can do it."

Who spoke the above line?

(a) A kite flyer

(b) A big kite

(c) A small kite

2. What was the small kite afraid of?

(a) It was small

(b) It might fall

(c) It could lose the race

B. Answer the following questions.

1. What did the big kite say to the small kite?

Ans. The big kite told the small kite to try to fly.

2. When was the little kite thrilled with pride?

Ans. The little kite was thrilled with pride because it was flying side by side with the big kite.

3. How did the small kite succeed?

Ans. The small kite succeeded because it overcame its fear and tried.

ACTIVITY/PROJECT

C. Imagine yourself to be a small kite and a friend of yours the big kite. Enact the conversation in the class. You can interchange the roles.

Ans. Do it yourself.

D. Your younger brother is afraid of swimming. Write a letter encouraging him. Encourage him to practise swimming under the guidance of an expert person.

Ans. 12, Arjuna Apartments,

Lajpat Nagar,

New Delhi

Dear Raju,

I have learnt that you want to learn swimming but are not able to gather courage to learn it.

Dear Raju, remember, courage is the first thing and all other things follow it.

If you learn swimming under a competent coach, it will become easy like a child's play. Hence, don't be afraid and start learning swimming. The day is not far when people will hail you as an expert swimmer.

Your loving brother,

Murli.

LIFE SKILLS 1

A. Make a Thank You card for your mother or any person to whom you want to show your appreciation. It could be a parent, friend, grandparents, or anyone else. Inside the card add this line:

Dear Mom

You are the best because you are so selfless and loving. I am truly blessed that you are my mother. May God grant you a long and healthy life.

B. Read the sentences. Write 'This is me' if you think this sounds like you. Write 'This is not me' if it does not sound like you.

1. When I go to a birthday party, I push everyone to get to the food table.

2. I wish my teachers 'Good Morning'.

3. I do not say 'please' and 'thank you' to people who help me.

4. If my mother is busy and not paying attention to me, I start shouting.

5. If my grandparents are resting, I do not watch television.

6. If my parents are busy, I say 'excuse me' before disturbing them.

7. I speak softly when the teacher is around. At other times, I shout.

8. If my younger sister/brother picks up my toy, I grab it back from him/her.

Ans. Do it yourself.

PERIODIC TEST 2

READ AND ENJOY

A. Tick (✓) the correct answers.

1. James was born in a

(a) farmer's family

- (b) businessman's family
- (c) fisherman's family
2. He went out every day to
- (a) play with his friends
- (b) catch fish
- (c) work in the fields
3. One day, James caught
- (a) a big fish (b) a shark (c) a small fish
4. The fish said that if James left her back in the sea, she would take away all his
- (a) happiness (b) worries (c) wealth
5. James's mother had been sick for the past
- (a) three months (b) two months (c) six months

B. The following sentences are not in sequence. Number them correctly and write their numbers in the boxes provided.

- | | |
|--|---------------------------------|
| 1. The fish begged James to leave her back into the sea. | <input type="text" value="4"/> |
| 2. His mother suddenly recovered from illness. | <input type="text" value="8"/> |
| 3. James was a fisherman's son. | <input type="text" value="1"/> |
| 4. His mother had been sick for the past three months. | <input type="text" value="7"/> |
| 5. James caught a big fish one day. | <input type="text" value="3"/> |
| 6. James had pity and threw the fish back into the sea. | <input type="text" value="6"/> |
| 7. James's mother thought that it was a mere coincidence. | <input type="text" value="10"/> |
| 8. He went out in a boat to catch fish every day. | <input type="text" value="2"/> |
| 9. The fish said that her children were very small and would cry. | <input type="text" value="5"/> |
| 10. James knew that she had recovered because of the blessing of the fish. | <input type="text" value="9"/> |

WRITING

- C. You are playing in the park and find a 100-rupee note lying on the ground. What would you do? Write a small paragraph of about five lines as to what you would do and why.**

Ans. Do it yourself.

GRAMMAR IS FUN

D. Circle the auxiliary verbs and underline the main verbs in the following sentences.

- 1. It was a cold night.
- 2. She can play the flute very well.

E. Fill in the blanks with the correct status verbs. Take help from the box.

is am are were

- 1. I am a cricket player.
- 2. We were playing in the park.
- 3. The children are doing their homework.
- 4. Anita is a good cook.

F. Underline the possessive pronouns in the following sentences.

- 1. This pen is mine.
- 2. The book I gave you is hers.

G. Fill in the blanks with the present perfect tense form of the verbs in the brackets.

- 1. Mohini has bought a new dress (buy).
- 2. She has just completed her painting (complete).

LITERATURE

H. Answer the following questions.

- 1. Mention any three things that were sold at the village fair.

Ans. Clay pots; wooden toys; baskets; vegetables; gram. (any three)

- 2. Why did Tarun feel that celebrating Earth Day was of no use?

Ans. Tarun felt that celebrating Earth Day was of no use because he could not do anything.

- 3. What were the two conditions that Birbal desired to be fulfilled before he left for heaven?

Ans. Birbal's two conditions were that he should be buried alive and that he should be close to his house.

4. Why did David want to face the giant?

Ans. David wanted to face the giant because he was brave and had no fear of the giant.

5. Why did the chief minister put on his old clothes before praying?

Ans. He put on his old clothes before praying because he did not want to forget that he was once a poor man.

GRAMMAR WORKSHEETS

GRAMMAR WORKSHEET I

The King and the Fiery Dragon

Abstract Nouns

A. Underline the abstract nouns.

1. Saint Teresa was known for her kindness.
2. Sincerity is a great virtue.
3. All men want happiness.
4. Rani Lakshmibai's bravery was praised even by the British.
5. A thing of beauty is a joy for ever.
6. The strength of the boxer helped him defeat the opponent.
7. I have sweet memories of my childhood.
8. I admire his honesty.
9. The child could not speak because of fear.
10. Gandhiji believed in truth.

B. Tick (✓) the correct abstract nouns and complete the sentence.

1. A wise man is respected for his (beauty/wisdom✓).
2. A prisoner longs for (freedom✓/courage).
3. The little boy showed great (loneliness/courage✓) by catching the thief.
4. My mother was liked by all for her (generosity✓/joy).
5. I gave a special card to my mother on Mother's Day to express my (love✓/health) for her.

C. Insert an apostrophe where required.

1. The giants voice frightened the children.

Ans. The giant's voice frightened the children.

2. The childrens toys are in the basket.

Ans. The children's toys are in the basket.

3. Mini's mother will bring the clothes.

Ans. Mini's mother will bring the clothes.

4. The woman's hat flew off due to wind.

Ans. The woman's hat flew off due to wind.

5. John's shop is in Connaught Place.

Ans. John's shop is in Connaught Place.

6. The boy's eyes were blue.

Ans. The boy's/boys' eyes were blue.

7. The birds' nests are broken.

Ans. The bird's/birds' nests are broken.

8. The man's bag was heavy.

Ans. The man's bag was heavy.

9. The dog's bark frightened the thief away.

Ans. The dog's bark frightened the thief away.

10. The girls' uniforms can be brought from the school.

Ans. The girls' uniforms can be brought from the school.

D. Rewrite the phrases using the possessive form of the noun.

1. The paintings of the artist

artist's paintings

2. The neck of the giraffe

giraffe's neck

3. The feathers of the birds

birds' feathers

4. The bark of the dog

dog's bark

5. The courage of the soldiers

soldiers' courage

6. The mane of the lion

lion's mane

7. The books of the student

student's books

8. The frock of the girl

girl's frock

9. The misery of the beggar

beggar's misery

10. The decision of the jury

jury's decision

GRAMMAR WORKSHEET 2

Triple Punishment

Adjectives of Quality

A. Underline the adjectives of quality in the given sentences.

1. Shivaji was a brave king.

2. We should eat healthy food.

3. Prakash is an honest man.

4. New Delhi is a big city.

5. The lotus is a beautiful flower.
6. It was a cloudy day.
7. Sohani likes to eat crisp cookies.
8. Ritu is wearing a lovely gown.
9. It was a rainy day.
10. Raman is an intelligent boy.

B. Write 'Q' for adjectives of quantity and 'N' for adjectives of number.

1. A week has seven days. N
2. He ate the whole cake. Q
3. He wants some money. Q
4. January is the first month of the year. N
5. There is a little food in the house. Q
6. She was absent from school for two days. N
7. There is enough juice in the jug. Q
8. Can I have some water, please? Q
9. There are three pencils in the drawer. N
10. The third girl in the queue is my sister. N

C. Underline the demonstrative adjectives in the given sentences.

1. We are selling this TV.
2. Who brought those gifts?
3. These boys are intelligent.
4. That car belongs to my father.
5. Those houses were built last year.
6. These kittens are very cute.
7. We like to buy this house.
8. Those apples are sweet and crunchy.
9. This park is near our school.
10. Let us go to that shop.

GRAMMAR WORKSHEET 3

Celebrating Earth Day

Personal Pronouns

A. Fill in the blanks with appropriate personal pronouns from the brackets.

1. Rohan is my friend. He lives near my house. (She/He)

2. I have a pet dog. I love to play with it. (it/he)
3. John is my neighbour. He is a famous football player. (He/She)
4. Who is your best friend? (you/your)
5. Avni lost the race because she was injured. (he/she)
6. Do you think they will win the match? (they/them)
7. The dog played with the ball and hid it under the sofa. (it/she)
8. Rina is my classmate. She is the head girl of the school. (We/She)
9. We should read good books. (We/Them)
10. I will go to the market today. (I/Me)

B. Underline the possessive pronouns in these sentences.

1. The kittens are theirs.
2. Please find out if the purse is hers.
3. The red toy is mine.
4. These toys are yours.
5. The shoes are his.
6. The pencils are ours.

C. Complete the following sentences with appropriate possessive pronouns from the box.

theirs ours hers

1. This town is ours. We should keep it clean.
2. I found this pen under the desk of Shashi. I think it is hers.
3. The children have kept the bags in the cupboard. They are theirs.

GRAMMAR WORKSHEET 4

Birbal and the Barber

Main and Auxillary Verbs

A. Read the following sentences and circle the helping (auxiliary) verbs. Underline the main verbs.

1. Mukul (is) making a painting.
2. They (have) taken the thief to the police station.
3. I (am) eating a biscuit.
4. We (were) watching the match.
5. John (was) lighting a candle at the church.

6. Some people were sitting on the grass.
7. She has gone out.

B. Fill in the blanks using appropriate helping verbs.

1. Why are you losing your temper without knowing the facts of the case?
2. Were you wait for the school bus, or were you wait for your father to come?
3. She will be leaving for Hyderabad tomorrow to attend her cousin's marriage.
4. She will definitely help you when you approach her with a request.

Status Verbs

C. Fill in the blanks with appropriate verbs. Take help from the box.

is are am were was

1. I am the captain of my school football team.
2. She is a doctor.
3. The summer vacations are full of fun!
4. He was punished for his misbehaviour.
5. We were happy to see our old school friends.

GRAMMAR WORKSHEET 5

David and Goliath

Subject – verb agreement

A. Tick (✓) the correct verb form.

1. Dogs (are✓/is) barking loudly.
2. I (have✓/has) a younger sister.
3. They (have✓/has) bought a new car.
4. The boys (is/are✓) tired.
5. He (has✓/have) stood first in the class.

B. The subjects in these sentences do not agree with their verbs. Rewrite each sentence making necessary changes, keeping in mind the rules of subject-verb agreement.

1. Reema write for the school magazine.

Ans. Reema writes for the school magazine.

2. Rahul and Gulshan has gone for a movie.

Ans. Rahul and Gulshan have gone for a movie.

3. The principal are in the office.

Ans. The principal is in the office.

4. You is the most talented dancer in this competition.

Ans. You are the most talented dancer in this competition.

5. I does yoga for an hour every day.

Ans. I do yoga for an hour every day.

C. Rewrite the following statements replacing the underlined words with the words given in the brackets. Make other changes wherever required. An example has been provided to help you.

Example.

I participate in all the co-curricular activities organised by the school. (my brother)

My brother participates in all the co-curricular activities organised by the school.

1. I stay near the school. (my friend)

My friend stays near the school.

2. My mother and her sister work in the Reserve Bank of India. (her cousin)

Her cousin works in the Reserve Bank of India.

3. We go for rock climbing in the autumn break. (our English teacher)

Our English teacher goes for rock climbing in the autumn break.

4. She plays hockey for team India. (two of my father's friends)

Two of my father's friends play hockey for team India.

5. John leads the choir in the church on Christmas. (our schoolchildren)

Our schoolchildren lead the choir in the church for Christmas.

D. Read the following sentences and underline the verbs. Write them in the appropriate boxes.

1. I boarded the bus to the Town Hall.

2. Many tourists were sunbathing.

3. Some tourists are riding water scooters.

4. My friends are parasailing.

5. The children are laughing.

6. Rohan bought some toys from the toy shop.

7. Grandpa is narrating a story.

8. Sarika is buying keychains.

Transitive Verbs	Intransitive Verbs
boarded	were sunbathing
are riding	are parasailing
bought	are laughing
is narrating	
is buying	

GRAMMAR WORKSHEET 6

The Humble Minister

Present Perfect Tense

A. Use the suitable form of verbs given in the brackets to complete the following sentences in the present perfect tense.

1. Ruskin Bond **has written** (write) this story.
2. Siddharth **has gone** (go) out.
3. He **has eaten** (eat) his dinner.
4. She **has left** (leave) for the railway station.
5. Mother **has opened** (open) the door for the guest.
6. The train **has arrived** (arrive).
7. The boys **have learnt** (learn) their lessons.
8. I **have read** (read) thirty books this year.
9. Mandira **has seen** (see) the film.
10. I **have lived** (live) in Pune for ten years.

Past Perfect Tense

- B. Use the verbs given in the box in the past perfect tense to complete the following sentences.**

had finished, had reached, had left, had bought,
had stopped, had lived, had never seen

1. When I met my mother in the market, she **had bought** all that she wanted.
2. She **had finished** her homework before she went to bed.
3. When I reached the park, my friends **had left**.
4. I **had reached** the school before the bell rang.
5. The rain **had stopped** before you arrived.
6. I **had lived** in Delhi for eight years before I saw the Qutub Minar.
7. Mira **had never seen** the sea till she went to Goa.

- C. Use the suitable form of the verbs given in the brackets to complete the following sentences in the past perfect tense.**

1. Dipti **had written** (write) a story before she went to bed.
2. The aeroplane **had left** (leave) by the time and reached the airport.
3. She **had met** (meet) the teacher before leaving the school.
4. You **had left** (leave) the party before I came.
5. She **had studied** (study) for the test by the time we came back from the movie.

MATHEMATICS-4

SEMESTER

1

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1. Numbers (5–6 digits)

ANSWERS

LET US RECALL

- A. Write the numeral for 7 thousands, 9 hundreds, 2 tens and 7 ones: 7927
- B. Write 4397 in thousands, hundreds, tens and ones: 4 thousands, 3 hundreds, 9 tens and 7 ones
- C. Write the numeral for $8 \times 1000 + 3 \times 100 + 6 \times 10 + 4$: 8364
- D. Write 4841 in expanded form: $4 \times 1000 + 8 \times 100 + 4 \times 10 + 1 \times 1$
- E. Write the numeral for nine thousand nine hundred and thirty one: 9931
- F. Write the number name for 7675: Seven thousand six hundred and seventy five
- G. Write the predecessor of 6567: 6568
- H. Write the successor of 2351: 2350
- I. Write the next two numbers for 8923: 8924, 8925
- J. Write the two numbers that come just before 9851: 9849, 9850
- K. Give the next three numbers for 6310: 6311, 6312, 6313
- L. Give three numbers that come just before 5002: 4999, 5000, 5001
- M. Give two numbers between 5299 and 5302. 5300, 5301
- N. Give three numbers between 7267 and 7271. 7268, 7269, 7270

O. Fill in the boxes.

The number with 2 at hundreds place, 3 at ones place, 6 at thousands place and 8 at tens place is

Th	H	T	O
6	2	8	3

P. Fill in the boxes.

1. Place value of 6 in 9863 is .

2. Place value of 9 in 9387 is .

Q. Tick (✓) the greater in each of the following pairs.

1. 7699; 9801 ✓

2. 4902; 4907 ✓

R. Tick (✓) the smaller in each of the following pairs.

1. 5263 ✓; 6200

2. 9432; 9187 ✓

S. Arrange the following in ascending order.

\Rightarrow

T. Arrange the following in descending order.

\Rightarrow

U. Make the largest and the smallest numbers using each digit only once.

Digits	Largest Number	Smallest Number
4, 5, 3, 2	5432	2345

V. Make the largest and the smallest numbers of 4-digits using the given digits. You may repeat the digits.

Digits	Largest Number	Smallest Number
5, 2, 6, 3	6666	2222

W. Make the largest and the smallest numbers of 4-digits using the digits given below. Repetition of digits is not allowed.

Digits	Largest Number	Smallest Number
5, 8, 1, 7, 0	8751	1057

X. Fill in the blanks.

- 8267 rounded to nearest tens is 8270.
- 2753 rounded to nearest hundreds is 2800.
- 7895 rounded to nearest thousands is 8000.

EXERCISE 1.1

A. Write the following in ten thousands, thousands, hundreds, tens and ones.

- 47426
- 73491
- 23874
- 87236

- Ans.
- 4 ten thousands, 7 thousands, 4 hundreds, 2 tens and 6 ones
 - 7 ten thousands, 3 thousands, 4 hundreds, 9 tens and 1 ones
 - 2 ten thousands, 3 thousands, 8 hundreds, 7 tens and 4 ones
 - 8 ten thousands, 7 thousands, 2 hundreds, 3 tens and 6 ones

B. Write the numeral for each of these:

- 2 ten thousands, 2 thousands, 8 hundreds, 4 tens and 3 ones 22843
- 5 ten thousands, 3 thousands, 0 hundreds, 3 tens and 2 ones 53032
- 7 ten thousands, 4 thousands, 8 hundreds, 4 tens and 4 ones 74844
- 9 ten thousands, 1 thousand, 2 hundreds, 3 tens and 1 one 91231

C. Write the following in lakhs, ten thousands, thousands, hundreds, tens and ones.

- 686234
- 598234
- 893421
- 890562

- Ans.
- 6 lakhs, 8 ten thousands, 6 thousands, 2 hundreds, 3 tens and 4 ones
 - 5 lakhs, 9 ten thousands, 8 thousands, 2 hundreds, 3 tens and 4 ones
 - 8 lakhs, 9 ten thousands, 3 thousands, 4 hundreds, 2 tens and 1 ones
 - 8 lakhs, 9 ten thousands, 0 thousands, 5 hundreds, 6 tens and 2 ones

D. Write the numeral for each of these:

1. 2 lakhs, 5 ten thousands, 1 thousand, 9 hundreds, 4 tens and 1 one 251941
2. 3 lakhs, 4 ten thousands, 0 thousands, 0 hundreds, 9 tens and 2 ones 340092
3. 6 lakhs, 2 ten thousands, 4 thousands, 2 hundreds, 4 tens and 9 ones 624249
4. 9 lakhs, 3 ten thousands, 7 thousands, 5 hundreds, 2 tens and 1 one 937521

EXERCISE 1.2

A. Write the place value of each digit of the following numbers.

1. 24256
2. 36078
3. 455905
4. 690234

- Ans.**
1. Place value of 6 is 6; Place value of 5 is 50; Place value of 2 is 200; Place value of 4 is 4000; Place value of 2 is 20000
 2. Place value of 8 is 8; Place value of 7 is 70; Place value of 0 is 0; Place value of 6 is 6000; Place value of 3 is 30000
 3. Place value of 5 is 5; Place value of 0 is 0; Place value of 9 is 900; Place value of 5 is 5000; Place value of 5 is 50000; Place value of 4 is 400000
 4. Place value of 4 is 4; Place value of 3 is 30; Place value of 2 is 200; Place value of 0 is 0; Place value of 9 is 90000; Place value of 6 is 600000

B. Write the following numbers in place value chart.

1. 35252
2. 63408
3. 863975
4. 738723

Ans.

S.No.	L	TTh	Th	H	T	O
1.		3	5	2	5	2
2.		6	3	4	0	8
3.	8	6	3	9	7	5
4.	7	3	8	7	2	3

C. Write the number name for each of the following:

1. 46375
2. 73587
3. 362718
4. 962734

- Ans.**
1. Forty six thousand three hundred seventy five
 2. Seventy three thousand five hundred eighty seven
 3. Three lakh sixty two thousand seven hundred eighteen
 4. Nine lakh sixty two thousand seven hundred thirty four

D. Write the numeral for each of the following:

1. Thirty two thousand eight hundred and sixty nine

Ans. 32869

2. Forty nine thousand nine hundred and thirty seven

Ans. 49937

3. Seven lakh forty nine thousand seven hundred and ninety five

Ans. 749795

4. Six lakh thirty thousand nine hundred five

Ans. 630905

E. Write the following in expanded form:

1. 24,256

2. 46,078

3. 6,45,905

4. 8,34,571

Ans. 1. $20000 + 4000 + 200 + 50 + 6$

2. $40000 + 6000 + 0 + 70 + 8$

3. $600000 + 40000 + 5000 + 900 + 0 + 5$

4. $800000 + 30000 + 4000 + 500 + 70 + 1$

F. Write the numeral for each of these:

1. $70000 + 7000 + 100 + 90 + 1$

Ans. 77191

2. $50000 + 2000 + 300 + 70 + 9$

Ans. 52379

3. $500000 + 40000 + 5000 + 500 + 50 + 3$

Ans. 545553

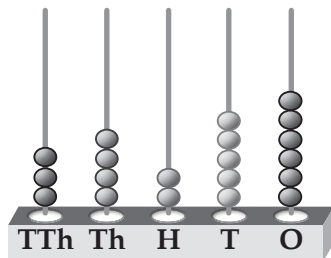
4. $800000 + 20000 + 5000 + 100 + 80 + 6$

Ans. 825186

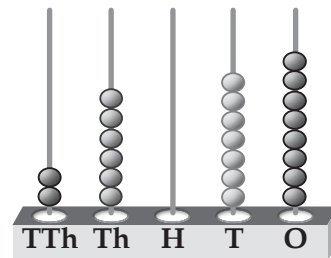
EXERCISE 1.3

A. Draw a spike abacus on your notebook and represent the following on them.

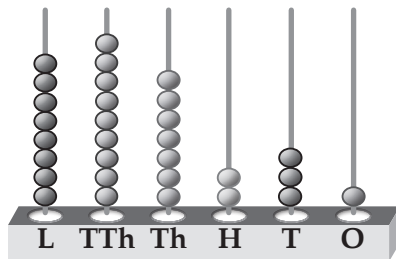
1. 34,256



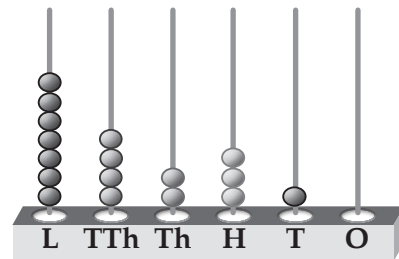
2. 26,078



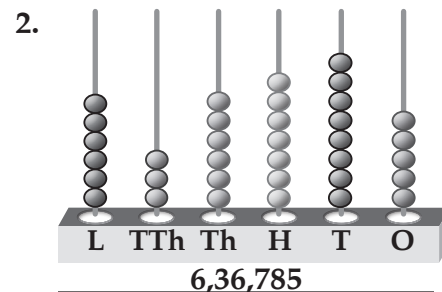
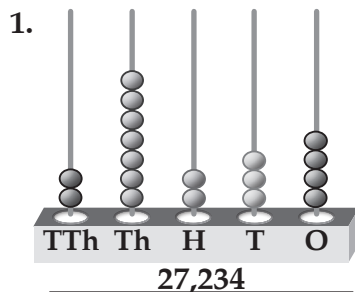
3. 8,97,231

