

Explorer

Grade 3 | Term 1

Revised



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Introduction

Explorer is an integrated term course for primary (1 to 5) levels. The revised edition comprises three books: Term 1, Term 2 and Term 3. Each book covers the curriculum of all the core subjects taught in these classes – English, Mathematics, Environmental Studies, Science, Social Studies and General Knowledge, integrated together for an all-in-one approach.

This series is designed to help facilitate ‘learning without burden’, as it eliminates the need for separate text books to be carried by young students every day.

The content is well-graded, beautifully illustrated and visually engaging. In addition to the hands-on activities, there are many value-based tips and suggestions for inculcation of moral and ethical values.

The books in the series are structured in the following way:

English

The English section is a comprehensive course aimed at developing an understanding and appreciation for prose and poetry. The course aims to develop communication skills in students by integrating the concepts with essential language skills of listening, speaking, reading and writing. It has well-graded grammar and vocabulary sections to help students grasp the core language structures and enrich their creative expression.

Mathematics

The Mathematics section consists of carefully-graded and activity-based mathematical concepts. It links mathematics to the everyday life of the students and makes it enjoyable.

Environmental Studies

The Environmental