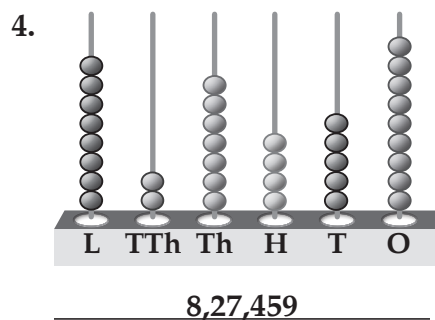
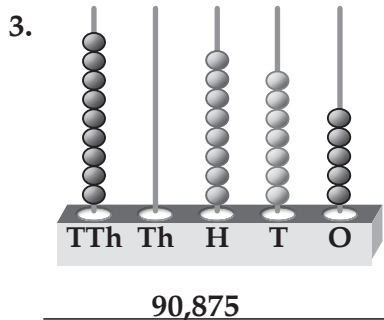


4. 7,42,310



B. Write the numeral represented on the abacus.





EXERCISE 1.4

A. Write the predecessor of each of the following:

1. 53,129 2. 70,513 3. 4,30,900 4. 9,08,345

- Ans.** 1. 53,130 2. 70,514 3. 4,30,901 4. 9,08,346

B. Write the successor of each of the following:

1. 31,521 2. 63,752 3. 4,50,799 4. 7,83,409

- Ans.** 1. 31,520 2. 63,751 3. 4,50,798 4. 7,83,408

C. Write the next two numbers for each of the following:

1. 41,072 2. 62,302 3. 8,92,399 4. 2,89,500

- Ans.** 1. 41,073, 41,074 2. 62,303; 62,304 3. 8,92,400; 8,92,401 5. 2,89,501; 2,89,502

D. Write the two numbers that come just before each of the following:

1. 61,035 2. 2,72,102

- Ans.** 1. 61,033; 61,034 2. 2,72,100; 2,72,101

E. Write the next three numbers for each of these:

1. 84,251 2. 4,43,300

- Ans.** 1. 84,252; 84,253; 84,254 2. 4,43,301; 4,43,302; 4,43,303

F. Write three numbers that come just before each of these:

1. 89,121 2. 7,64,501

- Ans.** 1. 89,118; 89,119; 89,120 2. 7,64,498; 7,64,499; 7,64,500

G. Write two numbers which comes in between

1. 84,192 and 84,195 2. 7,72,296 and 7,72,299

- Ans.** 1. 84,193; 84,194 2. 7,72,297; 7,72,298

H. Write three numbers that comes in between

1. 35,274 and 35,278 2. 6,47,357 and 6,47,361

- Ans.** 1. 35,275; 35,276; 35,277 2. 6,47,358; 6,47,359; 6,47,360

EXERCISE 1.5

A. Which is the smaller number in each of the following pairs?

1. 27,046 and 37,592 2. 97,216 and 56,316

3. 5,62,196 and 5,47,163 4. 3,43,322 and 4,24,336

- Ans.** 1. 27,046 2. 56,316 3. 5,47,163 4. 4,24,336

B. Which is the greater number in each of the following pairs?

1. 50,496 and 31,592
2. 56,316 and 57,216
3. 6,34,863 and 6,39,712
4. 4,75,471 and 4,75,432

Ans. 1. 50,496 2. 57,216 3. 6,39,712 4. 4,75,471

C. Arrange the following in ascending order.

1. 56,589, 32,459, 58,621
2. 78,282, 74,581, 1,17,908
3. 2,34,123, 7,18,594, 4,81,742
4. 90,871, 90,872, 5,78,797, 5,42,849

Ans. 1. 32,459; 56,589; 58,621 2. 74,581; 78,282; 1,17,908
3. 2,34,123; 4,81,742; 7,18,594 4. 90,871; 90,872; 5,42,849; 5,78,797

D. Arrange the following in descending order.

1. 81,742, 71,859, 95,227
2. 44,872, 46,797, 43,378
3. 3,42,189, 9,81,249, 3,45,629
4. 9,17,829, 7,23,827, 7,73,727, 87,240

Ans. 1. 95,227; 81,742; 71,859 2. 46,797; 44,872; 43,378
3. 9,81,249; 3,45,629; 3,42,189 4. 9,17,829; 7,73,727; 7,23,827; 87,240

EXERCISE 1.6

A. Make the largest and the smallest numbers of 5-digits using the digits given below. Repetition of digits is not allowed.

1. 9, 6, 4, 8, 2
2. 1, 4, 5, 8, 0

Ans. 1. Largest number: 98642; Smallest number: 24689
2. Largest number: 85410; Smallest number: 10458

B. Make the largest and the smallest numbers of 5-digits using the digits given below. Repetition of digits is allowed.

1. 3, 4, 2, 7, 1
2. 7, 6, 3, 9, 2

Ans. 1. Largest number: 77777; Smallest number: 11111
2. Largest number: 99999; Smallest number: 22222

C. Make the largest and the smallest 6-digit numbers using the given digits. You may repeat the digits.

1. 1, 3, 2, 5, 6, 8
2. 0, 2, 3, 6, 4, 9

Ans. 1. Largest number: 888888; Smallest number: 111111
2. Largest number: 999999; Smallest number: 200000

D. Make the largest and the smallest 6-digit numbers using each digit only once.

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

Ans. 1. Largest number: 986531; Smallest number: 135689
2. Largest number: 976421; Smallest number: 124679

EXERCISE 1.7

A. Round the following numbers to nearest tens.

1. 42,823
2. 1,92,478

Ans. 1. 42,820 2. 1,92,480

B. Round the following numbers to nearest hundreds.

1. 52,256 2. 6,83,845

Ans. 1. 52,300 2. 6,83,800

C. Round the following numbers to nearest thousands.

1. 36,727 2. 2,83,135

Ans. 1. 37,000 2. 2,83,000

D. Round the following numbers to nearest ten thousands.

1. 93,252 2. 7,67,610

Ans. 1. 90,000 2. 7,70,000

E. Round the following numbers to nearest lakhs.

1. 8,87,123 2. 9,28,721

Ans. 1. 9,00,000 2. 9,00,000

EXERCISE 1.8

A. Write the following in hundred thousands, ten thousands, thousands, hundreds, tens and ones.

1. 786234 2. 908345 3. 238734

Ans. 1. 7 hundred thousands, 8 ten thousands, 6 thousands, 2 hundreds, 3 tens and 4 ones
2. 9 hundred thousands, 0 ten thousands, 8 thousands, 3 hundreds, 4 tens and 5 ones
3. 2 hundred thousands, 3 ten thousands, 8 thousands, 7 hundreds, 3 tens and 4 ones

B. Write the numeral for each of these:

1. 5 hundred thousands, 7 ten thousands, 3 thousands, 6 hundreds, 6 tens and 8 ones.
2. 4 hundred thousands, 3 ten thousands, 8 thousands, 3 hundreds, 7 tens and 3 ones.
3. 6 hundred thousands, 4 ten thousands, 9 thousands, 1 hundred, 1 ten and 0 ones.

Ans. 1. 573,668 2. 438,373 3. 649,110

C. Write the place value of each digit of the following numbers:

1. 734217 2. 896730 3. 897234

Ans. 1. Place value of 7 is 7; Place value of 1 is 10; Place value of 2 is 200; Place value of 4 is 4000; Place value of 3 is 30000; Place value of 7 is 700000
2. Place value of 0 is 0; Place value of 3 is 30; Place value of 7 is 700; Place value of 6 is 6000; Place value of 9 is 90000; Place value of 8 is 800000
3. Place value of 4 is 4; Place value of 3 is 30; Place value of 2 is 200; Place value of 7 is 7000; Place value of 9 is 90000; Place value of 8 is 800000

D. Write the following numbers in place value chart.

1. 982318 2. 908324 3. 753821

Ans.

S.No.	Thousands Period			Ones Period		
	HTh	TTh	Th	H	T	O
1.	9	8	2	3	1	8
2.	9	0	8	3	2	4
3.	7	5	3	8	2	1

E. Write the number name for each of the following:

1. 908,345 2. 897,234 3. 987,823

Ans.

1. Nine hundred eight thousand three hundred forty five
2. Eight hundred ninety seven thousand two hundred thirty four
3. Nine hundred eighty seven thousand eight hundred twenty three

F. Write the numeral for each of the following:

1. Five hundred twenty two thousand, eight hundred and sixty nine.
2. Seven hundred forty seven thousand, four hundred and nineteen.
3. Six hundred three thousand, five hundred and nine.

Ans.

1. 522,869 2. 747,419 3. 603,509

EXERCISE 1.9

A. Write the following in Roman Numerals.

1. 8 2. 12 3. 16 4. 40
5. 55 6. 69 7. 87 8. 90
9. 98 10. 46

Ans. 1. VIII 2. XII 3. XVI 4. XL 5. LV 6. LXIX 7. LXXXVII 8. XC 9. XCVIII
10. XLVI

B. Write the following in Hindu-Arabic Numerals.

1. VII 2. XIII 3. XVIII 4. XXXIV
5. LXV 6. LXXIX 7. LXXXII 8. XCIV

Ans. 1. 7 2. 13 3. 18 4. 34 5. 65 6. 79 7. 82 8. 94

C. Identify the meaningless numerals.

1. IIII 2. XVX 3. LXV 4. LLI
5. XXIX 6. LCX 7. XCIX 8. LXXXVIII

Ans. 1. IIII 2. XVX 4. LLI 6. LCX

D. Match the following.

1. IV + VI → (a) XX - V
2. L - X → (b) X + II
3. L + IX → (c) L - XL
4. XX - VIII → (d) XXV + XV
5. VI + IX → (e) C - XLI

THINK AND ANSWER

Move only one matchstick to make the sentence correct.

1. $L V - X | = L X V$

2. $\square + X = X \square |$

Ans. 1. $L V + X = L X V$

2. $\square | - X = X \square |$

or

$\square - | X = X \square |$

FUN ZONE

PALINDROME

Rearrange the digits of the given numbers so that they form a palindrome.

1. 12124

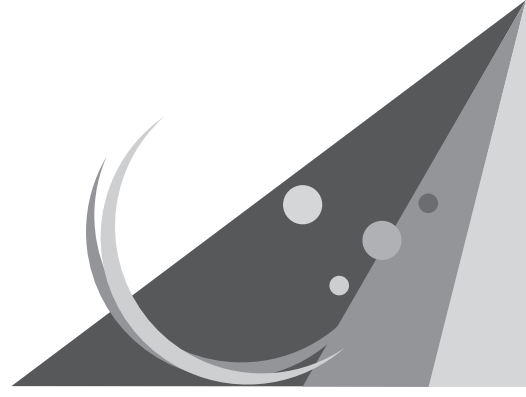
2. 36536

3. 42334

4. 966595

Ans. 1. 12421 or 21412 2. 36563 or 63536 3. 43234 or 34243

4. 965569 or 956659 or 596695 or 569965 or 659956 or 695596



2. Addition and Subtraction

ANSWERS

LET US RECALL

A. Add the following numbers.

$$\begin{array}{r}
 \text{1.} \quad \begin{array}{cccc} \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \text{1} & \\ & 6 & 1 & 3 & 5 \\ + & 1 & 3 & 4 & 7 \\ \hline & 7 & 4 & 8 & 2 \end{array}
 \end{array}$$

$$\begin{array}{r}
 \text{2.} \quad \begin{array}{cccc} \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \text{1} & \text{1} \\ & 5 & 2 & 9 & 8 \\ + & 2 & 4 & 1 & 2 \\ \hline & 7 & 7 & 1 & 0 \end{array}
 \end{array}$$

B. 1. There are 4462 girls and 3079 boys in a school. How many students study in this school?

Ans. 7541 students

Th	H	T	O
	1	1	
4	4	6	2
+	3	0	7
	7	5	4
			1

2. In a stadium there are 7588 seats. On a particular day, 5027 persons saw the match. How many seats were vacant?

Ans. 2561 seats

Th	H	T	O
7	5	8	8
-	5	0	2
	2	5	6
			1

C. Fill in the blanks.

- $2522 + 3258 = \underline{3258} + 2522.$
- $(3474 + 1071) + 3031 = (\underline{3474} + 1071) + 3031.$
- $0 + \underline{4339} = 4339.$
- $3692 - \underline{0} = 3692.$
- $1274 - \underline{1274} = 0.$

D. Check the following subtraction by addition:

$$\begin{array}{r}
 \begin{array}{cccc} 8 & 6 & 0 & 4 \\ - & 3 & 0 & 5 & 7 \\ \hline 5 & 5 & 4 & 7 \end{array}
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{cccc} 3 & 0 & 5 & 7 \\ + & 5 & 5 & 4 & 7 \\ \hline 8 & 6 & 0 & 4 \end{array}
 \end{array}$$

Subtraction is correct
 (correct✓/incorrect)

E. Simplify: $4961 - 2584 + 2175$

$$\begin{array}{r} 4 \quad 9 \quad 6 \quad 1 \\ - \boxed{2} \quad \boxed{5} \quad \boxed{8} \quad \boxed{4} \\ \hline 2 \quad 3 \quad 7 \quad 7 \end{array}$$

$$\begin{array}{r} \boxed{2} \quad \boxed{3} \quad \boxed{7} \quad \boxed{7} \\ + \boxed{2} \quad \boxed{1} \quad \boxed{7} \quad \boxed{5} \\ \hline 4 \quad 5 \quad 5 \quad 2 \end{array}$$

Ans: 4552

F. Estimate $3418 + 2191$ by rounding to nearest tens.

Estimate: 3420 + 2190 = 5610

G. Estimate $7519 - 3639$ by rounding to nearest hundreds.

Estimate: 7500 - 3600 = 3900

H. In the first month a shop sold 3871 items. In the second month it sold 5399 items. Estimate the total number of items sold in the two months by rounding to nearest thousands.

Ans. 9000 items

EXERCISE 2.1

A. Add the following numbers.

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B. Find the sum:

1. $26,267 + 65,121$

2. $32,290 + 67,506$

3. $1,32,635 + 2,16,667 + 3,31,319$

4. $16,923 + 33,951 + 50,613$

Ans. 1. 91,388

2. 99,796

3. 6,80,621

4. 1,01,487

C. Arrange in columns and add:

1. 28,974 and 31,379

2. 7,77,942 and 2,62,909

3. 26,858, 29,216, 70,669

4. 27,212, 28,214, 42,997

5. 1,85,827, 4,76,297, 7,19,201

6. 17,424, 15,912, 16,819, 12,502

- Ans.** 1. 60,353 2. 10,40,851 3. 1,26,743 4. 98,423
5. 13,81,325 6. 62,657

EXERCISE 2.2

Solve the following word problems:

1. A post office handled 72,227 letters on Monday and 51,751 letters on Tuesday. How many letters did it handle in the two days?

Ans. 1,23,978 letters

2. Police force of a state had 56,147 men last year. This year 12,276 more men were recruited. How many men does the police force has now?

Ans. 68,423 men

3. A factory produced 12,575 i-pods in the first month and 72,792 i-pods in the second month. How many i-pods were produced in two months?

Ans. 85,367 i-pods

4. A hospital treated 1,41,017 patients in January, 1,22,271 in February and 1,67,011 in March. How many patients did it treat in these three months?

Ans. 4,30,299 patients

5. A company had sold 74,876 computers last year. This year it has sold 12,851 more computers than it sold in the last year. How many computers did it sell this year?

Ans. 87,727 computers

6. A mobile company sold 1,17,257 connections in the first year, 2,27,547 connections in the second year and 3,42,575 connections in the third year. How many connections did it sell in three years taken altogether?

Ans. 6,87,379 connections

7. A house was made using 31,787 bricks. Another house was made using 35,211 bricks. How many bricks were used in all?

Ans. 66,998 bricks

8. Population of a town was 37,741 two years ago. It has increased by 42,617 since then. What is the population of this town now?

Ans. 80,358

9. An auto company sold 2,76,714 cars in March and 2,45,725 in April. In all how many cars did it sell in these two months?

Ans. 5,22,439 cars

10. A company sold 29,245 televisions in first year, 32,764 televisions in second year and 58,140 televisions in third year. How many televisions did it sell in the three years taken together?

Ans. 1,20,149 televisions

EXERCISE 2.3

Fill in the blanks.

- $17,252 + 77,258 = \underline{77,258} + 17,252.$
- $27,725 + \underline{52,728} = 52,728 + 27,725.$
- $\underline{7,14,419} + 2,14,227 = \underline{2,14,227} + 7,14,419.$
- $31,091 + \underline{22,742} = 22,742 + \underline{31,091}.$
- $[29,552 + 41,758] + 64,041 = 29,552 + [41,758 + \underline{64,041}].$
- $[5,45,074 + 6,76,072] + 4,57,075 = \underline{5,45,074} + [\underline{6,76,072} + 4,57,075].$
- $[12,707 + \underline{22,164}] + 41,565 = \underline{12,707} + [22,164 + \underline{41,565}].$
- $46,952 + 0 = \underline{46,952}.$
- $\underline{6,72,274} + 0 = 6,72,274.$
- $\underline{0} + 22,585 = 22,585.$

EXERCISE 2.4

A. Estimate the sum by rounding to nearest tens.

- $25,876 + 14,798$
- $1,75,416 + 2,27,147$
- A cricketer has made 20,557 runs in test matches and 76,997 runs in one day matches. Nearly how many tens of runs has he made in all?

Ans. 1. 40,680 2. 4,02,570 3. 97,560 runs

B. Estimate the sum by rounding to nearest hundreds.

- $21,477 + 76,558$
- $2,14,764 + 7,52,581$
- A company sold 25,875 cars in the first year and 22,571 cars in the second year. Estimate the number of cars sold by the company in the two years by rounding to nearest hundreds.

Ans. 1. 98,100 2. 9,67,400 3. 48,500 cars

C. Estimate the sum by rounding to nearest thousands.

- $19,912 + 77,745$
- $4,21,741 + 1,57,625$
- A book exhibition is on in the city. 47,719 people visited an exhibition on the first day and 24,189 people visited it on the second day. Estimate the number of people who visited the exhibition in the two days by rounding to nearest thousands.

Ans. 1. 98,000 2. 5,80,000 3. 72,000

D. Estimate the sum by rounding to nearest ten-thousands.

- $10,782 + 20,747$
- $1,50,541 + 2,41,067$
- Mohan has a collection of 29,721 coins. His brother has a collection of 12,287 coins. Estimate the number of coins the two brothers have by rounding to nearest ten-thousands.

Ans. 1. 30,000 2. 3,90,000 3. 40,000 coins

E. Estimate the sum by rounding to nearest lakhs.

- $5,19,912 + 1,77,745$
- $2,25,249 + 3,57,626$

3. Meena has a bank balance of ₹4,14,561 and her husband has a bank balance of ₹4,71,212. Estimate their total bank balance by rounding to nearest lakhs.

Ans. 1. 7,00,000 2. 6,00,000 3. ₹ 9,00,000

EXERCISE 2.5

A. Find the difference.

$$\begin{array}{r} \text{TTh} \quad \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 6 \quad 5 \quad \cancel{7} \quad \cancel{5} \quad 7 \\ - 1 \quad 2 \quad 1 \quad 7 \quad 4 \\ \hline 5 \quad 3 \quad 5 \quad 8 \quad 3 \end{array}$$

$$\begin{array}{r} \text{TTh} \quad \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 9 \quad 9 \quad 8 \quad 7 \quad 4 \\ - 7 \quad 5 \quad 6 \quad 1 \quad 2 \\ \hline 2 \quad 4 \quad 2 \quad 6 \quad 2 \end{array}$$

$$\begin{array}{r} \text{L} \quad \text{TTh} \quad \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 5 \quad 8 \quad 8 \quad 5 \quad 2 \quad 5 \\ - 2 \quad 7 \quad 7 \quad 0 \quad 0 \quad 5 \\ \hline 3 \quad 1 \quad 1 \quad 5 \quad 2 \quad 0 \end{array}$$

$$\begin{array}{r} \text{TTh} \quad \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 7 \quad 10 \\ \cancel{8} \quad \cancel{0} \quad 2 \quad 6 \quad 7 \\ - 6 \quad 1 \quad 0 \quad 0 \quad 2 \\ \hline 1 \quad 9 \quad 2 \quad 6 \quad 5 \end{array}$$

$$\begin{array}{r} \text{TTh} \quad \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad \quad 6 \quad 10 \\ 9 \quad 7 \quad \cancel{7} \quad \cancel{0} \quad 7 \\ - 4 \quad 2 \quad 2 \quad 1 \quad 7 \\ \hline 5 \quad 5 \quad 4 \quad 9 \quad 0 \end{array}$$

$$\begin{array}{r} \text{L} \quad \text{TTh} \quad \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad \quad 6 \quad 17 \quad 9 \quad 11 \quad 11 \\ 7 \quad \cancel{7} \quad \cancel{8} \quad \cancel{0} \quad \cancel{2} \quad \cancel{1} \\ - 4 \quad 4 \quad 9 \quad 2 \quad 6 \quad 4 \\ \hline 3 \quad 2 \quad 8 \quad 7 \quad 5 \quad 7 \end{array}$$

B. Subtract:

1. 88,467 - 76,742 2. 85,987 - 72,824 3. 9,95,278 - 2,67,289 4. 82,474 - 76,547

Ans. 1. 11,725 2. 13,163 3. 7,27,989 4. 5,927

C. Find the difference between:

1. 82,474 and 65,476 2. 7,78,864 and 8,92,747

Ans. 1. 16,998 2. 1,13,883

D. Arrange in columns and subtract the smaller number from the bigger number.

1. 77,274, 54,775 2. 89,525, 62,727

3. 2,22,275, 6,57,162 4. 84,745, 74,977

Ans. 1. 22,499 2. 26,798

3. 4,34,887 4. 9,768

E. Check the following subtractions by addition.

$$\begin{array}{r} 7 \quad 9 \quad 4 \quad 7 \quad 7 \\ - 5 \quad 5 \quad 2 \quad 8 \quad 2 \\ \hline 2 \quad 4 \quad 1 \quad 9 \quad 5 \end{array}$$

$$\begin{array}{r} 1 \quad 9 \quad 5 \quad 2 \quad 6 \quad 9 \\ - 1 \quad 5 \quad 7 \quad 7 \quad 8 \quad 2 \\ \hline 4 \quad 0 \quad 4 \quad 8 \quad 7 \end{array}$$

Ans. 1. Correct 2. Incorrect

EXERCISE 2.6

Solve the following word problems:

1. A hospital treated 79,529 patients in March and 47,518 patients in February. How many more patients did it treat in March than in February?

Ans. 32,011 patients

2. A trade fair had 37,414 visitors in the first year and 74,879 in the second year. How many more people visited the trade fair in the second year?

Ans. 37,465

3. Police force of a state has 86,787 men. Till last year they had 55,071 men. How many more men does the police force have now?

Ans. 31,716 men

4. A garrison had 3,28,844 soldiers. Out of this 25,712 soldiers were ordered to go to the border. How many soldiers are left in the garrison now?

Ans. 3,03,132 soldiers

5. In a poultry farm 2,87,692 eggs were collected during the year. Out of these 47,696 eggs were cracked so could not be sold. How many eggs could be sold?

Ans. 2,39,996 eggs

6. In an election between two candidates, Mr. Iqbal got 62,945 votes, and Mr. Kumar got 76,976 votes. What was the victory margin of Mr. Kumar?

Ans. 14,031 votes

7. In an election 77,657 valid votes were cast. 62,248 votes were in favour of the winning candidate. How many votes did the losing candidate get?

Ans. 15,409 votes

8. Till last year a car had done 65,874 km. Now its odometer reads 82,958 km. How many kilometers did the car travel in past one year?

Ans. 17,084 km

9. Sum of two numbers is 64,282. If one of them is 32,148, find the other number.

Ans. 32,134

10. Present population of a town is 3,59,257. During last ten years population of this town has increased by 2,12,189. What was the population of this town ten years ago?

Ans. 1,47,068

EXERCISE 2.7

Fill in the blanks.

1. $12,552 - 0 = \underline{12,522}$.

2. $5,27,142 - 0 = \underline{5,27,142}$.

3. $3,76,441 - \underline{0} = 3,76,441$.

4. $44,175 - \underline{0} = 44,175$.

5. $\underline{57,814} - 0 = 57,814$.

6. $6,42,842 - 6,42,842 = \underline{0}$.

7. $77,456 - 77,456 = \underline{0}$.

8. $87,410 - 87,410 = \underline{0}$.

9. $9,12,776 - \underline{9,12,776} = 0$.

10. $17,214 - \underline{17,214} = 0$.

11. $\underline{22,589} - 22,589 = 0.$

12. $\underline{3,67,241} - 3,67,241 = 0.$

EXERCISE 2.8

A. Estimate the difference by rounding to nearest tens.

1. $50,862 - 30,777$

2. $6,50,491 - 4,41,007$

3. Mohan has a collection of 27,487 coins. His brother has a collection of 14,227 coins. Estimate the number of coins Mohan has more than his brother by rounding to nearest tens.

Ans. 1. 20,080

2. 2,09,480

3. 13,260 coins

B. Estimate the difference by rounding to nearest hundreds.

1. $82,796 - 57,402$

2. $4,64,561 - 1,21,475$

3. A book exhibition is on in the city. 58,741 people visited an exhibition on the first day and 39,528 people visited it on the second day. Estimate how many people more visited the exhibition on the first day than on the second day by rounding to nearest hundreds.

Ans. 1. 25,400

2. 3,43,100

3. 19,200

C. Estimate the difference by rounding to nearest thousands.

1. $81,406 - 77,698$

2. $7,77,226 - 1,77,104$

3. A shopping mall recorded 70,888 footfalls in a week. Of these 28,079 footfalls were recorded in the last two days of the week. Estimate the number of footfalls in the first five days of the week by rounding to nearest thousands.

Ans. 1. 3,000

2. 6,00,000

3. 43,000 footfalls

D. Estimate the difference by rounding to nearest ten-thousands.

1. $77,706 - 76,298$

2. $5,45,226 - 2,12,104$

3. A fun park had 90,148 visitors in a month. Of these 56,921 visitors visited on Saturdays and Sundays. Estimate the number of visitors who visited the fun park in the first five days of the week by rounding to nearest ten-thousands.

Ans. 1. 0

2. 3,40,000

3. 30,000 visitors

E. Estimate the difference by rounding to nearest lakhs.

1. $6,74,228 - 2,29,872$

2. $7,08,216 - 2,90,204$

3. Population of a town A is 7,75,471. Also population of a town B is 6,29,081. Estimate how many people less live in town B than in town A by rounding to nearest lakhs.

Ans. 1. 5,00,000

2. 4,00,000

3. 2,00,000

EXERCISE 2.9

A. Simplify:

1. $62,176 - 25,220 + 51,742$

2. $54,144 + 24,280 - 42,921$

3. $2,77,657 + 3,74,440 - 4,22,148$

4. $50,458 - 21,404 + 27,816$

$$5. 34,477 + 46,295 - 59,429$$

$$6. 4,12,874 + 2,61,742 - 5,40,741$$

Ans. 1. 88,698

2. 35,503

3. 2,29,949

4. 56,870

5. 21,343

6. 1,33,875

B. Solve the following word problems:

1. A reservoir had 57,892 litres of water. 37,941 litres more of water was added to the reservoir. Now 58,675 litres of water was released. How many litres of water does the reservoir has stored in it now?

Ans. 37,158 Litres

2. Mr George had ₹58,967 in his bank account. He withdrew ₹37,852 in morning and deposited ₹27,821 in evening. What is his balance?

Ans. ₹ 48,936

3. 45,241 barrels of oil was loaded on a oil-tanker at a sea port. 42,842 barrels more was loaded on the second port. It delivered 62,874 barrels on the third port. How many barrels are stored in the oil-tanker now?

Ans. 25,209 barrels

4. 3,76,852 bags of wheat were stored in godown. A supply of 3,47,725 bags more was received. Later 5,62,854 bags were supplied to ration shops. How many bags are stored in the godown now?

Ans. 1,61,723 bags

FUN ZONE

Using compensation for easier addition/subtraction

We can use compensation to change the numbers of sums into multiples of 10, 100 or 1000 so that it is easier to add or subtract.

Let us see some examples to understand it.

Add 78 and 46.

7 8	→	78 (+2)	→	8 0
+ 4 6	→	46 (-2)	→	+ 4 4
1 2 4	←	Same result	→	1 2 4

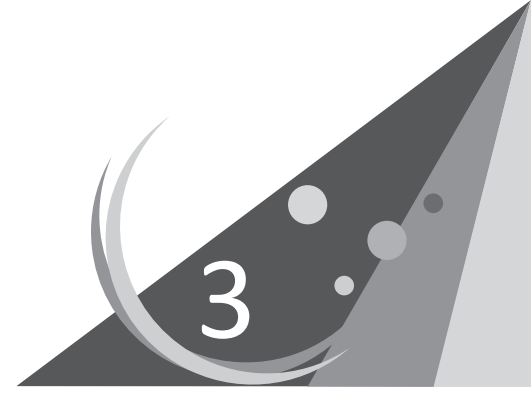
Add 295 and 628.

2 9 5	→ ⁺⁵	3 0 0
+ 6 2 8	→ ⁻⁵	+ 6 2 3
		9 2 3

For adding two numbers, increase one number and decrease the other by the same amount.

Subtract 203 from 485.

Multiplication



LESSON PLAN

SPECIFIC OBJECTIVES

The students will

- recall the multiplication tables of 1–15.
- learn the multiplication tables of 16–20.
- be able to do long multiplication using multiplication facts 16–20.
- be able to find the product of two numbers using expanded notation.
- be able to multiply by numbers greater than 20.
- know the shortcut of multiplication by 10s, 100s and 1000s.
- understand the use of multiplication to solve daily life problems.
- understand the multiplication facts/properties.
- find the estimated product of two numbers by rounding to nearest tens, hundreds, thousands, etc.
- know the lattice method of multiplication.

3. Multiplication

ANSWERS

LET US RECALL

A. Fill in the boxes using multiplication tables 1–10.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

B. Fill in the boxes using multiplication tables 11–15.

×	1	2	3	4	5	6	7	8	9	10
11	11	22	33	44	55	66	77	88	99	110
12	12	24	36	48	60	72	84	96	108	120
13	13	26	39	52	65	78	91	104	117	130
14	14	28	42	56	70	84	98	112	126	140
15	15	30	45	60	75	90	105	120	135	150

C. Fill in the boxes.

1. $11 + 11 + 11 + 11 + 11 + 11 = \boxed{6} \times 11$

2. $10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 = 10 \times \boxed{9}$

3. $5 \times 13 = \boxed{13} + \boxed{13} + \boxed{13} + \boxed{13} + \boxed{13}$

4. $15 + 15 + 15 + 15 + 15 + 15 = \boxed{6} \times \boxed{15}$

D. Vertical Multiplication

$$\begin{array}{r} \text{Th H T O} \\ 1 \ 7 \ 7 \ 6 \\ \times \quad 4 \\ \hline 7 \ 1 \ 0 \ 4 \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 1 \ 8 \ 7 \ 5 \\ \times \quad 5 \\ \hline 9 \ 3 \ 7 \ 5 \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 1 \ 0 \ 8 \ 5 \\ \times \quad 8 \\ \hline 8 \ 6 \ 8 \ 0 \end{array}$$

$$\begin{array}{r} \text{TTh Th H T O} \\ \quad \quad 5 \ 9 \ 4 \\ \times \quad 1 \ 4 \\ \hline 1 \ 2 \ 5 \ 1 \ 6 \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ \quad \quad 6 \ 5 \ 9 \\ \times \quad 1 \ 5 \\ \hline 9 \ 8 \ 8 \ 5 \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ \quad \quad 2 \ 1 \ 3 \\ \times \quad 3 \ 6 \\ \hline 7 \ 6 \ 6 \ 8 \end{array}$$

E. Each packet has 2450 erasers. How many erasers are there in 4 such packets?

Ans. 9800 erasers

F. Fill in the blanks.

1. $616 \times 10 = \underline{6160}$.

2. $379 \times 100 = \underline{37900}$.

3. $36 \times 1000 = \underline{36000}$.

4. $24 \times 70 = \underline{1680}$.

5. $80 \times 800 = \underline{64000}$.

6. $400 \times 30 = \underline{12000}$.

G. Fill in the blanks.

1. $1235 \times 1 = \underline{1235}$.

2. $1 \times \underline{3853} = 3853$.

3. $4335 \times 0 = \underline{0}$.

4. $0 \times 6964 = \underline{0}$.

5. $\underline{0} \times 8648 = 0$.

6. $7315 \times 2482 = 2482 \times \underline{7315}$.

H. Estimate the product by rounding to nearest tens.

59×97

Estimate: $\underline{60} \times \underline{100} = \underline{6000}$

EXERCISE 3.1

A. Fill in the boxes.

1. $16 + 16 + 16 + 16 + 16 + 16 + 16 = \boxed{7} \times 16$

2. $17 + 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17 = \boxed{10} \times 17$

3. $18 + 18 + 18 + 18 + 18 + 18 = 6 \times \boxed{18}$

4. $19 + 19 + 19 + 19 + 19 + 19 + 19 + 19 = 8 \times \boxed{19}$

5. $5 \times 16 = \boxed{16} + \boxed{16} + \boxed{16} + \boxed{16} + \boxed{16}$

$$6. 4 \times 20 = \boxed{20} + \boxed{20} + \boxed{20} + \boxed{20}$$

$$7. 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17 = \boxed{8} \times \boxed{17}$$

$$8. 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18 = \boxed{9} \times \boxed{18}$$

B. Have we learnt our tables? Let's check.

Complete the following patterns (Tables upto 16–20)

1.	16	32	48	64	80	96	112	128	144	160
2.	17	34	51	68	85	102	119	136	153	170
3.	18	36	54	72	90	108	126	144	162	180
4.	19	38	57	76	95	114	133	152	171	190
5.	20	40	60	80	100	120	140	160	180	200

C. Now let us write tables (16–20) in reverse:

1.	160	144	128	112	96	80	64	48	32	16
2.	170	153	136	119	102	85	68	51	34	17
3.	180	162	144	126	108	90	72	54	36	18
4.	190	171	152	133	114	95	76	57	38	19
5.	200	180	160	140	120	100	80	60	40	20

D. Fill in the blanks.

Dodging Tables

$9 \times 19 = \underline{171}$	$7 \times 19 = \underline{133}$	$5 \times 17 = \underline{85}$
$5 \times 20 = \underline{100}$	$9 \times 17 = \underline{153}$	$8 \times 17 = \underline{136}$
$10 \times 20 = \underline{200}$	$7 \times 18 = \underline{126}$	$8 \times 19 = \underline{152}$
$10 \times 16 = \underline{160}$	$10 \times 17 = \underline{170}$	$7 \times 20 = \underline{140}$
$6 \times 20 = \underline{120}$	$2 \times 18 = \underline{36}$	$9 \times 16 = \underline{144}$
$9 \times 18 = \underline{162}$	$10 \times 19 = \underline{190}$	$5 \times 20 = \underline{100}$

EXERCISE 3.2

A. Multiply:

$\begin{array}{r} 1. \quad 1 \ 5 \ 8 \ 3 \ 7 \\ \quad \quad \quad \times 1 \ 5 \\ \hline 2 \ 3 \ 7 \ 5 \ 5 \ 5 \end{array}$	$\begin{array}{r} 2. \quad 1 \ 5 \ 1 \ 2 \ 9 \\ \quad \quad \quad \times 1 \ 6 \\ \hline 2 \ 4 \ 2 \ 0 \ 6 \ 4 \end{array}$	$\begin{array}{r} 3. \quad 1 \ 3 \ 4 \ 0 \ 7 \ 5 \\ \quad \quad \quad \times 1 \ 7 \\ \hline 2 \ 2 \ 7 \ 9 \ 2 \ 7 \ 5 \end{array}$
$\begin{array}{r} 4. \quad 3 \ 4 \ 1 \ 8 \ 7 \\ \quad \quad \quad \times 1 \ 8 \\ \hline 6 \ 1 \ 5 \ 3 \ 6 \ 6 \end{array}$	$\begin{array}{r} 5. \quad 3 \ 4 \ 1 \ 6 \ 2 \\ \quad \quad \quad \times 1 \ 9 \\ \hline 6 \ 4 \ 9 \ 0 \ 7 \ 8 \end{array}$	$\begin{array}{r} 6. \quad 1 \ 2 \ 4 \ 3 \ 0 \ 5 \\ \quad \quad \quad \times 2 \ 0 \\ \hline 2 \ 4 \ 8 \ 6 \ 1 \ 8 \ 0 \end{array}$

B. Multiply:

1. $14,299 \times 16$	2. $1,53,251 \times 16$	3. $42,839 \times 17$
4. $2,35,716 \times 17$	5. $34,607 \times 18$	6. $2,13,289 \times 18$
7. $23,697 \times 19$	8. $2,02,345 \times 19$	9. $26,147 \times 20$

Ans. 1. 2,28,784 2. 24,52,016 3. 7,28,263 4. 40,07,172 5. 6,22,926
 6. 38,39,202 7. 4,50,243 8. 38,44,555 9. 5,22,940

C. Find the product using expanded notation

1. $23,159 \times 9$	2. $41,873 \times 8$	3. $19,337 \times 7$
4. $2,95,121 \times 5$	5. $4,12,771 \times 4$	

Ans. 1. 2,08,431 2. 3,34,984 3. 1,35,359 4. 14,75,605 5. 16,51,084

EXERCISE 3.3

A. Multiply:

$\begin{array}{r} 1. \quad \begin{array}{ccccccc} & L & TTh & Th & H & T & O \\ & & & 2 & & & 1 \\ & & & 2 & & & \\ & & & 1 & 7 & 2 & 3 \\ & & & & \times & 4 & 3 \\ \hline & 1 & 1 & & & & \\ & & 5 & 1 & 6 & 9 & \\ & 6 & 8 & 9 & 2 & \times & \\ \hline & 7 & 4 & 0 & 8 & 9 & \end{array} \end{array}$	$\begin{array}{r} 2. \quad \begin{array}{ccccccc} & L & TTh & Th & H & T & O \\ & & & 3 & 3 & & \\ & & & 1 & 1 & & \\ & & & 2 & 6 & 6 & 1 \\ & & & & \times & 6 & 2 \\ \hline & & & 1 & & & \\ & & & 5 & 3 & 2 & 2 \\ & 1 & 5 & 9 & 6 & 6 & \times \\ \hline & 1 & 6 & 4 & 9 & 8 & 2 \end{array} \end{array}$
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B. Multiply:

1. $4,329 \times 71$	2. $1,455 \times 62$	3. $2,736 \times 32$	4. $1,214 \times 52$
5. $2,397 \times 34$	6. $4,516 \times 62$	7. $1,553 \times 252$	8. $7,409 \times 235$

Ans. 1. 3,07,359 2. 90,210 3. 87,552 4. 63,128
 5. 81,498 6. 2,79,992 7. 3,91,356 8. 17,41,115

EXERCISE 3.4

Multiply:

1. $58,423 \times 10$	2. $46,243 \times 10$	3. $6,263 \times 100$
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4. $9,633 \times 100$

5. $789 \times 1,000$

6. $591 \times 1,000$

7. $465 \times 10,000$

8. $241 \times 10,000$

9. $23 \times 1,00,000$

Ans. 1. 5,84,230

2. 4,62,430

3. 6,26,300

4. 9,63,300

5. 7,89,000

6. 5,91,000

7. 46,50,000

8. 24,10,000

9. 23,00,000

EXERCISE 3.5**Multiply:**

1. $12,147 \times 20$

2. $40 \times 14,283$

3. $1,143 \times 500$

4. $600 \times 1,284$

5. $201 \times 8,000$

6. $7,000 \times 431$

7. $3,00,000 \times 42$

8. $2,00,000 \times 14$

9. $3 \times 20,00,000$

10. $20,00,000 \times 4$

Ans. 1. 2,42,940

2. 5,71,320

3. 5,71,500

4. 7,70,400

5. 16,08,000

6. 30,17,000

7. 1,26,00,000

8. 28,00,000

9. 60,00,000

10. 80,00,000

EXERCISE 3.6**Multiply:**

1. 300×600

2. $40 \times 8,000$

3. $6,000 \times 1,400$

4. $150 \times 5,000$

5. $140 \times 12,600$

6. $1,32,000 \times 60$

7. $42,000 \times 110$

8. $13,600 \times 430$

9. $400 \times 23,700$

Ans. 1. 1,80,000

2. 3,20,000

3. 84,00,000

4. 7,50,000

5. 17,64,000

6. 79,20,000

7. 46,20,000

8. 58,48,000

9. 94,80,000

EXERCISE 3.7**Solve the following word problems:**

1. There are 18 children in a team. I give 8 toffees to each child .How many toffees do I distribute?

Ans. 144 toffees

2. Shivam walks 9 km everyday. How much distance does he walk in 16 days?

Ans. 144 km

3. Each bag has 32,018 coins. How many coins will 17 such bags have?

Ans. 5,44,306 coins

4. Each consignment of toys has 21,500 toys. How many toys will be exported in 19 consignments?

Ans. 4,08,500 toys

5. A company produces 1,34,102 calculators every month. How many calculators will it produce in 15 months?

Ans. 20,11,530 calculators

6. A factory produces 2,525 cricket bats every week. How many cricket bats will it produce in 32 weeks?

Ans. 80,800 cricket bats

7. Each bag has 5,130 toothbrushes. How many toothbrushes will 316 such bags have?

Ans. 16,21,080 toothbrushes

8. Each packet has 10 paintbrushes. How many paintbrushes will 12,396 packets have?

Ans. 1,23,960 paintbrushes

9. Each crate has 246 bottles of cold drink. How many bottles of cold drink will 1,000 such bottles have?

Ans. 2,46,000 bottles

10. Each packet has 7 note-books. How many note-books will 1,00,000 packets have?

Ans. 7,00,000 note-books

11. Each packet has 300 balls. How many balls will 1,452 packets have?

Ans. 4,35,600 balls

12. Each consignment has 2,00,000 pens. How many pens will 12 such consignments have?

Ans. 24,00,000 pens

13. Each crate has 30 cans of cold drink. How many cans will a consignment of 2,000 crates have?

Ans. 60,000 cans

14. Each packet has 40 sheets. How many sheets will 17,000 such packets have?

Ans. 6,80,000 sheets

15. A truck can carry 2,300 bags of cotton in one round. How many bags of cotton will it carry in 219 rounds?

Ans. 5,03,700 bags

EXERCISE 3.8

Fill in the blanks.

1. $2,31,226 \times 1 = \underline{2,31,226}$.

2. $4,34,752 \times \underline{1} = 4,34,752$.

3. $\underline{7,52,343} \times 1 = 7,52,343$.

4. $1,53,030 \times 1,09,079 = \underline{1,09,079} \times 1,53,030$.

5. $1,24,503 \times \underline{7,29,281} = 7,29,281 \times 1,24,503$

6. $9,21,781 \times 0 = \underline{0}$.

7. $8,15,062 \times \underline{0} = 0$.

8. $(3,25,211 \times 2,35,326) \times 4,85,231 = 3,25,211 \times (\underline{2,35,326} \times \underline{4,85,231})$.

9. $(3,21,321 \times 1,34,932) \times 5,45,083 = \underline{3,21,321} \times (\underline{1,34,932} \times 5,45,083)$.

10. $(\underline{1,70,345} \times \underline{2,00,521}) \times 4,51,156 = 1,70,345 \times (2,00,521 \times 4,51,156)$.

EXERCISE 3.9

A. Estimate the product by rounding to nearest tens.

1. 315×412

2. $2,153 \times 532$

Ans. 1. 1,31,200

2. 11,39,500

B. Each packet has 124 combs. Estimate the number of combs contained in 319 such packets by rounding to nearest tens.

Ans. 38,400 combs

C. Estimate the product by rounding to nearest hundreds.

1. 314×392

2. 481×287

Ans. 1. 1,20,000

2. 1,50,000

D. Each packet has 314 pens. Estimate the number of pens contained in 499 such packets by rounding to nearest hundreds.

Ans. 1,50,000 pens

E. Estimate the product by rounding to nearest thousands.

1. $2,049 \times 2,102$

2. $2,681 \times 3,777$

Ans. 1. 40,00,000

2. 1,20,00,000

F. Each packet has 2,314 screws. Estimate the number of screws contained in 3,499 such packets by rounding to nearest thousands.

Ans. 60,00,000 screws

FUN ZONE

Lattice Multiplication Algorithm

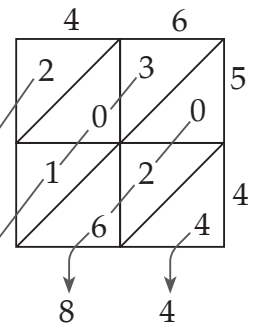
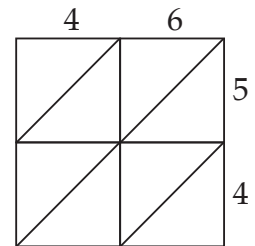
Lattice Algorithm method is a fun way to multiply two numbers. Let us have fun using this method.

1. Multiply 46×54 .

Draw 2×2 squares. Divide each square diagonally as shown alongside. Write multiplicand, say 46, on the top and multiplier, say 54, on the right side of the squares.

Now, multiply 6 by 5 and write the product as shown. Similarly, multiply other numbers and then add diagonally.

Thus, $46 \times 54 = 2,484$



2. Multiply 439 by 83.

To multiply 439×83 , let us draw 3×2 squares. Divide each square diagonally. Write the multiplicand and multiplier as shown alongside. Now, do the process as earlier.

Thus, $439 \times 83 = 36,437$

Now, using this method, multiply the following:

1. 68×47

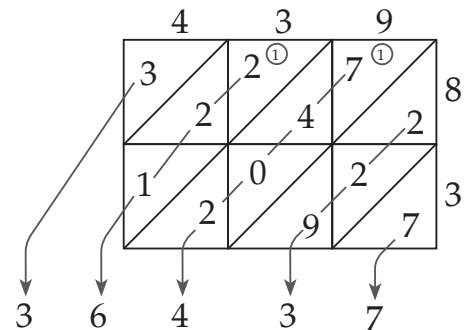
2. 568×79

3. 356×428

Ans. 1. 3,196

2. 44,872

3. 1,52,368



PERIODIC TEST 1

A. Choose the correct option.

1. Which of the following will give the greatest result?

(a) $2,46,830 + 1$

(b) $2,46,830 - 1$

(c) $2,46,830 \times 1$

(d) None of these

2. If $23,569 + 76,431 = 1,00,000$, then $1,00,000 - 76,431 =$

(a) 25,369

(b) 23,659

(c) 76,431

(d) 23,569

3. The estimated sum of $42,685 + 79,541$ to the nearest thousand is

(a) 1,21,000

(b) 1,22,000

(c) 1,23,000

(d) 1,22,100

4. The smallest six-digit number formed with three different digits is

(a) 1,23,123

(b) 1,00,002

(c) 1,00,012

(d) 1,01,002

B. Fill in the blanks.

1. The place value of 6 in 5,69,321 is 60,000.

2. The successor of the largest 5-digit number is 1,00,000.

3. The difference between 23,454 and 54,324 is 30,870.

4. The number of hours in a month is 720 hours.

C. Fill in the missing digits.

$$\begin{array}{r}
 5 \boxed{2} 3 4 6 \\
 4 3 7 8 \boxed{9} \\
 + \boxed{8} 1 5 \boxed{2} 9 \\
 \hline
 \boxed{1} 7 7 \boxed{6} 6 4
 \end{array}$$

$$\begin{array}{r}
 \boxed{4} 8 \boxed{9} 1 0 \boxed{5} \\
 - 2 \boxed{9} 2 9 \boxed{0} 6 \\
 \hline
 1 9 6 \boxed{1} 9 9
 \end{array}$$

$$\begin{array}{r}
 3 \boxed{8} \\
 \times \boxed{2} 4 \\
 \hline
 1 5 \boxed{2} \\
 7 \boxed{6} \\
 \hline
 \boxed{9} 1 2
 \end{array}$$

D. Complete the following multiplication facts.

1. $15 \times \underline{10} = 150$.

2. $11 \times 1,000 = \underline{11,000}$.

3. $8 \times 400 = \underline{3,200}$.

4. $\underline{4} \times 300 = 1,200$.

5. $412 \times \underline{100} = 41,200$.

E. 1. Write the following in Roman Numerals.

(a) 69

(b) 98

Ans. (a) LXIX

(b) XCVIII

2. Write the following in Hindu–Arabic Numerals.

(a) XVIII

(b) LXXXII

Ans. (a) 18

(b) 82

F. Round the following numbers to nearest thousands.

1. 96,727

2. 7,92,135

Ans. 1. 97,000

2. 7,92,000

G. Make the largest and the smallest 6-digit numbers using each digit only once.

1. 7, 6, 3, 8, 1, 5

2. 4, 2, 1, 8, 6, 9

Ans. 1. Largest number: 8,76,531; Smallest number: 1,35,678

2. Largest number: 9,86,421; Smallest number: 1,24,689

H. Multiply:

1. $4,329 \times 71$

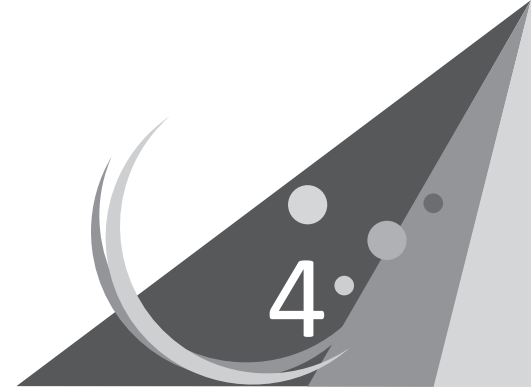
2. $4,516 \times 62$

Ans. 1. 3,07,359

2. 2,79,992

I. Sum of two numbers is 64,282. If one of them is 32,148, find the other number.

Ans. 32,134



LESSON PLAN

SPECIFIC OBJECTIVES

The students will

- recall the concept of division.
- learn division using multiplication facts of 16–20.
- learn how to do long division of large numbers by numbers up to 20 without/with remainder.
- learn how to divide a larger number by 2-digit numbers.
- understand the shortcut methods of dividing a number by 10s, 100s and 1000s.
- know the application of division in daily life situations.
- understand the division facts/properties.
- learn how to estimate the quotients.
- be able to solve challenging questions in which mixed operations are involved.

ANSWERS

LET US RECALL

A. Divide using multiplication facts of 11 to 15.

1. $66 \div 11 = \underline{6}$ 2. $96 \div 12 = \underline{8}$ 3. $52 \div 13 = \underline{4}$
 4. $98 \div 14 = \underline{7}$ 5. $135 \div 15 = \underline{9}$

B. A basket has 144 bananas. They were divided equally among 12 children. How many bananas did each child get?

Ans. 12 bananas

C. Long Division without Remainder

$$\begin{array}{r} 1. \quad \begin{array}{r} \overline{) 112} \\ 11 \overline{) 1232} \\ \underline{- 11} \\ 13 \\ \underline{- 11} \\ 22 \\ \underline{- 22} \\ 0 \end{array} \end{array}$$

Quotient is 112

$$\begin{array}{r} 2. \quad \begin{array}{r} \overline{) 629} \\ 12 \overline{) 7548} \\ \underline{- 72} \\ 34 \\ \underline{- 24} \\ 108 \\ \underline{- 108} \\ 0 \end{array} \end{array}$$

Quotient is 629

$$\begin{array}{r} 3. \quad \begin{array}{r} \overline{) 328} \\ 13 \overline{) 4264} \\ \underline{- 39} \\ 36 \\ \underline{- 26} \\ 104 \\ \underline{- 104} \\ 0 \end{array} \end{array}$$

Quotient is 328

$$\begin{array}{r} 4. \quad \begin{array}{r} \overline{) 593} \\ 14 \overline{) 8302} \\ \underline{- 70} \\ 130 \\ \underline{- 126} \\ 42 \\ \underline{- 42} \\ 0 \end{array} \end{array}$$

Quotient is 593

$$\begin{array}{r} 5. \quad \begin{array}{r} \overline{) 149} \\ 15 \overline{) 2235} \\ \underline{- 15} \\ 73 \\ \underline{- 60} \\ 135 \\ \underline{- 135} \\ 0 \end{array} \end{array}$$

Quotient is 149

D. Long Division with Remainder

$$\begin{array}{r} 1. \quad \begin{array}{r} \overline{) 250} \\ 11 \overline{) 2760} \\ \underline{- 22} \\ 56 \\ \underline{- 55} \\ 10 \end{array} \end{array}$$

Quotient is 250
Remainder is 10

$$\begin{array}{r} 2. \quad \begin{array}{r} \overline{) 665} \\ 15 \overline{) 9981} \\ \underline{- 90} \\ 98 \\ \underline{- 90} \\ 81 \\ \underline{- 75} \\ 6 \end{array} \end{array}$$

Quotient is 665
Remainder is 6

E. Fill in the blanks.

1. $1343 \div 1343 = \underline{1}$.

2. $6443 \div \underline{6443} = 1$.

3. $2441 \div 1 = \underline{2441}$.

4. $7267 \div \underline{1} = 7267$.

EXERCISE 4.1

Divide using multiplication facts of 16 to 20.

$126 \div 18 = \underline{7}$

$40 \div 20 = \underline{2}$

$144 \div 16 = \underline{9}$

$85 \div 17 = \underline{5}$

$96 \div 16 = \underline{6}$

$160 \div 20 = \underline{8}$

$51 \div 17 = \underline{3}$

$180 \div 20 = \underline{9}$

$136 \div 17 = \underline{8}$

$38 \div 19 = \underline{2}$

$153 \div 17 = \underline{9}$

$112 \div 16 = \underline{7}$

$90 \div 18 = \underline{5}$

$64 \div 16 = \underline{4}$

$119 \div 17 = \underline{7}$

$80 \div 16 = \underline{5}$

$102 \div 17 = \underline{6}$

$114 \div 19 = \underline{6}$

$95 \div 19 = \underline{5}$

$54 \div 18 = \underline{3}$

$108 \div 18 = \underline{6}$

$140 \div 20 = \underline{7}$

$171 \div 19 = \underline{9}$

$133 \div 19 = \underline{7}$

$100 \div 20 = \underline{5}$

$57 \div 19 = \underline{3}$

$200 \div 20 = \underline{10}$

$128 \div 16 = \underline{8}$

$36 \div 18 = \underline{2}$

$162 \div 18 = \underline{9}$

EXERCISE 4.2

Divide:

1. $16 \overline{)32240}$

2. $16 \overline{)272368}$

3. $17 \overline{)77435}$

4. $17 \overline{)293420}$

5. $18 \overline{)66564}$

6. $18 \overline{)693522}$

7. $19 \overline{)42047}$

8. $19 \overline{)449179}$

9. $20 \overline{)25100}$

10. $20 \overline{)233760}$

- Ans.** 1. Q = 2015 2. Q = 17023 3. Q = 4555 4. Q = 17260 5. Q = 3698
6. Q = 38529 7. Q = 2213 8. Q = 23641 9. Q = 1255 10. Q = 11688

EXERCISE 4.3

Divide:

1. $16 \overline{)30972}$

2. $16 \overline{)456252}$

3. $17 \overline{)63841}$

4. $17 \overline{)127867}$

5. $18 \overline{)42420}$

6. $18 \overline{)145605}$

7. $19 \overline{)68891}$

8. $19 \overline{)723498}$

9. $20 \overline{)83082}$

10. $20 \overline{)125090}$

- Ans.** 1. Q = 1935; R = 12 2. Q = 28515; R = 12 3. Q = 3755; R = 6 4. Q = 7521; R = 10
5. Q = 2356; R = 12 6. Q = 8089; R = 3 7. Q = 3625; R = 16 8. Q = 38078; R = 16
9. Q = 4154; R = 2 10. Q = 6254; R = 10

EXERCISE 4.4

A. Divide and check the answer:

1. $14580 \div 32$

2. $37950 \div 38$

3. $38465 \div 45$

4. $18970 \div 48$

5. $46825 \div 55$

6. $134917 \div 36$

7. $395723 \div 41$

8. $298676 \div 52$

9. $390872 \div 68$

10. $498234 \div 76$

- Ans.** 1. $Q = 455; R = 20$ 2. $Q = 998; R = 26$ 3. $Q = 854; R = 35$ 4. $Q = 395; R = 10$
 5. $Q = 851; R = 20$ 6. $Q = 3747; R = 25$ 7. $Q = 9651; R = 32$ 8. $Q = 5743; R = 40$
 9. $Q = 5748; R = 8$ 10. $Q = 6555; R = 54$

B. Divide the largest 6-digit number by the largest 2-digit number and check your answer.

Ans. $Q = 10101$

EXERCISE 4.5

A. Divide and find the quotient.

- | | | |
|----------------------|-----------------------|-----------------------|
| 1. $520 \div 10$ | 2. $2830 \div 10$ | 3. $78830 \div 10$ |
| 4. $1900 \div 100$ | 5. $27200 \div 100$ | 6. $328200 \div 100$ |
| 7. $24000 \div 1000$ | 8. $913000 \div 1000$ | 9. $127000 \div 1000$ |

- Ans.** 1. $Q = 52$ 2. $Q = 283$ 3. $Q = 7883$
 4. $Q = 19$ 5. $Q = 272$ 6. $Q = 3282$
 7. $Q = 24$ 8. $Q = 913$ 9. $Q = 127$

B. Divide and find the quotient and remainder.

- | | | |
|----------------------|-----------------------|-----------------------|
| 1. $4233 \div 10$ | 2. $90862 \div 10$ | 3. $87276 \div 100$ |
| 4. $182234 \div 100$ | 5. $327370 \div 1000$ | 6. $387173 \div 1000$ |

- Ans.** 1. $Q = 423, R = 3$ 2. $Q = 9086, R = 2$ 3. $Q = 872, R = 76$
 4. $Q = 1822, R = 34$ 5. $Q = 327, R = 370$ 6. $Q = 387, R = 173$

EXERCISE 4.6

Solve the following word problems:

1. 153 tables have to be equally arranged in 17 rows. How many tables must be arranged in each row?

Ans. 9 tables

2. 144 items are to be equally packed in 18 pouches. How many items were packed in each pouch?

Ans. 8 items

3. 23,248 pens are to be packed in packets of 16 pens each. How many such packets can be packed?

Ans. 1,453 packets

4. 180 copies of a book were equally packed in 20 bundles. How many copies of the book were packed in each bundle?

Ans. 9 copies

5. 7,22,532 pens are to be packed in packets of 16 pens each. How many complete packets can be packed? How many pens will be left behind?

Ans. 45,158 packets can be made, only 4 pens are left behind

6. 81,724 flowers are available to make garlands of 18 flowers each. How many garlands can be made?

Ans. 4,540 garlands can be made

7. At a bakery 3,07,425 pan cakes were produced. They were packed in packets of 17 pan cakes each. How many complete packets can be made? How many pan cakes will be left behind?

Ans. 18,083 packets can be made, only 14 pan cakes are left behind

8. 2,75,880 soap cakes were packed into packets of 19 soap cakes each. How many packets can be made?

Ans. 14,520 packets can be made.

9. 8,37,855 soap cakes were packed into packets of 19 soap cakes each. How many complete packets can be made?. How many soap cakes will be left behind?

Ans. 44,097 packets can be made, only 12 soap cakes are left behind

10. 7,12,458 shuttle cocks are to be packed in containers. Each container is to contain 20 shuttle cocks. How many containers can be completely packed? How many shuttle cocks will be left behind?

Ans. 35,622 containers can be completely packed, only 18 shuttle cocks are left behind

11. 2,34,168 flowers are available to make garlands of 48 flowers each. How many complete garlands can be made? How many flowers will be left behind?

Ans. 4,878 garlands can be made, only 24 flowers are left behind

12. 5,12,427 buttons are to be packed in containers. Each container is to contain 52 buttons. How many containers can be completely packed? How many buttons will be left behind?

Ans. 9,854 containers can be completely packed, only 19 buttons are left behind

13. 370 roses have to be equally bunched into 10 bunches. How many roses must be tied in each bunch?

Ans. 37 roses

14. 1,600 marbles were equally distributed in 100 bowls. How many marbles did each bowl contain?

Ans. 16 marbles

15. At a bakery 1,74,092 pan cakes were produced. They were packed in packets of 1000 pan cakes each. How many complete packets can be made? How many pan cakes are left behind?

Ans. 174 packets can be made, only 92 pan cakes are left behind

EXERCISE 4.7

Fill in the blanks.

1. $32,043 \div 32,043 = \underline{1}$.

2. $2,44,638 \div 2,44,638 = \underline{1}$.

3. $84,156 \div \underline{84,156} = 1$.

4. $7,62,988 \div \underline{7,62,988} = 1$.

5. $\underline{91,245} \div 91,245 = 1$.

6. $\underline{6,74,481} \div 6,74,481 = 1$.

7. $52,161 \div 1 = \underline{52,161}$.

8. $2,48,153 \div 1 = \underline{2,48,153}$.

9. $54,267 \div \underline{1} = 54,267.$

10. $6,42,541 \div \underline{1} = 6,42,541.$

11. $\underline{12,537} \div 1 = 12,537.$

12. $\underline{4,73,981} \div 1 = 4,73,981.$

EXERCISE 4.8

A. Estimate the following by rounding to nearest tens.

1. $3,539 \div 57$

2. $71,397 \div 68$

3. $2,54,254 \div 48$

Ans. 1. 59

2. 1020

3. 5085

B. Estimate the following by rounding to nearest hundreds.

1. $5,978 \div 379$

2. $33,567 \div 608$

3. $4,56,438 \div 423$

Ans. 1. 15

2. 56

3. 1141

C. Estimate the following by suitable rounding.

1. $2,363 \div 58$

2. $31,997 \div 76$

3. $4,814 \div 62$

4. $7,12,492 \div 28$

Ans. 1. 40

2. 400

3. 80

4. 23750

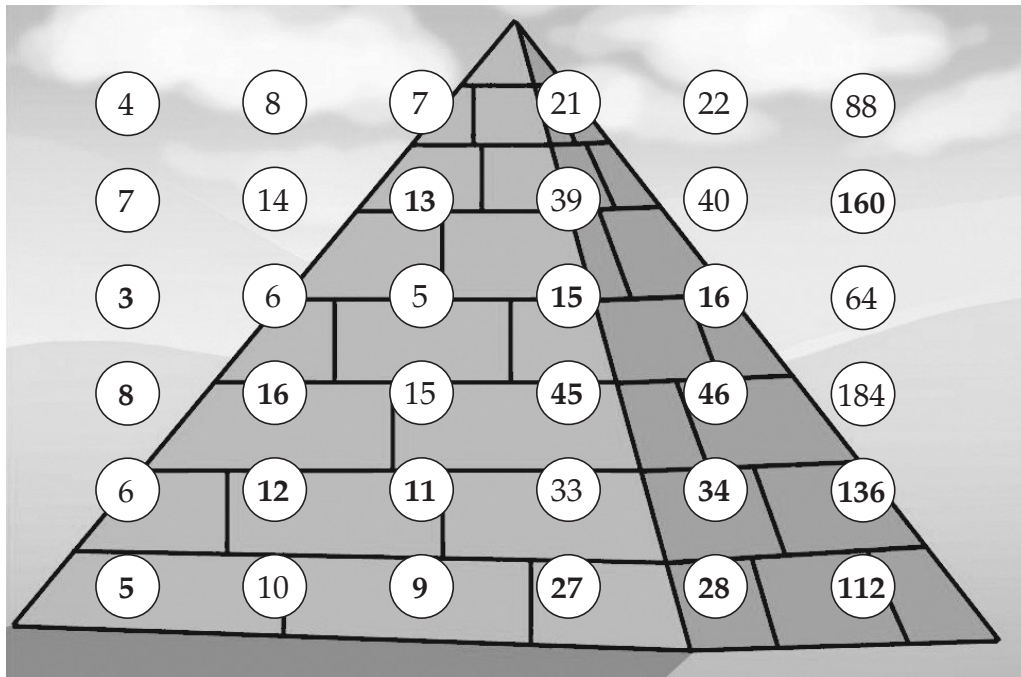
THINK AND ANSWER

Using the numbers 0 to 9, frame the problems that have the same result. Use +, -, × or ÷ sign, e.g., $1 + 5 = 2 \times 3 = 6 - 0 = 6$

1. Any three	$3 + 5, 2 \times 4, 9 - 1, \text{etc.},$ give result 8.
2. Any four	$6 \div 3, 2 \times 1, 7 - 5, 8 \div 4, \text{etc.},$ give result 2.
3. Any five	$8 \div 2, 9 - 5, 4 + 0, 1 + 3, 7 - 3, \text{etc.},$ give result 4.

FUN ZONE

Study the first row and apply the rule of this pattern to complete the other rows.



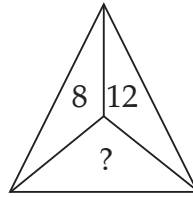
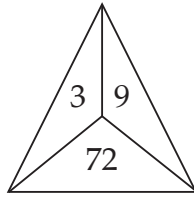
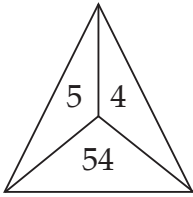
Rule: $\bigcirc \xrightarrow{\times 2} \bigcirc \xrightarrow{-1} \bigcirc \xrightarrow{\times 3} \bigcirc \xrightarrow{+1} \bigcirc \xrightarrow{\times 4} \bigcirc$

PUZZLE

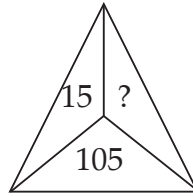
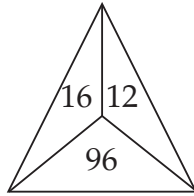
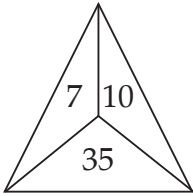
Triangle challenge!

Study the first two triangles in each row and complete the third one.

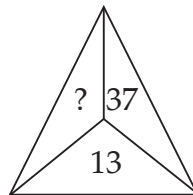
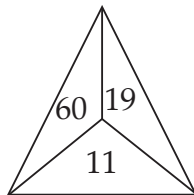
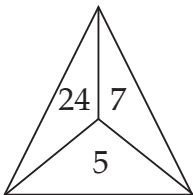
1.



2.



3.



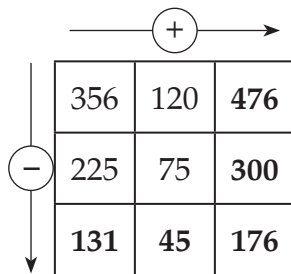
Ans.

1. $(5 + 4) \times 6 = 54$, $(3 + 9) \times 6 = 72$, $(8 + 12) \times 6 = 120$
2. $(35 \div 7) \times 2 = 10$, $(96 \div 16) \times 2 = 12$, $(105 \div 15) \times 2 = 14$
3. $(7 + 5) \times 2 = 24$, $(19 + 11) \times 2 = 60$, $(37 + 13) \times 2 = 100$

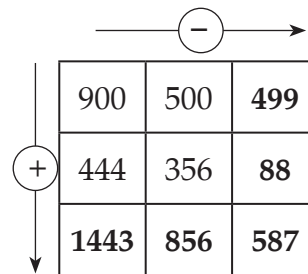
Square Challenge!

Do the operations and complete the grid.

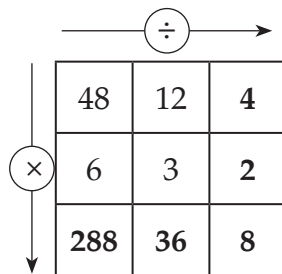
1.



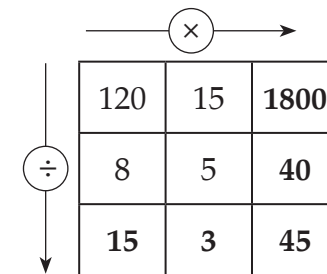
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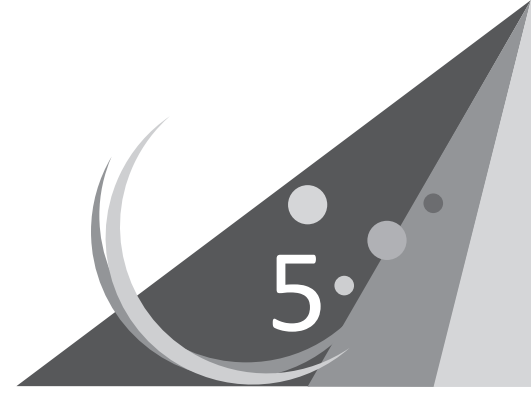
3.



4.



Factors and Multiples



LESSON PLAN

SPECIFIC OBJECTIVES

The students will

- know about the factors and their properties.
- learn how to find the factors of a number.
- know the common factors of two or more numbers.
- understand the multiples of a number.
- know the properties of multiples.
- be able to find out the common multiples of given numbers.
- know what LCM and HCF are.
- learn how to find out LCM and HCF of two or more numbers.
- know the types of numbers like even, odd, prime, composite, etc.
- learn the divisibility rules for the numbers 2, 3, 4, 5, 9 and 10.

CONTENTS EXPLAINED INSIDE THE CHAPTER

- Factors (pages 160–162)
- Common Factors (pages 162–163)
- Multiples (pages 163–165)
- Common Multiples (page 165)
- HCF and LCM (pages 166–167)
- Even and Odd Numbers (page 168)
- Prime and Composite Numbers (pages 168–170)
- Rules of Divisibility (pages 170–171)

TEACHING AIDS

A square grid paper, a plain paper, a pencil, a chalk, a blackboard and concrete items.

TEACHING STRATEGY

- At first, the teacher should introduce the term **factors** and explain its properties to the class.
- Thereafter, she should explain how to find the factors of a number. She should also develop the idea of common factors. For text and exercise, she should go to pages 160–163.
- Further, the teacher should talk about the **multiples** along with their properties. Also, she should discuss about common multiples. Then, she should go to pages 163–165 for text and exercise.
- After that, the teacher should explain the HCF and LCM for two or three numbers on the blackboard. She may involve the students in performing the Maths Lab Activity for finding LCM. She should go to pages 166–167 for text and exercise.
- Then, she should discuss of even, odd, prime and composite numbers. She should go to pages 168–170 for text and exercise.
- Now, the teacher should talk about the divisibility rules for the numbers 10, 9, 5, 4, 3 and 2 by which the students can solve the problems quickly. For text and exercise, the teacher should go to pages 170–171.
- Moreover, she should provide them a 100-number chart to each student or ask to prepare it themselves using a 10×10 square grid. Then, she should instruct them using the steps mentioned in Fun Zone and ask them to answer the questions given at the bottom.

EXPECTED LEARNING OUTCOMES

Students are able to

- explain about the factors and their properties.
- find out the factors and common factors of the given numbers.
- understand the multiples and their properties.
- find out the multiples and common multiples of the given numbers.
- calculate HCF and LCM of 2 or 3 numbers.
- identify the even, odd, prime or composite numbers.
- use the divisibility terms to resolve the simple problems.

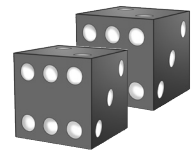
SUGGESTED ACTIVITY

Aim: The group GCF activity is useful for practising factors as well as understanding the concept of the Greatest Common Factor.

Materials: 2 dice per pair of students, paper and pencil for each child

Teacher's Instruction

1. Review the concept of the Greatest Common Factor.
2. Find the GCF for a few pairs of numbers to review the procedure.
3. Divide the class into pairs of students.
4. Provide two dice to each pair.
5. Instruct each student to roll the pair of dice and come up with a 2-digit number using the numbers on the dice.



6. The students then find all the factors for their numbers and write them down on a sheet of paper.
7. The pairs then compare their factors and find the GCF of the two numbers.
8. Finally, instruct each pair to use the mathematical procedure for finding the GCF of the two numbers and compare the answers.
9. Let the students do the same steps for more numbers.

5. Factors and Multiples

ANSWERS

EXERCISE 5.1

A. Find all the factors of the following numbers.

1. 15 2. 20 3. 30 4. 36
5. 42 6. 56 7. 60 8. 81

- Ans. 1. 1, 3, 5, 15 2. 1, 2, 4, 5, 10, 20 3. 1, 2, 3, 5, 6, 10, 15, 30 4. 1, 2, 3, 4, 6, 9, 12, 18, 36
5. 1, 2, 3, 6, 7, 14, 21, 42 6. 1, 2, 4, 7, 8, 14, 28, 56 7. 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60
8. 1, 3, 9, 27, 81

B. In each of the following, check whether the first number is a factor of the second number.

1. 8, 72 Yes 2. 10, 150 Yes 3. 15, 275 No 4. 12, 144 Yes
5. 9, 638 No 6. 11, 5720 Yes 7. 18, 4658 No 8. 19, 1235 Yes

C. Fill in the blanks.

1. The smallest factor of every number is 1.
2. $3 \times 5 = 15$, so 3 and 5 are the factors of 15.
3. The largest factor of 10 is 10.
4. 5 has only two factors which are 1 and 5.
5. $3 \times 5 \times 7 = 105$, so, 3, 5 and 7 are the factors of 105.

D. 1. Which of the following are not the factors of 48?

2, 3, 4, 5, 6, 7, 9, 12, 20

Ans. 5, 7, 9, 20

2. Identify the factors of 90 in the following.

8, 6, 9, 3, 10, 12, 18, 25

Ans. 6, 9, 3, 10, 18

3. Write all the factors of 72 except 1 and the number itself.

Ans. 2, 3, 4, 6, 8, 9, 12, 18, 24, 36

4. Can you write a factor of 120 greater than the number itself?

Ans. No

E. Find the common factors of:

1. 12, 16 2. 15, 25 3. 28, 35 4. 72, 120
5. 60, 90 6. 64, 96 7. 75, 125 8. 84, 126

- Ans. 1. 1, 4 2. 1, 5 3. 1, 7 4. 1, 2, 3, 4, 6, 8, 12, 24

5. 1, 2, 3, 5, 6, 10, 15, 30 6. 1, 2, 4, 8, 16, 32 7. 1, 5, 25 8. 1, 2, 3, 6, 7, 14, 21, 42

EXERCISE 5.2

A. Find the first four multiples of the following numbers.

1. 6 2. 7 3. 8 4. 10
5. 11 6. 19 7. 30 8. 45

- Ans.** 1. $6 \rightarrow 6, 12, 18, 24$ 2. $7 \rightarrow 7, 14, 21, 28$ 3. $8 \rightarrow 8, 16, 24, 32$
4. $10 \rightarrow 10, 20, 30, 40$ 5. $11 \rightarrow 11, 22, 33, 44$ 6. $19 \rightarrow 19, 38, 57, 76$
7. $30 \rightarrow 30, 60, 90, 120$ 8. $45 \rightarrow 45, 90, 135, 180$

B. Write the following numbers.

1. Multiples of 3 which lie between 15 and 25.

Ans. 18, 21, 24

2. Multiples of 14 which lie between 30 and 80.

Ans. 42, 56, 70

3. Two multiples of 11 closer to 60.

Ans. 55 and 66

4. First 3 multiples of 15 greater than 100.

Ans. 105, 120, 135

5. 6th, 8th and 11th multiple of 16.

Ans. 96, 128 and 176

C. Find out whether the first number is a multiple of the second number.

1. 682, 4 2. 165, 5 3. 835, 7 4. 2034, 18

- Ans.** 1. No 2. Yes 3. No 4. Yes

D. Write the first three common multiples of the following pairs of numbers:

1. 2, 3 2. 5, 6 3. 6, 8 4. 9, 12
5. 10, 15 6. 15, 12 7. 12, 16 8. 6, 9

- Ans.** 1. 6, 12, 18 2. 30, 60, 90 3. 24, 48, 72 4. 36, 72, 108
5. 30, 60, 90 6. 60, 120, 180 7. 48, 96, 144 8. 18, 36, 54

MENTAL TEST

Find the LCM and HCF of each of the following mentally.

1. 4, 16 2. 9, 45 3. 36, 12 4. 7, 147

- Ans.** 1. LCM = 16, HCF = 4 2. LCM = 45, HCF = 9 3. LCM = 36, HCF = 12 4. LCM = 147, HCF = 7

EXERCISE 5.3

A. Find the HCF of the following.

1. 12, 18 2. 10, 25 3. 36, 42 4. 40, 56
5. 4, 6, 10 6. 12, 16, 28 7. 15, 40, 55 8. 24, 60, 96

- Ans.** 1. 6 2. 5 3. 6 4. 8
 5. 2 6. 4 7. 5 8. 12

B. Find the LCM of the following.

1. 2, 3 2. 4, 6 3. 5, 10 4. 8, 10
 5. 12, 16 6. 3, 6, 9 7. 4, 6, 10 8. 12, 15, 30

- Ans.** 1. 6 2. 12 3. 10 4. 40
 5. 48 6. 18 7. 60 8. 60

C. 1. Can 6 and 15 be the HCF and LCM of two numbers?

Ans. No, as 6 is not a factor of 15.

2. Can 18 and 72 be the HCF and LCM of two numbers?

Ans. Yes, as 18 is a factor of 72.

3. Is 25 the LCM of 5 and 20?

Ans. No, as 25 is not divisible by 20.

4. Is 12 the HCF of 48 and 84?

Ans. Yes, as 48 and 84 are divisible by 12.

5. Find the LCM and HCF of 4, 6 and 10. Check whether the HCF is a factor of the LCM.

Ans. HCF = 2 and LCM = 60; 60 is divisible by 2.

EXERCISE 5.4

A. Identify even or odd numbers.

1. 5 2. 8 3. 19 4. 37 5. 82 6. 103
 7. 421 8. 500 9. 666 10. 1099 11. 7325 12. 6948

- Ans.** 1. odd 2. even 3. odd 4. odd 5. even 6. odd
 7. odd 8. even 9. even 10. odd 11. odd 12. even

B. Identify the following as prime or composite numbers.

1. 3 2. 6 3. 7 4. 15 5. 18 6. 21
 7. 29 8. 34 9. 40 10. 47 11. 53 12. 63

- Ans.** 1. prime 2. composite 3. prime 4. composite 5. composite 6. composite
 7. prime 8. composite 9. composite 10. prime 11. prime 12. composite

C. 1. Write all the prime numbers below 20.

Ans. 2, 3, 5, 7, 11, 13, 17, 19

2. Give two examples of twin primes.

Ans. 3, 5; 5, 7; 11, 13; 17, 19, etc.

3. Write the smallest composite number which is odd.

Ans. 9

4. Give three examples of co-primes.

Ans. 2, 3; 6, 7; 16, 25; etc.

5. Is 1 a prime number or composite number?

Ans. 1 is neither prime nor composite.

6. Write the smallest composite number.

Ans. 4

7. Is the greatest two-digit number even?

Ans. No

8. Are 13 and 15 twin primes? Are 10 and 21 co-primes?

Ans. 15 is composite, so, 13 and 15 are not twin primes. Yes, 10 and 21 are co-primes.

9. Are all the prime numbers odd?

Ans. No, as 2 is even.

EXERCISE 5.5

A. Test for divisibility of the following numbers by 2.

1. 366✓

2. 3520✓

3. 78363✗

B. Test for divisibility of the following numbers by 3.

1. 213✓

2. 4586✗

3. 56208✓

C. Test for divisibility of the following numbers by 4.

1. 816✓

2. 4194✗

3. 72536✓

D. Test for divisibility of the following numbers by 5.

1. 350✓

2. 2335✓

3. 91404✗

E. Test for divisibility of the following numbers by 9.

1. 414✓

2. 5963✗

3. 92322✓

F. Test for divisibility of the following numbers by 10.

1. 443✗

2. 3460✓

3. 25970✓

FUN ZONE

Have fun with a 100-number chart!

THE SIEVE OF ERATOSTHENES

- Take a 100-number chart. If it is not available, you can make your own chart. Take a 10×10 square grid and write the numbers from 1 to 100. Leave 1 as it is neither prime nor composite.
- Encircle 2 and cross out all other multiples of 2.
- Encircle the next uncrossed number, i.e., 3 and cross out all other multiples of 3.
- Encircle the next uncrossed number, i.e., 5 and cross out all other multiples of 5.
- Encircle the next uncrossed number, i.e., 7 and cross out all other multiples of 7.
- Now, encircle the remaining numbers. Do you know the numbers which you encircled? Yes! These are **prime numbers** up to 100.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

All the numbers you crossed out are **composite numbers**.

Now, answer these questions:

1. Write the pairs of twin primes up to 100.

Ans. 3, 5; 5, 7; 11, 13; 17, 19; 29, 31; 41, 43; 59, 61 and 71, 73

2. Can you say seven consecutive composite numbers?

Ans. Yes, 90, 91, 92, 93, 94, 95, 96

3. How many pairs of primes that differ by 10 you see in the above chart?

Ans. 10 pairs in all \rightarrow 3, 13; 7, 17; 13, 23; 19, 29; 31, 41; 37, 47; 43, 53; 61, 71; 73, 83 and 79, 89



LESSON PLAN

SPECIFIC OBJECTIVES

The students will

- recapitulate the concepts learnt earlier.
- know the basic terms associated with geometry.
- learn how to measure and draw a line segment using a ruler.
- know about angles, their names and regions of an angle.
- read about different types of polygons.
- learn drawing a circle using a pair of compasses.
- know the terms related to a circle.
- learn about creation of designs using circles.

CONTENTS EXPLAINED INSIDE THE CHAPTER

- Basic Ideas of Geometry (pages 174–175)
- Measuring and Drawing Line Segment (pages 176–178)
- Angles (pages 178–179)
- Types of Polygons (pages 179–181)
- Circles (pages 181–184)

TEACHING AIDS

A tracing paper, a plain paper, a pencil, a geometry box, solids with circular base, circular objects like coins, bangles, paper plates, etc., a pair of scissors and markers.

TEACHING STRATEGY

- As the students already know simple 2D and 3D figures, so, the teacher should first recall them to initiate the chapter. Then, she should ask them to observe the figures shown on page 174 and write their names on a separate sheet of paper. Then, she should instruct them to fill in the grid of crossword puzzle.
- Again, the teacher should talk about the basic terms like line, line segment, point, etc. to recall the ideas learnt in the previous classes. Then, she should extend their knowledge about

line segments and assist them in drawing and measuring the line segments using the ruler and the pencil. For text and exercise, she should go to pages 174–178.

- As the students learn geometry naturally by interacting with objects in their surroundings, so the teacher should show them several things in which angles can be observed. Then, she should go pages 178–179 for text.
- Also, she should introduce a few polygons like triangle, quadrilateral, pentagon, etc. Then, she should instruct them to do exercise 6.2.
- Further, the teacher should talk about circles and develop the idea for drawing it using different circular objects, a pencil, a string and a pair of compasses. Then, she should explain the terms related to the circle. Also, she can use Maths Lab Activity to give them better concept of diameter and radius. Finally, she should go to pages 181–184 for text and exercise.
- Students should enjoy by solving the problems given in Fun Zone and develop their thinking skills. Hence, the teacher should instruct them so that they can perform it well.
- Thereafter, the teacher should motivate them to solve the puzzle and to create their own designs.

EXPECTED LEARNING OUTCOMES

Students are able to

- recognise the basic elements like point, line, line segment, etc., and can express them using symbols.
- identify the figures of closed and open curves, polygons, etc.
- measure and draw line segments using a ruler.
- read and understand the angles and their features.
- construct a circle using a pair of compasses and a pencil.
- understand the terms associated with circles.
- create the circular designs to decorate some items occasionally.

Finally, she may assess the students by using the materials given in Periodic Test–2 or by preparing a similar paper at the end of the semester.

SUGGESTED ACTIVITY

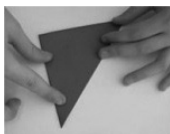
Origami Dog

This is an origami animal. It looks beautiful on a greeting card with a bow under its chin, or it can be pasted on a wooden spoon to make a puppet. Students can even use a very large piece of paper to make a dog mask to wear.

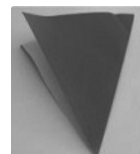
You need stick-on googly eyes and a black marker to draw the dog's features.

Instructions:

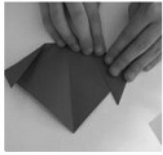
1. Start by folding a square in half diagonally, and creasing carefully.



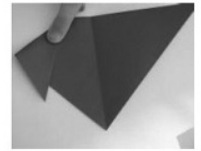
2. Fold the triangle in half again to form a crease. Open it from the backside again.



3. Now, turn the triangle so that the long side is at the top. Fold one of the corners down, as shown in the figure, to form an ear.



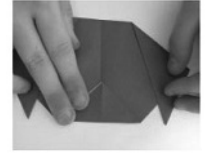
4. Do the same with the other corner. Try to make the ears even.



5. Now, fold the bottom point up, to form the dog's nose.



6. Finally, add dog's other features.



6. Geometry

ANSWERS

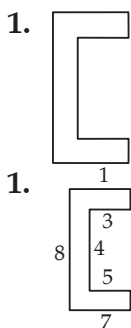
PAGE 174

Observe the figures and put their names in the given crossword puzzle.

C	U	B	O	I	D		
Y			T		R	A	Y
L	C	U	R	V	E		
I		C	I	R	C	L	E
N			A		T		
D	C	O	N	E	A		L
E			G		N		I
R	P	O	L	Y	G	O	N
C	U	B	E		L		E
S	Q	U	A	R	E		

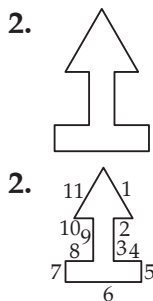
EXERCISE 6.1

A. Count the number of line segments in the following figures.

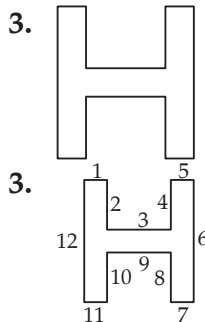


Ans. 1.

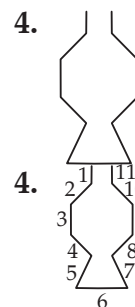
8 line segments



11 line segments

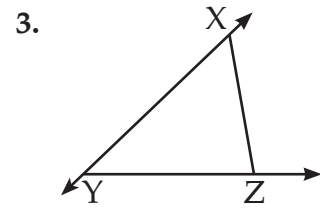
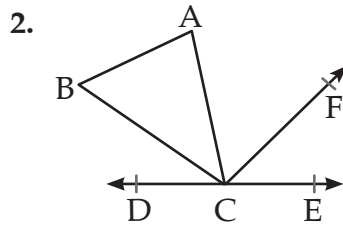
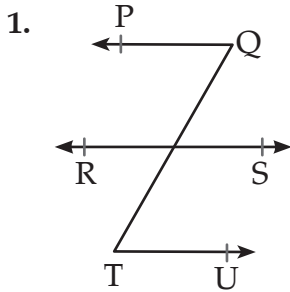


12 line segments



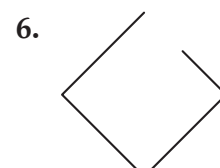
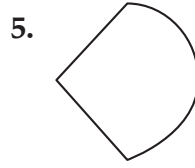
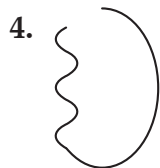
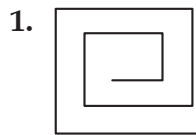
11 line segments

B. Name the line segments, rays and lines in each figure.



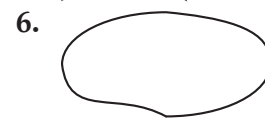
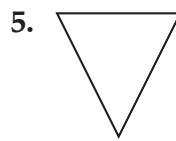
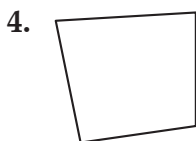
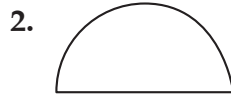
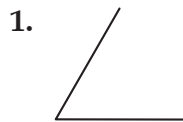
- Ans.** 1. Line segment: \overline{QT} , Rays: \overrightarrow{QP} and \overrightarrow{TU} , Line: \overleftrightarrow{RS}
 2. Line segments: \overline{AB} , \overline{BC} and \overline{AC} , Ray: \overrightarrow{CF} , Line: \overleftrightarrow{DE}
 3. Line segment: \overline{XZ} , Ray: \overrightarrow{YZ} , Line: \overleftrightarrow{XY}

C. Classify the following as an open curve or a closed curve.



- Ans.** 1. Open
 2. Closed
 3. Closed
 4. Open
 5. Closed
 6. Open

D. Identify the polygon in the following shapes.



- Ans.** Polygons: 3, 4 and 5

E. Draw the line segments of the given lengths.

1. 4 cm

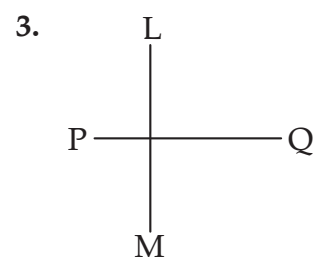
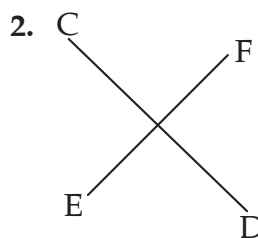
2. 9 cm

3. 7 cm 5 mm

4. 5.2 cm

Ans. Do it yourself.

F. Measure the length of the given line segments.



Ans. 1. $\overline{AB} = 4.4 \text{ cm}$, $\overline{BC} = 2.1 \text{ cm}$ 2. $\overline{CD} = 4.1 \text{ cm}$, $\overline{EF} = 3.3 \text{ cm}$ 3. $\overline{PQ} = 3.1 \text{ cm}$, $\overline{LM} = 3.1 \text{ cm}$

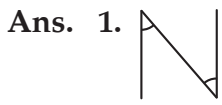
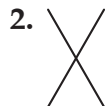
MENTAL TEST

Think of any two situations from your surroundings where you can observe angles.

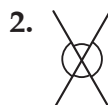
Ans. An angle between walls of the room, An angle between the wall and the ladder, An angle between two spikes of the bicycles' wheels, etc.

EXERCISE 6.2

A. Mark the angles in the following letters. How many angles have you marked?



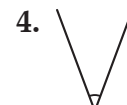
Two



Four

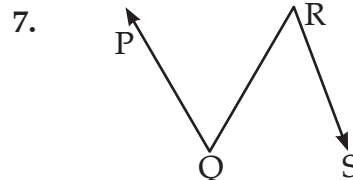
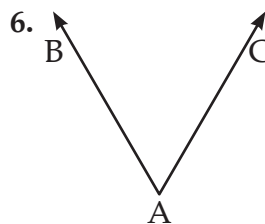
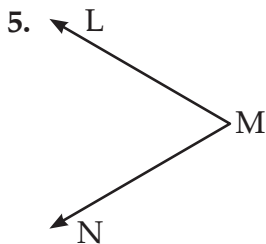
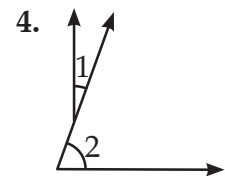
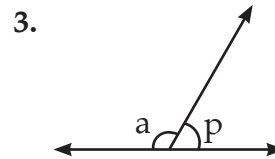
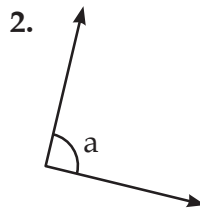
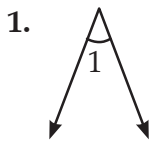


Three



One

B. Name the angles in the following figures.

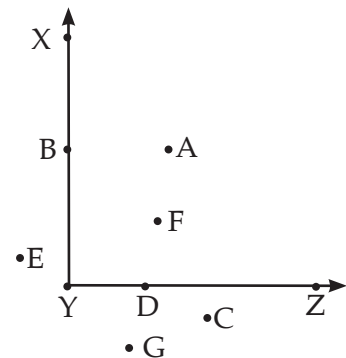


Ans. 1. $\angle 1$ 2. $\angle a$ 3. $\angle a$ and $\angle p$ 4. $\angle 1$ and $\angle 2$ 5. $\angle LMN$ or $\angle NML$ 6. $\angle BAC$ or $\angle CAB$
7. $\angle PQR$ or $\angle RQP$ and $\angle QRS$ or $\angle SRQ$

C. Name the points that lie:

1. In the interior of $\angle XYZ$.
2. In the exterior of $\angle XYZ$.
3. On the $\angle XYZ$.

Ans. 1. A, F 2. C, G, E 3. X, B, Y, D, Z



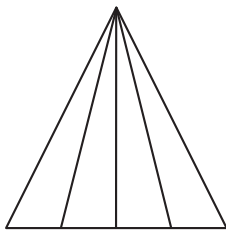
D. State whether the following statements are True or False.

1. A quadrilateral has three sides and four vertices.
2. A rectangle has all sides equal.
3. A square is a type of a triangle.
4. An angle has two arms and one vertex.
5. A polygon with three sides is called a triangle.

False
False
False
True
True

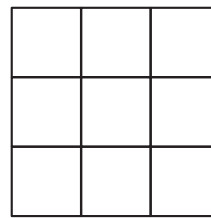
E. 1. How many triangles

are there? 10



2. How many squares are there?

14



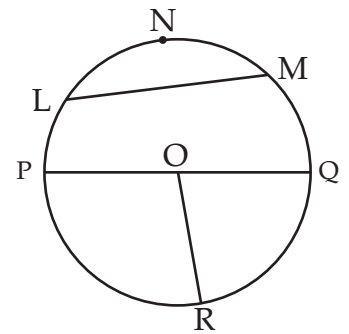
EXERCISE 6.3

A. Fill in the blanks.

1. If the radius of a circle is 4 cm, then the diameter is 8 cm.
2. If the diameter of a circle is 10 cm, then the radius is 5 cm.

B. Write the names of the following in the given circle:

1. O is centre.
2. PQ is diameter.
3. LM is chord.
4. OR is radius.
5. PQ is the diameter.
6. \widehat{LNM} is arc.



C. Complete the table.

Radius	2 cm	3 cm	3.5 cm	7.5 cm	20 cm	2 m 10 cm
Diameter	4 cm	6 cm	7 cm	15 cm	40 cm	4 m 20 cm

D. Draw the circle using a pair of compasses for each of the given radii. Also, measure its diameter.

1. 3 cm 2. 5 cm 3. 4 cm 5 mm 4. 3.8 cm

Ans. 1. diameter = 6 cm 2. diameter = 10 cm 3. diameter = 9 cm 4. diameter = 7.6 cm

E. Draw the circle whose diameter is given below.

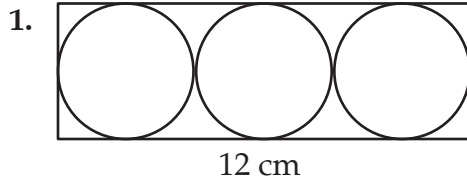
1. 8 cm 2. 12 cm 3. 7 cm 4. 13 cm

Ans. Do it yourself.

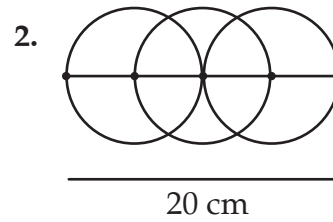
F. Draw a circle in free hand. Draw its one diameter. Shade its semicircles differently.

Ans. Do it yourself.

G. Can you tell the diameter and the radius of circles in the following figures?



Diameter = 4 cm
Radius = 2 cm



Diameter = 10 cm
Radius = 5 cm

H. Fill in the blanks.

- The boundary of a circle is called its circumference.
- The longest chord of a circle is called diameter of the circle.
- The radius of a circle is half of its diameter.
- The fixed point from which every point on the circle is at equal distance is called the centre of the circle.
- All the diameters of a circle are of equal length.

FUN ZONE

Coins-Coins

A. Instructions:

Six coins start out in the triangular shape shown in the following figure 1. They are to be moved into the six-sided shape as shown in the following figure 2.

To move a coin, you must slide it so that it does not disturb any other coin and so that it ends up touching two other coins. The coins must stay flat on the surface at all times.

Can you rearrange the coins as required, using only four moves?



Figure 1



Figure 2

B. A triangle of coins is made as in the following figure 3. Find the smallest number of coins that have to be moved to turn the triangle pattern upside down as shown in the following figure 4.

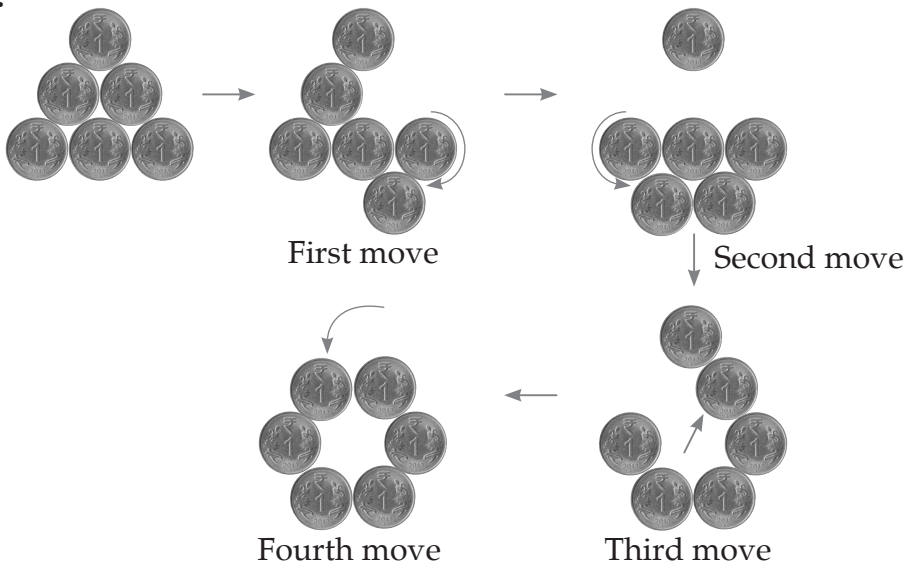


Figure 3

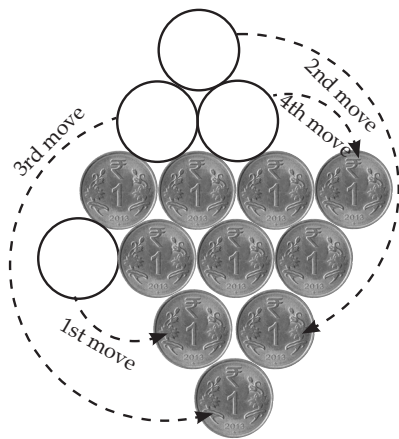


Figure 4

Hint: A.



Hint: B.



PUZZLE

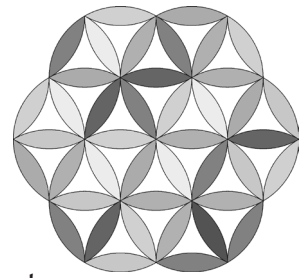
How many circles are there in this design?

7 circles

Can you count the number of coloured leaves?

Yes, 42 strips

Make your own circular designs using coins, bangles, a pair of compasses, etc.



PERIODIC TEST 2

A. Tick (✓) the correct answer.

1. 4,68,057 when divided by 1,000 gives the remainder
 (a) 46 (b) 468 (c) 57 (d) 570
2. $[29,552 + 41,758] + 64,041 = 29,552 + [41,758 + \underline{64,041}]$
 (a) 64,410 (b) 64,041 (c) 29,552 (d) 41,758
3. The correct division algorithm is
 (a) Divisor \times Quotient + Remainder = Dividend
 (b) Divisor + Quotient \times Remainder = Dividend
 (c) Divisor \times Remainder + Quotient = Dividend
 (d) Divisor \times Quotient = Dividend + Remainder
4. The smallest prime number is
 (a) 1 (b) 2 (c) 3 (d) 5
5. A ray has
 (a) one end point (b) two end points
 (c) no end point (d) none of these

B. Write True or False.

1. A chord that divides a circle into two equal halves is called its diameter. True
2. Dividing a number by 0 is not defined. True
3. The smallest composite number is 9. False
4. A polygon can have two line segments. False

C. Write the following in expanded form:

1. 36,078
2. 5,45,905

Ans. 1. $30,000 + 6,000 + 0 + 70 + 8$ 2. $5,00,000 + 40,000 + 5,000 + 900 + 0 + 5$

D. Find the sum:

$$16,923 + 33,951 + 50,613$$

Ans. 1,01,487

E. Multiply:

$$26,147 \times 20$$

Ans. 5,22,940

F. Check whether the second number is a multiple of the first one.

1. 4, 682

2. 7, 835

Ans. 1. No

2. No

G. Give two examples of twin primes.

Ans. 3; 5, 11; 13

H. Simplify:

$$100 - 50 \times 4 \div 2 + 3$$

Ans. 3

I. Name the points that lie:

1. In the interior of $\angle XYZ$.

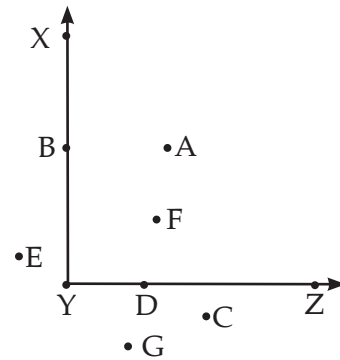
Ans. A, F

2. In the exterior of $\angle XYZ$.

Ans. C, G, E

3. On the $\angle XYZ$.

Ans. X, B, Y, D, Z



J. Answer these questions.

1. If the cost of 5 pens is ₹100, how many pens can we buy worth ₹20?

Ans. one

2. The radius of a circle is 6 cm. Find its diameter.

Ans. 12 cm

3. List five numbers which are divisible by 5 but not by 10.

Ans. 15, 25, 35, 45, 55, etc.

**SOCIAL
STUDIES – 4
SEMESTER**

1

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1. India—Our Motherland

ANSWERS

WARM UP

The seven states of India together in the North-eastern part of India are called the 'Seven Sisters'. Which of the following seven states form it? Tick (✓) the right map.



CHECK POINT

Fill in the blanks with the information from the text.

1. India is the seventh largest country in the world.
2. Sri Lanka and India are separated by Palk Strait.
3. The Tropic of Cancer passes through the middle of India.
4. The southernmost tip of the whole country is the Indira Point.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. The Andaman and Nicobar Islands are situated in the
(a) Indian Ocean (b) Bay of Bengal (c) Arabian Sea
2. Which one is not a Union Territory?
(a) Chandigarh (b) Puducherry (c) Sikkim

B. Write True or False.

1. India is surrounded by the Pacific Ocean. False
2. Bhutan is a neighbouring country of India. True
3. India is officially known as the Republic of Bharat. False

C. Answer these questions.

1. Name the neighbouring countries of India.

Ans. China, Nepal, Bhutan, Bangladesh, Sri Lanka, Pakistan and Afghanistan.

2. How is a Union Territory different from a State?

Ans. The Union Territories are governed by the central government but the states are

governed by state governments elected by the people of the states.

3. What are the main physical divisions of India?

Ans. The main physical divisions of India are the Northern Mountains, the Northern Plains, the Western Desert, the Southern Plateaus, the Coastal Plains and the Islands.

THINK AND ANSWER

D. If you travel from Kanniyakumari to Kashmir (in a straight line), what changes in temperatures would you feel?

Ans. Hint: From warm-wet to dry hot, cold to extreme cold.

LET US DO

E. Telangana is the 28th state of India. Collect important information about this new-born state.

Ans. Hint: Visit: www.telangana.gov.in

VALUE CORNER

F. How is India a shining example of 'Unity in Diversity'? Explain by giving examples.

Ans. Do it yourself.

2. India—The Northern Mountains

ANSWERS

WARM UP

Tick (✓) the correct name of the person in the picture.

1. Tenzing Norgay
2. Bachendri Pal



CHECK POINT

Answer these questions.

1. What does the word, 'Himalaya' mean?

Ans. Home of Snow.

2. What is the second highest mountain peak in the Himalayas?

Ans. K2.

3. What is the Lower Himalayas known as?

Ans. Shiwalik.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. The Greater Himalayas is known as the

(a) Himadri (b) Himachal (c) Shiwalik

2. The foothills of the Shiwalik are known as the

(a) Purvanchal (b) Terai (c) Karakoram

B. Answer these questions.

1. What is the extent of the Himalayan mountain ranges?

Ans. The Himalayan mountain ranges extend to a distance of about 2500 km from west to east.

2. Which are the three mountain ranges in the Himalayas?

Ans. The Greater Himalayas, the Lesser Himalayas and the Lower Himalayas.

3. What are the uses of forests in the Himalayan mountains?

Ans. The forests provide us with wood and medicines.

4. In what ways are the Himalayan mountains useful to us?

Ans. 1. The high mountain ranges act as a natural barrier against invaders.

2. The ranges protect us from the cold winds coming from the far north.

3. They check the monsoon winds coming from the Arabian Sea and the Bay of Bengal, and thus provide heavy rainfall.

4. Many rivers originate from the glaciers in the mountains.
5. The forests on the mountains provide us with wood.
6. Dams, which are built across many rivers, help in producing electricity.

THINK AND ANSWER

C. What is the economic importance of a hill station? Discuss in the class.

Ans. Hint: Tourism.

LET US DO

D. Project

Mountains, all over the world, have been a source of different adventurous sports. Collect a few pictures of them and paste them in your scrapbook.

Ans. Do it yourself.

LIFE SKILLS

E. What are the precautions one should take while climbing a mountain?

Ans. One should wear a proper helmet and oxygen mask and equipment while climbing a mountain.

3. India—The Northern Plains

ANSWERS

WARM UP

Match the states with their capitals.

State	Capital
1. Uttar Pradesh	(a) Chandigarh
2. Bihar	(b) Kolkata
3. Punjab	(c) Patna
4. West Bengal	(d) Lucknow

CHECKPOINT

Tick (✓) the correct options.

1. The area watered by a river and its tributaries is called (river basin✓/river source).
2. The Bhakra Dam is built on the (Ganga/Satluj✓).
3. The Brahmaputra originates near the (Gangotri Glacier/Mansarovar Lake✓).

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. This is the tributary of the Satluj.

(a) Gomti

(b) Beas

(c) Ghaghra

2. The dam built on the Satluj is

(a) Mahanadi

(b) Bhakra

(c) Hirakud

3. The branch of the Ganga in Bangladesh is called the

(a) Krishna

(b) Padma

(c) Hugli

B. Match the columns.

Column A

Column B

1. The Brahmaputra

(a) Kolkata

2. The Hugli

(b) Prayagraj (Allahabad)

3. The Ganga

(c) Tsangpo

C. Answer these questions.

1. Into which three river basins can the Northern Plains of India be divided?

Ans. The Satluj River Basin, the Ganga River Basin and the Brahmaputra River Basin.

2. Why is the Bhakra Dam so important for us?

Ans. The Bhakra Dam helps in irrigation and in producing electricity.

3. Why are the Northern Plains of India thickly populated?

Ans. The Northern Plains are fertile and help to produce a good amount of foodgrains.

THINK AND ANSWER

D. You have learnt that the rivers flowing into the Northern Plains are the lifeline of India's economy. But excessive economic activities are polluting the rivers. Do you think the river pollution will affect the lifestyle of the people living in the Northern Plains? Discuss in the class.

Ans. Hint: Yes, pollution affects agriculture and other things.

LET US DO

E. Project

Have you heard of the Ganga Action Plan? What is it? Collect information about it.

Ans. Hint: Visit site www.moef.nic.in/sites/default/files/ngrba/index.html

LIFE SKILLS

F. If you hear about the warning of a flood, what should you do? Tick (✓) the correct answer.

(a) I should go to the river to see it.

(b) I should take my family to a safer place.

4. India—The Western Desert

ANSWERS

WARM UP

Which animal is called the 'Ship of the Desert'? Tick (✓) the correct one.



CHECKPOINT

Cross (X) the wrong statements.

1. The Tapti or the Tapi flows through the Thar Desert.
2. Some part of the Thar Desert is rocky.
3. The Rajasthan Canal supplies water from the Satluj river.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. This river flows through the Thar Desert.

(a) Luni

(b) Satluj

(c) Indus

2. The temperature at night in the Thar Desert is

(a) hot

(b) comfortable

(c) cold

B. Give one word for each of the following.

1. A small hill of sand:

Dune

2. A fertile area in the desert where underground water is available:

Oasis

3. A group of camels moving across the desert:

Caravan

C. Answer these questions.

1. What is the extent of the Great Indian Desert?

Ans. The Thar Desert or the Great Indian Desert is located towards the west of the Northern Plains of India.

2. What are sand dunes and how do they shift from one part of a desert to another?

Ans. Low hills of sand are called sand dunes. Strong wind shifts them.

3. How is a camel useful?

Ans. Camels help in the transport of people and goods in the desert.

THINK AND ANSWER

D. *Baoris* or *bers* are community wells, found in Rajasthan, that are used mainly for drinking water. Most of them are very old. They were built by the *banjaras* (mobile trading communities) for their drinking water needs.

Discuss the practice of 'community wells' to save water in different parts of the country where drinking water is not available so easily.

Ans. Do it yourself.

LET US DO

E. Activity

Collect information on how people of Alwar have made the desert green. Write a few points on your own to save water.

Ans. Do it yourself.

LIFE SKILLS

F. Imagine you are visiting Rajasthan and staying in a hotel. What should you do?

(a) Use water as much as you want because you are paying the hotel for it.

(b) Minimise the use of water as far as possible.

5. India—The Southern Plateaus

ANSWERS

WARM UP

Why do the Nilgiri Hills look blue?

Ans. The Nilgiri Hills are called the Blue Mountains because they look blue due to scattering of light. The blue colour is also attributed to bluish flowers of Kurinji shrubs.

CHECKPOINT

Answer the questions orally.

1. Name the capital of Jharkhand.

Ans. Ranchi.

2. Name the capital of Odisha.

Ans. Bhubaneshwar.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. The Satpura Range lies between these two rivers.

(a) The Ganga-Yamuna

(b) The Narmada-Tapi

(c) The Narmada-Krishna

2. This is the longest river in the Deccan Plateau.

(a) Narmada

(b) Krishna

(c) Godavari

B. Answer these questions.

1. What is the location of the Central Highlands?

Ans. The Central Highlands are towards the north of the Narmada river.

2. Describe the location and extent of the Southern Plateaus.

Ans. The Southern Plateaus are towards the south of the Narmada river.

3. Name the tributaries of the Ganga which join it in the Southern Plateau region.

Ans. Chambal, Betwa and Son.

THINK AND ANSWER

C. Why is the rock in the Deccan Plateau so hard?

Ans. Hint: Rock is made of lava.

LET US DO

D. Project

Collect more information about the geographical aspects of Telangana.

Ans. Hint: Visit the site www.telangana.gov.in

PERIODIC TEST 1

A. Tick (✓) the correct answers.

- The land boundary of India is about
(a) 15,200 km (b) 15,800 km
(c) 17,200 km (d) 18,300 km
- Which of the following is not in Purvanchal?
(a) The Khasi Hills (b) The Naga Hills
(c) The Aravalli Hills (d) The Mizo Hills
- The main tributary of the Satluj river is
(a) Ravi (b) Beas
(c) Yamuna (d) Jhelum
- The Thar Desert is surrounded by which river in the north-west?
(a) Satluj (b) Narmada
(c) Indus (d) Luni
- Which is the longest river in the southern plateau region?
(a) Kaveri (b) Godavari
(c) Periyar (d) Tapi/Tapti

B. Fill in the blanks.

- India is the seventh largest country in the world.
- India has 28 states and 9 union territories.
- The capital of Himachal Pradesh is Shimla.
- The Rann of Kachchh is towards the south of the Thar Desert.
- The Satpura mountain range lies between the Narmada and the Tapi/Tapti rivers.

C. State whether True or False.

- A continent is a small landmass. False
- Rajasthan is the largest state in India. True
- Bihu is the main festival of Bihar. False
- The Western Desert is also called the Thar Desert. True
- The Jog Falls are in the Nilgiri Hills in Tamil Nadu. False

D. Match the following.

Column A

1. Itanagar is the capital of
2. Shillong is the capital of
3. The largest delta in the world is the
4. The eastern edge of the Deccan Plateau is called the
5. Jaipur is also called the

Column B

- (a) Meghalaya.
- (b) Pink City.
- (c) Sundarbans.
- (d) Eastern Ghats.
- (e) Arunachal Pradesh.

E. Answer the following questions.

1. Describe the location of India.

Ans. India is located in the Northern Hemisphere and in the southern part of Asia.

2. How are the Himalayan mountains useful to us?

Ans. The Himalayan mountain ranges are useful to us in many ways:

- (a) The high mountain ranges act as a natural barrier against invaders.
- (b) The ranges protect us from the cold winds coming from the far north.
- (c) They check the monsoon winds coming from the Arabian Sea and the Bay of Bengal, and thus provide heavy rainfall.
- (d) Many rivers originate from the glaciers in the mountains.
- (e) The forests on the mountains provide us with wood.
- (f) Dams, which are built across many rivers, help in producing electricity.

3. Why are the Northern Plains a very fertile region?

Ans. The Northern Plains have been formed by the deposition of gravel, sand, clay and silt, brought by the rivers coming from the mountains. The fine silt is very fertile and is called alluvium.

4. What is the importance of an oasis in a desert?

Ans. Oasis is a source of water for the people, plants and animals living near it.

5. What is the extent and location of the Central Highlands?

Ans. The area towards the north of the Narmada is called the Central Highlands. It is bound by the Aravalli range in the north-west, the Vindhya range in the south and Bundelkhand in the east. In the east, the Central Highlands extend up to the Chota Nagpur Plateau in Jharkhand and Odisha.

6. India—The Coastal Plains and Islands

ANSWERS

WARM UP

Can you name this famous dance?



Ans. Kathakali dance

CHECKPOINT

Fill in the blanks with the information from the text.

1. The word 'kerala' means 'Land of coconuts'.
2. The Marina Beach is the longest beach in India.
3. Auroville is known for Matri Mandir and Aurobindo Ashram.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. The _____ of India is surrounded by the Coastal Plains.
(a) Northern Mountains (b) Eastern Mountains (c) Deccan Plateau
2. The Eastern Coastal Plain starts in the north from
(a) Odisha (b) West Bengal (c) Tamil Nadu
3. The Paradeep port is in
(a) Odisha (b) Goa (c) Andhra Pradesh

B. Answer these questions.

1. Describe the location of the coastal plains in India.

Ans. India has two coastal plains—Western and Eastern Coastal Plains. The area between the Western Ghats and the Arabian Sea is the Western Coastal Plain and the area between the Eastern Ghats and the Bay of Bengal is the Eastern Coastal Plain.

2. Write the differences between Lakshadweep and the Andaman and Nicobar islands.

Ans. The Andaman and Nicobar group of islands is situated in the Bay of Bengal. It consists of 265 big and small islands. Out of them, about 38 islands are inhabited. Most of the islands are mountainous.

The Lakshadweep group of islands is located in the Arabian Sea. It consists of 27 islands, out of which only 11 are inhabited. These islands are flat and are of coral origin.

THINK AND ANSWER

C. The Coastal Plains of India are thickly populated. Why? Discuss in the class.

Ans. Hint: Plain and fertile land suitable for all human activities.

LET US DO

D. Project

Visakhapatnam is an important seaport of India. With the help of the Internet, find out the names of the goods that the port handles.

Ans. Hint: Visit site www.vizagport.com/Favourites/PhotoGallery.aspx

LIFE SKILLS

E. Bathing in the sea is an important part of one's tour to a sea beach. You should follow a few safety rules during and after the sea bath. A few are given here.

1. Do not take bath where there are big rocks.
2. Do not go too far from the beach.
3. Use a swimming tube.
4. Take a bath with soap in freshwater after taking a bath in the sea.

7. India—The Climatic Conditions

ANSWERS

WARM UP

1. Name the hottest place in India.

Ans. Palodhi in Rajasthan (51°C).

2. Name the coldest place in India.

Ans. Dras in Jammu and Kashmir (–23°C).

CHECKPOINT

Tick (✓) the right options.

1. (Rainfall✓/River) is an element of climate of a country.
2. Dras in Jammu and Kashmir is the (hottest/coldest✓) place in India.
3. The (northern/southern✓) part of India does not experience distinct winter.
4. Kalbaisakhi is experienced in (West Bengal✓/Rajasthan).
5. In India, monsoon has (one/two✓) branches.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. Which one affects the climate of an area?

(a) Mountain (b) Seaport (c) Airport

2. In this region of India, the climate is mild throughout the year.

(a) Northern (b) North-western (c) South-eastern

B. Give one word for each of the following.

1. The average condition of weather over a large area:

Climate

2. Experiencing different seasons at regular intervals:

Season cycle

3. A strong wind from the west (Europe):

Western Disturbance

C. Answer these questions.

1. What is the role of monsoon winds in the climate of India?

Ans. The monsoon winds are very important for us. The rainfall in India depends on them. India's agriculture depends on rainfall.

2. What are the two branches of the monsoon winds?

Ans. (i) Arabian Sea branch (ii) Bay of Bengal branch

THINK AND ANSWER

D. Why is monsoon so important for India?

[Hint: Monsoon is called the real Finance Minister of India.]

Ans. Do it yourself based on the hint provided.

LET US DO

E. Activity

Collect 15 December's (of any year) weather report of Ladakh and Chennai from the newspaper/radio broadcast and compare them.

Ans. Do it yourself.

LIFE SKILLS

F. Cyclones are very dangerous. If you hear a warning about a cyclone, what should you do?

1. Become panicky and run away from the house.

2. Remain calm and listen to the government instructions.

8. India—Forests and Wildlife

ANSWERS

WARM UP

Tick (✓) the tree that grows on mountains.



CHECKPOINT

Answer these questions.

1. In which type of forest does the rosewood grow?

Ans. Evergreen Forest.

2. Name a tree that grows in the tidal forests.

Ans. Sundari.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. These forests are found in hot or humid areas.

(a) Deciduous

(b) Evergreen

(c) Thorn

2. An important desert tree is

(a) rosewood

(b) babul

(c) pine

B. Give one word for each of the following.

1. The animals which live in jungles/forests:

Wild animals

2. The festival of planting trees during the monsoon period:

Vanamahotsava

3. A species which no longer exists:

Extinct

C. Answer these questions.

1. Name any three trees that grow in thorn forests.

Ans. Babul, palm and kikar.

2. Name the main coniferous trees.

Ans. Pine, cedar, fir and chir.

THINK AND ANSWER

D. Discuss how we can plant more trees.

Ans. Do it yourself.

LET US DO

E. Complete the table.

Name of National Parks/ Wildlife Sanctuaries	States	Animals Conserved
Kanha National Park	Madhya Pradesh	Tiger, leopard, etc.
Gir Wildlife Sanctuary	Gujarat	Indian lion, sloth bear, etc.
Ranthambore Wildlife Sanctuary	Rajasthan	Tiger, hyaena, wild boar, etc.

VALUE CORNER

F. Should we buy products made from the body parts of wild animals?

(a) Yes

(b) No

9. India—Types of Soils

ANSWERS

WARM UP

Which of the following lives under the soil? Write 'S' for it in the box below.



CHECKPOINT

Answer these questions.

1. What are the materials that make up soil?

Ans. Sand, clay and organic matter.

2. What kind of soil is found in the delta of the Godavari river?

Ans. Alluvial soil.

3. What is the other name of the black soil?

Ans. Regur soil.

4. From which rocks is red soil formed?

Ans. Igneous rocks.

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. This type of soil is rich in humus.

(a) Mountain

(b) Laterite

(c) Alluvial

2. Mountain soil is good for the production of

(a) wheat

(b) jute

(c) tea

B. Name the soil type that is

1. formed from lava rocks: Black soil

2. formed due to leaching: Laterite soil

3. found on hill slopes: Mountain soil

C. Answer these questions.

1. Where is alluvial soil found?

Ans. The Northern Plains and deltas.

2. How important is alluvial soil for food production?

Ans. Since it is the most fertile soil, it is important for food production.

3. How can we conserve soil?

Ans. We can conserve soil by planting more trees, following crop rotation, controlling over-grazing, etc.

THINK AND ANSWER

D. If the farmers of Rajasthan want to produce rice in their fields, what steps should they take? Write in points.

Ans. Hint: They should use irrigation from canals.

LET US DO

E. Survey

Visit any field and talk to the farmers. Ask them the following questions.

1. Which crops do they like to grow?
2. What kind of manure/fertiliser do they use?
3. What do they do to enhance the fertility of their fields?
4. Do they practise crop rotation?
5. Which crop gives the highest yield?

Ans. Do it yourself.

VALUE CORNER

F. Tick (✓) the bad habit.

(a) Rohan plants trees on the edge of the ponds to check soil erosion.

(b) Rohit throws soil into the ponds and drains.

10. India—Water Resources

ANSWERS

WARM UP

Which of the sources of water can the farmers use for cultivation? Write 'C' in the boxes below.



The first image and third image.

CHECKPOINT

Write True or False for each of the following.

- | | |
|---|--------------|
| 1. Water is a man-made resource. | <u>False</u> |
| 2. About 33 per cent of the total water found on the Earth is salty. | <u>False</u> |
| 3. India does not receive the same amount of water everywhere. | <u>True</u> |
| 4. The irrigation system refers to the supply of drinking water to homes. | <u>False</u> |

CHECK YOUR STUDY

A. Tick (✓) the correct answers.

1. Electricity is generated from it.

(a) Well (b) Tubewell (c) Dam

2. The type of irrigation mostly practised in South India is called

(a) well (b) pipe (c) tank

B. Write the differences between the following.

1. Fresh water and Salt water

Ans. Fresh water: Fresh water is the water that has less amount of dissolved salt in it. Fresh water can be drunk, used in agriculture and in factories. Rivers, lakes, ponds, wells, etc., are the sources of fresh water.

Salt water: Salt water is the water that has a high amount of dissolved salts in it. Salt water cannot be drunk, used in agriculture and in factories. Salt water is used to produce salt. The main sources of salt water are oceans, seas, bays, lakes, etc.

2. River and Canal

Ans. River: A river is a natural source of fresh water. It has an origin, a long course and a confluence which are natural. Rivers create different landforms in their different courses.

Canal: A canal is an artificial stretch of water. It is dug from a river or any other source to facilitate water transport, agriculture, drinking water supply, etc.

C. Answer these questions.

1. Name any three traditional means of irrigation.

Ans. Persian wheel, ponds and tubewells.

2. Which kind of well uses pumps to bring up water?

Ans. Tubewell

3. What are the sources of fresh water on the Earth?

Ans. Lakes, rivers, ponds, wells, tubewells, etc.

THINK AND ANSWER

D. How does rainwater harvesting help save water?

Ans. Hint: Rainwater harvesting helps use the rainwater that generally goes waste.

P	O	N	D	Q	R	S	T	U	V	W	T	L	M	O
Q	E	Q	A	P	V	T	R	A	L	C	U	U	C	P
R	X	R	M	T	M	U	S	B	M	D	V	V	A	Q
S	Y	T	S	Q	N	L	T	C	N	E	T	A	N	K
T	U	B	E	W	E	L	L	D	O	U	W	W	A	R
U	L	V	D	E	A	N	V	F	B	F	X	X	L	S
V	M	W	L	L	P	N	W	E	P	G	Y	Y	Z	T
W	N	X	M	L	Q	O	W	G	Q	H	Z	Z	M	N
X	O	Y	N	U	Z	E	X	H	R	I	A	Z	O	P
Y	P	Z	N	W	L	P	X	I	E	J	B	T	L	M
Z	Q	D	O	L	X	Q	Z	J	S	E	C	U	S	T
A	C	E	G	H	K	L	M	T	U	V	L	S	N	O

LET US DO

E. Activity

Find words related to different types of irrigation practised in India from the word-grid. Collect a picture of each one of them and paste it in your scrapbook.

VALUE CORNER

F. Write two suggestions to save water.

Ans. Do it yourself.

PERIODIC TEST 2

A. Tick (✓) the correct answers.

1. A land area which is surrounded by water on three sides is called a

(a) continent

(b) peninsula

(c) strait

(d) coast

2. Which of the following rivers does not flow through Gujarat?

(a) Narmada

(b) Kaveri

(c) Sabarmati

(d) Tapi

3. Loo is experienced during the
- | | | | |
|-------------------|-------------------------------------|-------------------|--------------------------|
| (a) summer season | <input checked="" type="checkbox"/> | (b) autumn season | <input type="checkbox"/> |
| (c) winter season | <input type="checkbox"/> | (d) rainy season | <input type="checkbox"/> |
4. Coniferous trees mostly grow in the
- | | | | |
|---------------|-------------------------------------|-------------------|--------------------------|
| (a) deltas | <input type="checkbox"/> | (b) deserts | <input type="checkbox"/> |
| (c) mountains | <input checked="" type="checkbox"/> | (d) coastal areas | <input type="checkbox"/> |
5. The main source of fresh water in India is in the form of
- | | | | |
|------------|-------------------------------------|------------|--------------------------|
| (a) rain | <input checked="" type="checkbox"/> | (b) rivers | <input type="checkbox"/> |
| (c) canals | <input type="checkbox"/> | (d) wells | <input type="checkbox"/> |

B. Fill in the blanks.

- Black soil is locally called the regur soil.
- The Indira Gandhi Canal is located in the state of Rajasthan.
- Mangrove forests are also called the tidal forests.
- Mawsynram in Meghalaya is the wettest place in the world.
- Mizoram means the land of the hill people.

C. State whether True or False.

- | | |
|---|--------------|
| 1. The Rajasthan Canal is the longest canal in Asia. | <u>False</u> |
| 2. Minicoy is the largest island in the Nicobar group of islands. | <u>False</u> |
| 3. Soil formation is a very slow process. | <u>True</u> |
| 4. The Gir Forests are a home to the African lion. | <u>True</u> |
| 5. The Union Territory of Lakshadweep is in the Arabian Sea. | <u>True</u> |

D. Match the following columns.

- | Column A | Column B |
|--------------------------------------|--|
| 1. India is the | (a) about 8611 metres. |
| 2. The height of K2 is | (b) smallest state in India. |
| 3. Goa is the | (c) the mangrove forests. |
| 4. The tidal forests are also called | (d) due to the presence of iron in it. |
| 5. The red colour of the soil is | (e) second most populous country in the world. |
-

E. Answer the following questions.

- Name one tourist attraction each from any two states of the Southern Plateaus.

Ans. The Jog Falls in Karnataka and Pachmarhi, the hill station in Madhya Pradesh.

- How are dams useful to us?

Ans. Dams are used for storing water and producing electricity.

3. Name the different types of soil found in India.

Ans. Alluvial soil, black soil, red soil, laterite soil, desert soil, mountain soil.

4. What is the main role of the wildlife sanctuaries in India?

Ans. Conservation of wildlife.

5. What is the difference between weather and climate?

Ans. The conditions of the atmosphere in one area at a particular time is called weather. The average conditions of weather of a large area for a long time is called the climate of that area.

ANSWERS

SCIENCE-4
SEMESTER

1

Food Making in Plants



ANSWERS

WARM UP

Leaves make food and flower turns into fruit.

CHECKPOINT 1

Fill in the blanks.

1. The tubes that carry water and minerals from the roots to the leaves are called Xylem.
2. Chlorophyll makes the leaves look green.
3. Stomata help in the exchange of gases during photosynthesis.

CHECKPOINT 2

Write True or False.

1. Mushroom is a nongreen plant. True
2. Animals get their food from plants. True
3. Animals breathe out oxygen. False
4. National parks are built to grow more plants. False
5. Plants and animals depend on each other. True

CHECK YOUR STUDY

A. Fill in the blanks.

1. The leaves are called food factories of plants.
2. The inside of leaf can be seen with the help of a microscope.
3. Oxygen and water vapour are released during photosynthesis.
4. Starch gives blue-black colour with iodine solution.

B. Give one word for each of the following.

1. The green and flat part of a leaf Leaf blade
2. The sugar made in the leaf Glucose
3. Extra food stored in plants Starch

C. Give two examples for each of the following.

- | | | |
|---|----------------------|----------------------|
| 1. Insectivorous plants | <u>Pitcher plant</u> | <u>Venus flytrap</u> |
| 2. Heterotrophic plants | <u>Mould</u> | <u>Mushroom</u> |
| 3. Plants with leaves other than green colour | <u>Croton</u> | <u>Coleus</u> |

D. Tick (✓) the correct answers.

- The green pigment in the leaves of a plant is
(a) haustoria (b) xylem
(c) chlorophyll (d) stoma
- The food made in leaves is carried to all other parts of plant by
(a) phloem (b) xylem
(c) root hair (d) flowers
- Which of these is an insectivorous plant?
(a) Cactus (b) Mushroom
(c) Money plant (d) Pitcher plant
- The process of making food in plants is called
(a) stomata (b) photosynthesis
(c) transportation (d) digestion

E. Answer these questions.

1. What are different parts of a leaf?

Ans. Different parts of a leaf are leaf blade or lamina, leaf apex, midrib and side veins.

2. What is photosynthesis?

Ans. Photosynthesis is a process by which green plants make their food in the presence of chlorophyll and sunlight by using carbon dioxide and water.

3. What are the materials used by plants during photosynthesis?

Ans. Plants use carbon dioxide, water and sunlight during photosynthesis.

4. Write down the equation of photosynthesis.

Ans. Carbon dioxide + Water $\xrightarrow[\text{Chlorophyll}]{\text{Sunlight}}$ Glucose + Oxygen + Water vapour

5. What are the uses of the food made by the plants?

Ans. The food made by plants is used for growth and building new cells, and to repair worn-out cells.

6. Why does Venus flytrap eat insects?

Ans. Venus flytrap grows in the soil which is poor in minerals. So, it traps insects to get the required minerals.

7. How do plants and animals depend on each other?

Ans. (a) Animals breathe out carbon dioxide which is used by plants for making food while in turn, plants release oxygen which is used by animals for breathing.

(b) Animals get food from plants and when they die, they become part of the soil and make it rich in minerals which are used by plants.

8. What will happen if there are more animals than plants in nature?

Ans. If there are more animals than plants in nature, there will be shortage of food and oxygen, and the amount of carbon dioxide will increase in the atmosphere. This increase will warm the atmosphere.

F. Plants and gold fish are grown together in a fishbowl. Why?

Ans. Plants give oxygen to breathe and in turn gold fish breathe out carbon dioxide which is used by plants for photosynthesis.

G. Mushrooms cannot make their own food. Why?

Ans. Mushrooms are non-green plants. They do not contain chlorophyll, therefore, they cannot make their own food.

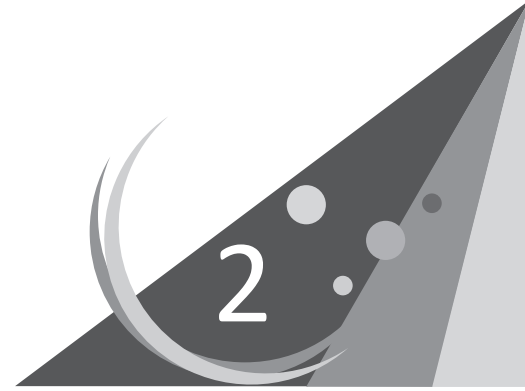
H. The leaves of croton and coleus plants are not green, but carry out photosynthesis. How?

Ans. The leaves of croton and coleus plants carry out photosynthesis because they also have chlorophyll but, it is masked by other pigments and is not visible.

I. The yellow portion of a leaf cannot prepare food. Why?

Ans. The yellow portion of a leaf cannot prepare food because it does not contain chlorophyll.

Adaptations in Plants



ANSWERS


WARM UP

This plant grows in water.

CHECKPOINT 1

Tick (✓) the correct answers.

1. In desert plants like cactus, photosynthesis occurs in
(a) stems (b) spines (c) roots (d) leaves

2.  plant grows in

- (a) deserts (b) marshy areas
(c) plains (d) hills
3. Which of these plants grows on mountains and hills?
(a) Fir (b) Banyan
(c) Peepal (d) Mango

CHECKPOINT 2

Fill in the blanks.

1. Tape grass/Hydrilla plant does not have stomata on its leaves.
2. Lotus/Lily is a plant with stomata present only on the upper surface.
3. Duckweed/Water lettuce/Water hyacinth is an aquatic plant which is not rooted to the soil on the waterbed.

CHECK YOUR STUDY

A. Write True or False.

1. The lotus flower grows on land. False
2. Cacti have big and broad leaves. False
3. A large number of leaves help in keeping the big trees cool in summer. True
4. Trees on hills bear cones instead of flowers. True
5. Babool plant grows in water. False

B. Tick (✓) the correct answers.

- The place where a plant lives and grows is called its
(a) habitat (b) habit
(c) plains (d) environment
- The plants growing and living in water are called
(a) aquatic plants (b) desert plants
(c) marshy plants (d) hilly plants
- Leaves of fixed-floating plants have
(a) stomata on their upper surface (b) stomata on their lower surface
(c) stomata on both the surfaces (d) no stomata

C. Give two examples of the following.

- | | | |
|-----------------------------|---------------|-------------------|
| 1. Hilly plants | <u>Cedar</u> | <u>Spruce</u> |
| 2. Plants with broad leaves | <u>Banyan</u> | <u>Peepal</u> |
| 3. Fixed-floating plants | <u>Lotus</u> | <u>Water lily</u> |
| 4. Desert plants | <u>Cactus</u> | <u>Babool</u> |

D. Identify the following plants.

- | | |
|--|----------------------------|
| 1. A plant which has breathing roots | <u>Mangrove plant</u> |
| 2. A plant that bears cones | <u>Pine</u> |
| 3. A plant that has spines | <u>Cactus</u> |
| 4. A plant that has no stomata | <u>Tape grass/Hydrilla</u> |
| 5. An aquatic plant that has beautiful flowers | <u>Lotus/Waterlily</u> |

E. Answer these questions.

- What do you understand by adaptations in plants?

Ans. The special features that allow a plant to live in a particular place are called adaptations in plants.

- What are the conditions that make plants different from each other?

Ans. Type of soil in which plants grow, temperature and rainfall of the area make plants different from each other.

- How are terrestrial plants different from aquatic plants?

Ans. Terrestrial plants are adapted to live on many types of terrestrial habitat. They have different shapes and sizes. Their roots, stem and leaves can store food and water where required.

Aquatic plants are adapted to live in water. Most aquatic plants are small, light and have waxy coating on their leaves. They have very few or no stomata.

- How do (a) banyan and (b) hydrilla plants adapt themselves to their habitats?

Ans. (a) Banyan grows in plains. It has big and broad leaves which help in transpiration and keep it cool-during summer. It sheds its leaves in winter and grows new leaves in spring.

(b) Hydrilla plant grows under water. It has thin and flexible stem with narrow leaves. These leaves do not have stomata. It breathes through its body surface.

5. How are free-floating plants different from fixed-floating plants?

Ans. Free-floating plants are small and not rooted to the soil on the waterbed. They have air-filled spaces in their root, stems and leaves. This makes them spongy and light which help in floating.

Fixed-floating plants are rooted to soil on the waterbed. Their stems are long, hollow and light-weight to help them float. They have broad and flat leaves with waxy coating on them. These leaves have stomata only on their upper surface.

6. What are the adaptations in a cactus plant?

Ans. Cactus grows in deserts where enough water is not available. So, to save water,

(a) Its stem becomes green, thick and fleshy.

(b) Its leaves get changed into spines.

7. What are submerged plants?

Ans. Plants growing under the surface of water are called submerged plants. For example, tape grass, hydrilla, etc.

F. A lotus plant cannot survive in a desert. Why?

Ans. A lotus plant is adapted to live in water. It has broad and flat leaves, long and hollow stem which do not suit to live in desert. In hot and dry habitat of desert, it will die.

G. The stem and leaves of aquatic plants do not rot. Why?

Ans. The stem and leaves of aquatic plants have waxy coating on them. So, they do not rot in water.

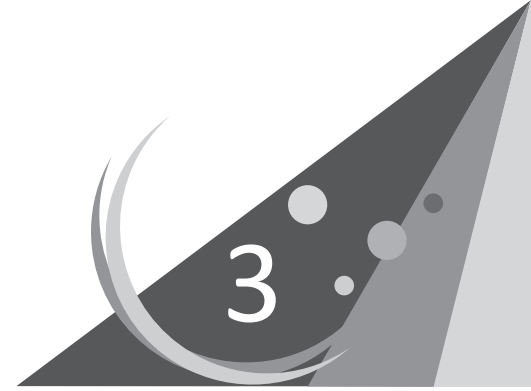
H. The submerged plants do not have stomata. Why?

Ans. The submerged plants breathe through their body surface. So, they do not have stomata.

I. Trees that grow in hills are conical in shape. Why?

Ans. The conical shape of the trees growing on hills helps them avoid harsh wind and saves from getting knocked down.

Adaptations in Animals



ANSWERS

WARM UP

This animal lives in snowy areas.

CHECKPOINT 1

Fill in the blanks.

1. Camels have padded feet to walk comfortably on loose sand.
2. Penguins huddle together to keep themselves warm.
3. Frogs breathe through their skin when in water and through lungs when on land.
4. Monkeys have strong arms to swing from branch to branch.
5. Birds have hollow bones to help them fly.

CHECKPOINT 2

Write True or False.

- | | |
|--|----------------|
| 1. Herbivores have sharp cutting teeth at the front. | <u> True </u> |
| 2. Mosquito is a parasite. | <u> True </u> |
| 3. A chameleon looks like a twig. | <u> False </u> |
| 4. Porcupine changes its colour for protection. | <u> False </u> |

CHECK YOUR STUDY

A. Fill in the blanks.

1. A snake has scales which help it to move.
2. Animals living in cold areas have fur on their bodies.
3. The strong arms of a monkey help it to swing on branches.
4. Parasites live on or inside the body of other animals.

B. Tick (✓) the correct answers.







1. Which of these is an adaptation of a duck to swim in water?
(a) Oily coating on feathers
(b) Moist skin
(c) Webbed feet
(d) Strong claws

2. Which of these animals is not an amphibian?
 (a) Frog (b) Salamander (c) Zebra (d) Toad
3. The ability to merge with the surroundings is called
 (a) Hibernation (b) Camouflage (c) Blubber (d) Habitat
4. Which of these animals uses scales on their bodies to move?
 (a) Bird (b) Snake (c) Tiger (d) Chameleon
5. Which of these is not a parasite?
 (a) Mosquito (b) Leech (c) Tapeworm (d) Snail

C. Write True or False.

1. A tiger can live in the desert. False
2. Birds have hollow bones filled with air. True
3. A cow is an omnivore. False
4. Fishes have gills to take in air mixed with water. True
5. Snakes hide during winter to protect themselves from extreme cold. True

D. Match the following.

1.		(a) Sharp teeth _____	2.	
		(b) Flat grinding teeth		
3.		(c) Sharp beak _____	4.	
		(d) Sucking tube		
5.		(e) Streamlined body _____	6.	
		(f) Moist skin		

E. Answer these questions.

1. Why do animals adapt themselves to their surroundings?

Ans. Animals adapt themselves to their surroundings for the survival.

2. List different groups in which animals are divided according to their habitat.

Ans. According to habitat, animals are divided into terrestrial animals, aquatic animals, amphibians, arboreal animals and aerial animals.

3. List the adaptations in a camel which help it to survive in desert.

Ans. A camel has following adaptations to survive in desert:

- (a) It has padded feet to walk easily on hot and loose sand.
- (b) It has flaps on nostrils and long eyelashes for protection from sand.
- (c) It has thick skin to protect from heat of the sun and loss of water by evaporation.

- (d) It can store large amount of water.
- (e) It has fat stored in its hump which is converted into water when needed.

4. How is the body of a fish adapted to live in water?

Ans. The body of a fish has following adaptations to live in water:

- (a) It has streamlined shape to cut through the water with less efforts.
- (b) It has gills to breathe in air dissolved in water.
- (c) Its body is covered with waterproof scales to protect from rotting in water.
- (d) It has fins to swim in water.

5. What are the differences between the teeth of herbivores and carnivores?

Ans. The teeth of herbivores are sharp, strong and flat for cutting and grinding of tough plant food, whereas the teeth of carnivores are long and sharp for tearing the flesh of their preys.

6. How is a chameleon able to protect itself from its enemies?

Ans. A chameleon changes its colour according to its surroundings to protect itself from its enemies.

7. What are parasites? Name some parasites.

Ans. The animals which live on or inside the body of other animals for getting food are called parasites. Mosquito, flea, louse, bug, tapeworm, roundworm, etc. are some parasites.

8. How does a polar bear survive in very cold places?

Ans. The body of polar bear is covered with thick fur. It has a layer of fat under the skin which keeps its body warm.

F. Why do tigers have strong legs and long sharp teeth?

Ans. Tigers have strong legs to run very fast for catching their prey. Their sharp teeth help them tear the flesh of prey.

G. Why do monkeys have long tails?

Ans. Monkeys are arboreal animals. Their long tails help them hold on to the branches.

H. A polar bear is white in colour. Why?

Ans. The white colour of polar bear makes it difficult to be spotted by its enemies on the snow.

I. Why do porcupines have spines?

Ans. Porcupines have spines on their bodies to protect themselves from their enemies.

Reproduction in Animals



ANSWERS

WARM UP

Birds make nest to lay their eggs and bring up their babies.

CHECKPOINT 1

Fill in the blanks.

1. The process by which living things produce their own kind is called reproduction.
2. Cats and dogs give birth to young ones.
3. Bat is the only mammal that can fly.

CHECKPOINT 2

Tick (✓) the correct word.

1. A female bird lays eggs in **nest** / **water**.
2. A fish's egg is covered by **hard shell** / **jelly** .
3. Snakes **take** / **do not take** care of their babies.
4. Tadpole looks like a **fish** / **frog** .
5. A **cockroach** / **butterfly** has three stages in its life cycle.

CHECK YOUR STUDY!

A. Fill in the blanks.


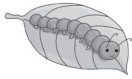


1. A tiny growing baby in an egg is called embryo.
2. The larva of a butterfly is called caterpillar.
3. The larva of a housefly is called maggot.
4. The young one of a frog is called tadpole.
5. The shedding of old skin by a nymph is called moulting.

B. Define the following.

1. Incubation
2. Moulting
3. Hatching

- Ans.** 1. Sitting on eggs by parent birds to hatch them by the warmth of the body is called incubation.
 2. Shedding of old skin by the nymphs of insects is called moulting.
 3. The coming out of a young chick from an egg after it is fully grown is called hatching.

C. Different stages in the development of different animals are given on the left. Match them with the appropriate picture.

1. Nymph	(a)	
2. Eggs	(b)	
3. Pupa	(c)	
4. Larva	(d)	

D. Answer these questions.

1. What is reproduction?

Ans. The process of producing their own kind by living things is called reproduction.

2. Why do animals reproduce?

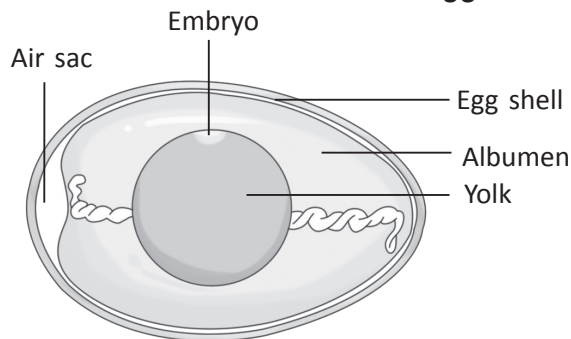
Ans. Animals reproduce to continue their own kind on the Earth.

3. What are the different ways by which animals reproduce?

Ans. Animals reproduce by giving birth to young ones or by laying eggs.

4. Draw the structure of a bird's egg and name its parts.

Ans.



Structure of a bird's egg

5. Describe the life cycle of a butterfly.

Ans. The life cycle of a butterfly has four stages – Egg, Larva, Pupa and Adult.

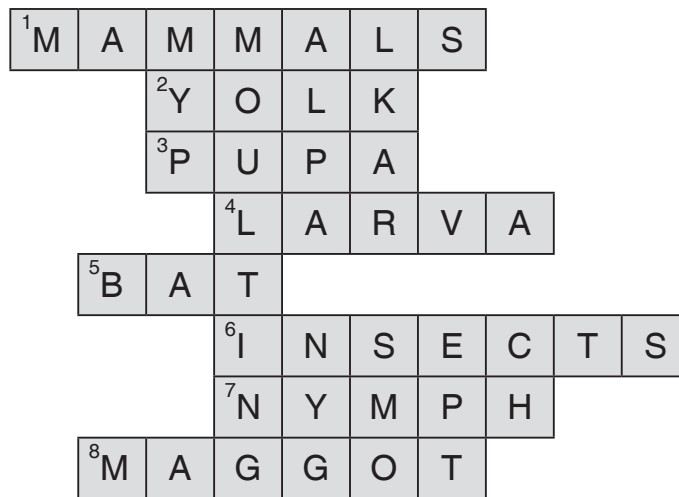
A butterfly lays eggs on the leaves of plants. An egg hatches into a larva called caterpillar. It feeds on leaves and covers itself in a cocoon. This stage is called pupa. Inside the cocoon, the caterpillar changes into an adult butterfly. The adult butterfly comes out by bursting pupa.

6. How do mammals take care of their young ones?

Ans. Mammals feed their babies. They keep them safe until they learn to look after themselves.

E. Solve the following crossword with the help of given clues.

1. Animals that give birth to young ones and feed them with their milk.
2. The yellow part of an egg.
3. The stage after larva in the life cycle of a butterfly.
4. The worm-like stage in the life cycle of a butterfly.
5. The only mammal that can fly.
6. These do not take care of their babies.
7. Baby cockroach that comes out of the egg.
8. The larva of a housefly.



F. When a baby bird hatches out of an egg, there is no yolk seen. Why?

Ans. A baby bird developing inside an egg feeds on yolk. Therefore, no yolk is seen when it hatches out of an egg.

G. Why does the larva of a butterfly feed a lot?

Ans. The larva of a butterfly feeds a lot because it grows rapidly and changes into a nonfeeding stage called pupa. In pupa stage, it does not eat anything and changes into an adult butterfly.

H. A tadpole has a tail and looks like a fish. Why?

Ans. A tadpole has a tail and looks like a fish because it lives in water.

I. Why does a fish lay thousands of eggs?

Ans. A fish lays thousands of eggs because bigger fishes and other animals eat up many eggs and young fishes. Only a few of them grow into adult fishes.

J. Why is the shell of a snake's egg thick and leathery?

Ans. A snake lays eggs on the ground. A thick and leathery shell saves the eggs from breaking when laid on the ground.

PERIODIC TEST 1

Time: 45 Minutes

Maximum Marks: 30

A. Fill in the blanks by choosing correct words from the box. (5)

iodine cones maggot chlorophyll huddle

1. Chlorophyll makes the leaves look green.
2. Starch gives blue-black colour with iodine solution.
3. Trees on hills bear cones instead of flowers.
4. Penguins huddle together to keep themselves warm.
5. The larva of a housefly is called maggot.

B. Write True or False against each statement. (5)

1. Mushrooms are non-green plants. True
2. Thorny bushes grow on hills. False
3. Tape grass does not have stomata on its leaves. True
4. Fishes have streamlined body shape. True
5. Reptiles lay eggs in water. False

C. Match the following. (5)

- | Column A | Column B |
|------------------|-------------------------|
| 1. Venus flytrap | (a) Thick skin |
| 2. Pine tree | (b) Blubber |
| 3. Camel | (c) Insectivorous plant |
| 4. Polar bear | (d) Larva of frog |
| 5. Tadpole | (e) Conifer |

D. Answer the following questions. (15)

1. What is photosynthesis? Name the raw materials used during photosynthesis.

Ans. Photosynthesis is a process by which green plants make their food in the presence of chlorophyll and sunlight by using carbon dioxide and water. Plants use carbon dioxide, water and sunlight during photosynthesis.

2. How are terrestrial plants different from aquatic plants?

Ans. Terrestrial plants are adapted to live on many types of terrestrial habitat. They have different shapes and sizes. Their roots, stem and leaves can store food and water where required.

Aquatic plants are adapted to live in water. Most aquatic plants are small, light and have waxy coating on their leaves. They have very few or no stomata.

3. List the adaptations found in a camel.

Ans. A camel has following adaptations to survive in desert:

- (a) It has padded feet to walk easily on hot and loose sand.

- (b) It has flaps on nostrils and long eyelashes for protection from sand.
- (c) It has thick skin to protect from heat of the sun and loss of water by evaporation.
- (d) It can store large amount of water.
- (e) It has fat stored in its hump which is converted into water when needed.

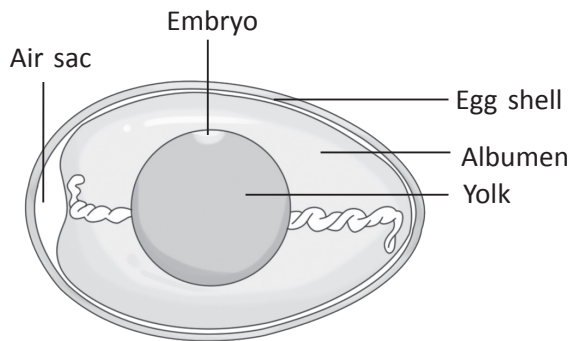
4. Describe the life cycle of a butterfly.

Ans. The life cycle of a butterfly has four stages – Egg, Larva, Pupa and Adult.

A butterfly lays eggs on the leaves of plants. An egg hatches into a larva called caterpillar. It feeds on leaves and covers itself in a cocoon. This stage is called pupa. Inside the cocoon, the caterpillar changes into an adult butterfly. The adult butterfly comes out by bursting of pupa.

5. Draw the structure of a bird's egg and label its parts.

Ans.



Structure of a bird's egg

The World of Microbes



ANSWERS

WARM UP

Mushrooms

CHECKPOINT

Give one word answer.

1. Instrument used to see microbes
2. The fungi used to make bread
3. Disease-causing microbes
4. Microbes that cause typhoid

Microscope
Yeast
Germs
Bacteria

CHECK YOUR STUDY

A. Fill in the blanks.

1. Viruses can reproduce only inside the body of a living organism.
2. Yeast is used to make bread.
3. Bacteria help us to make curd.
4. Harmful microbes are called germs.
5. Some mushrooms are edible.
6. Microbes grow faster in warm and damp places.

B. Tick (✓) the correct answers.

1. Which of these is not a viral disease?
(a) Cholera (b) Common cold
(c) Dengue (d) Polio
2. Malaria is caused by a
(a) Bacteria (b) Fungi
(c) Protozoa (d) Virus
3. Ringworm is caused by
(a) Protozoa (b) Bacteria
(c) Fungi (d) Virus

4. Which of these microbes help us make curd and cheese?

(a) Virus

(b) Fungi

(c) Bacteria

(d) Protozoa

C. Match the columns.

Column A

Column B

- | | | |
|-------------|---|------------------------|
| 1. Bacteria | — | (a) Many-celled fungus |
| 2. Yeast | — | (b) Chickenpox |
| 3. Mushroom | — | (c) Curd |
| 4. Virus | — | (d) Bread |

D. Answer these questions.

1. What are microbes? Name different types of microbes.

Ans. The tiny organisms that cannot be seen with the naked eye are called microbes. Different types of microbes are bacteria, viruses, protozoa and fungi.

2. What are the different shapes of bacteria?

Ans. Bacteria are round, rod-shaped, spiral and comma-shaped.

3. Name a (a) one-celled fungus, (b) many-celled fungus.

Ans. (a) Yeast (b) Mushroom

4. How are microbes useful to us? State three points.

Ans. (a) Some microbes help in making ice-cream, toothpaste, glue, etc.
(b) Some bacteria help in making curd and cheese from milk.
(c) Yeast is used in making bread.

5. Which microbe turns the milk into curd?

Ans. Bacteria turn the milk into curd.

6. How are microbes harmful to us?

Ans. Many microbes cause diseases and spoil our food.

7. How are viruses different from other microbes?

Ans. Viruses cannot reproduce outside a living cell while other microbes can.

8. What are the different ways in which germs can enter our body?

Ans. Germs can enter our body through cuts and wounds; air, water and food containing germs and bite of an infected animal.

9. How can we protect ourselves from microbes? State five points.

Ans. We can protect ourselves from microbes by
(a) eating fresh and clean food.
(b) drinking clean water.
(c) washing our hands before and after eating food.
(d) keeping our body and surroundings clean.
(e) taking proper vaccines for diseases.

E. Rohan did not wash hands before eating his lunch. Next day, he had a stomach upset. Why did this happen?

Ans. Rohan had a stomach upset because he had his lunch with dirty hands which were carrying germs. Germs entered his stomach with food and made him sick.

F. Renu ate Golgappas from a roadside vendor. After some time, she started vomiting. Why?

Ans. Most roadside vendors sell uncovered food which carries germs. This food may be staled also. Therefore, eating such food makes us sick.

Healthy Eating



ANSWERS

WARM UP

Yes, because it has many types of fresh fruits.

CHECKPOINT 1

Unscramble the letters to find the names of food items. Write them in the blank spaces provided. Also, write the name of the nutrient each food item is rich in.

- | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---------------|----------------------|-----------------|----------------|
| 1. | <table border="1"><tr><td>A</td><td>A</td><td>S</td><td>E</td><td>Y</td><td>N</td><td>B</td><td>O</td></tr></table> | A | A | S | E | Y | N | B | O | <u>SOYABEAN</u> | <u>Protein</u> |
| A | A | S | E | Y | N | B | O | | | | |
| 2. | <table border="1"><tr><td>T</td><td>T</td><td>O</td><td>A</td><td>O</td><td>P</td></tr></table> | T | T | O | A | O | P | <u>POTATO</u> | <u>Carbohydrates</u> | | |
| T | T | O | A | O | P | | | | | | |
| 3. | <table border="1"><tr><td>T</td><td>B</td><td>R</td><td>E</td><td>T</td><td>U</td></tr></table> | T | B | R | E | T | U | <u>BUTTER</u> | <u>Fat</u> | | |
| T | B | R | E | T | U | | | | | | |

CHECKPOINT 2

Fill in the blanks.

1. A balanced diet contains all the nutrients in right amounts.
2. Vegetarians should eat more pulses and beans.
3. Cooking makes the food soft and tasty.
4. Cakes and biscuits are made by baking.
5. Fresh milk is preserved by converting it into cheese or yogurt.

CHECK YOUR STUDY!

A. Write True or False.

- | | |
|---|--------------|
| 1. Rice and potatoes are rich in proteins. | <u>False</u> |
| 2. Roughage cannot be digested but it helps to keep digestive system healthy. | <u>True</u> |
| 3. We should eat lots of fats every day. | <u>False</u> |
| 4. Too much proteins in our diet make us obese. | <u>False</u> |
| 5. We should not wash fruits before eating them. | <u>False</u> |

B. Fill in the blanks.

1. Substances in food that keep us healthy are called nutrients.
2. Nutrients that give us energy are carbohydrates and fats.

3. A nutrient that helps in the repair of body cells is protein.
4. Vitamins and minerals protect our body from diseases.
5. Protecting food to be used later is called food preservation.

C. Tick (✓) the correct answers.

1. Carbohydrates are needed for

(a) growth	(b) energy <input checked="" type="checkbox"/>
(c) strong bones	(d) prevention of scurvy
2. Growing children need more of

(a) carbohydrates	(c) proteins <input checked="" type="checkbox"/>
(b) fats	(d) vitamins
3. Minerals like iron help in the

(a) formation of muscles	(b) formation of bones
(c) formation of blood <input checked="" type="checkbox"/>	(d) preservation of food
4. Vitamins are

(a) body-building nutrients	(b) energy-giving nutrients
(c) body-repairing nutrients	(d) protective nutrients <input checked="" type="checkbox"/>
5. Cooking makes the food

(a) soft	(b) tasty	(c) digestible	(d) all of these <input checked="" type="checkbox"/>
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D. Classify the given food items on the basis of the nutrients present in them.

Rice butter bread apple egg potato fish pulses
pear meat cheese sugar spinach brinjal tomato

Carbohydrates	Proteins	Fats	Vitamins and Minerals
Rice	Egg, Cheese	Butter	Apple
Bread	Fish		Pear
Potato	Pulses		Spinach
Sugar	Meat		Brinjal, Tomato

E. Answer these questions.

1. Why do we need food?

Ans. We need food to get energy, grow and repair damaged cells of the body and to keep our body fit, healthy and disease-free.

2. What is a balanced diet?

Ans. The diet that contains the right amount of all the nutrients is called a balanced diet.

3. Why do we need to drink water every day?

Ans. We need to drink water every day because it helps in the digestion of food, removal of waste from the body and keeps the skin healthy.

4. Why is fibre required in our diet? Give examples of foods that give us fibre.

Ans. Fibre in our diet keeps our digestive system healthy. Foods such as whole grains, spinach, lady's finger, cucumber, oats, etc. give us fibre.

5. Name any four methods of cooking food.

Ans. Boiling, frying, steaming and roasting are methods of cooking food.

6. Name the various methods of preserving food. Give one example of each.

Ans. Various methods of preserving food with examples are as follows:

(a) **Heating:** Milk is preserved by heating.

(b) **Salting:** Vegetables/fruits/meat/fish.

(c) **Pickling:** Raw mangoes/olives/green chillies.

(d) **Sweetening:** Fruits.

(e) **Drying:** Cereals/red chillies/fenugreek leaves/fish.

(f) **Freezing:** Cooked food/fruits/vegetables/fish/meat/eggs.

(g) **Canning:** Tomatoes/green peas/chillies/fruits.

(h) **Changing form:** Milk into cheese or yogurt.

7. Give the functions of the following nutrients:

(a) Carbohydrates

(b) Proteins

(c) Fats

(d) Vitamins

(e) Minerals

Ans. (a) Carbohydrates give us energy.

(b) Proteins help in the growth and repair of damaged cells of the body.

(c) Fats give us energy and warmth.

(d) Vitamins keep our body fit and disease-free.

(e) Minerals are required in the formation of blood, bones and teeth and in maintaining water balance of the body.

F. Rohan is a labourer and eats more food than Mr. Gupta who is a clerk. Why?

Ans. Rohan eats more food than Mr. Gupta because he does more physical work and hence, needs more energy.

G. Kavya's mother asks her to avoid eating samosas and pakodas. Why?

Ans. Samosas and pakodas contain mainly carbohydrates and fats. They do not provide proteins and vitamins and minerals to help grow and protect against diseases. Also, eating more of such food makes us obese.

H. Why do Dr. Rastogi advise his patients to eat a variety of foods?

Ans. Eating a variety of food provides us with all kinds of nutrients. It keeps our body fit and healthy.

I. Why should eat lemons and oranges regularly?

Ans. Lemons and oranges are rich sources of vitamin C. It protects us from many diseases.

J. Why should we take small portions of food in our plate?

Ans. We should take small portions of food in our plate to avoid the wastage of food.

Teeth and Digestion



ANSWERS

WARM UP

The teeth of a baby are shown in the picture.

CHECKPOINT 1

Complete the following table.

Name of teeth	Shape	Location	Number in each jaw	Total	Function
Incisors	<i>Chisel</i>	Front	4	8	<i>Cut and bite food</i>
Canines	Sharp and pointed	<i>On either side of incisors</i>	2	4	Tearing food
<i>Premolars</i>	Flat and broad	Next to canines	4	8	<i>Crushing and chewing food</i>
<i>Molars</i>	Broad	<i>Towards back of mouth</i>	6	12	<i>Chewing and grinding food</i>

CHECKPOINT 2

Tick (✓) the correct answers.

- Which of these teeth are used for cutting and biting?
(a) Incisors (b) Canines (c) Premolars (d) Molars
- Which of these is not a part of a tooth?
(a) Root (b) Shoot
(c) Crown (d) Neck
- Which of these is the hardest substance in our body?
(a) Dentine (b) Pulp
(c) Enamel (d) Crown

CHECKPOINT 3

Fill in the blanks.

1. Our body uses food when it is digested.
2. Saliva changes starch of food into sugar.
3. No digestion takes place in large intestine.
4. Small intestine is a coiled tube.

CHECK YOUR STUDY

A. Name the following.

- | | |
|---|-------------------|
| 1. The set of teeth in a 2-year old child | <u>Milk teeth</u> |
| 2. The part of a tooth that has nerves | <u>Pulp</u> |
| 3. Teeth used for tearing meat | <u>Canines</u> |
| 4. The hardest part of a tooth | <u>Enamel</u> |
| 5. The sac where food is digested | <u>Stomach</u> |

B. Match the following.

- | Column A | Column B |
|------------|--|
| 1. Enamel | (a) hold the teeth in place |
| 2. Dentine | (b) the outermost white layer of a tooth |
| 3. Pulp | (c) the layer below the enamel |
| 4. Gums | (d) make us feel the toothache |
| 5. Nerves | (e) the central part of a tooth |

C. Tick (✓) the correct answers.

1. The number of teeth in the mouth of a 30-year old man is
(a) 20 (b) 32 (c) 40 (d) 60
2. The number of incisors in each jaw is
(a) 2 (b) 3 (c) 4 (d) 5
3. Tooth decay leads to
(a) fever (b) bad breath
(c) headache (d) shivering
4. Saliva helps in the digestion of
(a) proteins (b) fats
(c) starch (d) cellulose
5. The food is completely digested in the
(a) mouth (b) stomach
(c) small intestine (d) food pipe
6. The water from the undigested food is absorbed by the
(a) mouth (b) stomach
(c) large intestine (d) small intestine

D. Write True or False.

1. Food gets completely digested in the stomach.
2. The visible part of a tooth is called crown.
3. There are total eight incisors in humans.
4. Liver and pancreas pour their juices in the stomach.
5. Premolars are located next to incisors.

False

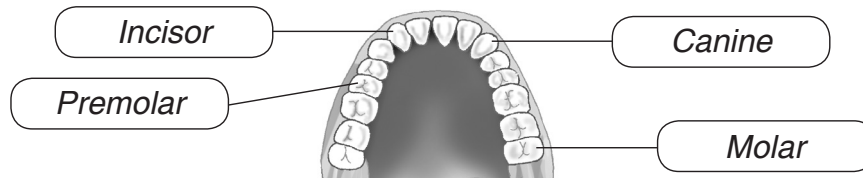
True

True

False

False

E. Label the different types of teeth in the following figure.



F. Answer these questions.

1. Name the different types of teeth and give their functions.

- Ans.** (a) Incisors – They are used to bite the food.
(b) Canines – They are used for tearing the food.
(c) Premolars – They are used for crushing the food.
(d) Molars – They are used for grinding the food.

2. Explain the structure of a tooth.

Ans. A tooth has three layers – enamel, dentine and pulp.

- Enamel is the white hard covering of the tooth. It protects the tooth from wear and tear during chewing.
- Dentine is a yellow, soft and bone-like layer of tooth. It is found below enamel and supports the enamel.
- Pulp is a soft and central part of a tooth. It contains blood vessels and nerves. It makes us feel toothache.

3. Write the ways to take care of teeth.

- Ans.** (a) Brushing teeth twice a day.
(b) Rinsing mouth after every meal.
(c) Avoiding too much of sweets and aerated drinks.
(d) Getting checked by dentist regularly.

4. What is tooth decay?

Ans. Tooth decay is the removal of enamel of a tooth by the action of acid released by bacteria growing on food bits stuck between the teeth.

5. How are milk teeth different from permanent teeth?

Ans. The teeth that erupt between the age of six and nine months and fall off between six and twelve years of age are called milk teeth. They are 20 in number. The new set of teeth that replaces the milk teeth is called permanent teeth. They are 32 in number.

6. Write the names of different parts of the digestive system.

Ans. Different parts of the digestive system are the mouth, food pipe, stomach, small intestine and large intestine. Apart these, liver and pancreas are digestive glands.

7. Write down the path food takes in the digestive system.

Ans. Mouth → Food pipe → Stomach → Small intestine → Large intestine → Anus

G. What would happen if there were no small intestine in our body?

Ans. If there were no small intestine in our body, food would not get completely digested and taken by blood. It would not reach to all parts of the body.

H. Rita never brushes her teeth before going to bed. What do you think will happen to her teeth?

Ans. Not brushing teeth before going to bed will lead to tooth decay.

I. Shreya's parents visit a dentist, at least once in six months. Why do they do so?

Ans. Visiting a dentist once in six months helps in keeping the teeth healthy. It helps in finding a disease developing in teeth or mouth at an earlier stage.

PERIODIC TEST 2

Time: 45 Minutes

Maximum Marks: 30

A. Fill in the blanks. (5)

1. In cacti, leaves get modified into spines.
2. Yeast is used to make bread.
3. Harmful microbes are called germs.
4. Butter makes the paper greasy.
5. Milk teeth are also called temporary teeth.

B. Write True or False. (5)

1. Fir trees grow on hills. True
2. Microbes are not found in our bodies. False
3. Roughage keeps our digestive system healthy. True
4. Crown is the visible part of a tooth. True
5. Pulp contains only blood vessels. False

C. Match the following. (6)

- | Column A | Column B |
|-------------|-----------------------------|
| 1. Duck | (a) One-celled fungi |
| 2. Protozoa | (b) Chisel-shaped teeth |
| 3. Yeast | (c) Single-celled organisms |
| 4. Pulses | (d) Long and pointed teeth |
| 5. Incisors | (e) Webbed feet |
| 6. Canines | (f) Protein-rich food |

D. Answer these questions. (10)

1. Why do animals reproduce?

Ans. Animals reproduce to continue of their own kind on the Earth.

2. What are different shapes of bacteria?

Ans. Bacteria are round, rod-shaped, spiral and comma-shaped.

3. What is a balanced diet?

Ans. The diet that contains the right amount of all the nutrients is called a balanced diet.

4. Write the ways to take care of teeth.

Ans. (a) Brushing teeth twice a day.
(b) Rinsing mouth after every meal.
(c) Avoiding too much of sweets and aerated drinks.
(d) Getting checked by dentist regularly.

5. Write down the functions of fats and proteins in our body.

Ans. (a) Fats give us energy and warmth.

(b) Proteins help in the growth and repair of damaged cells of the body.

E. Identify the system given below and label its different parts.

(4)

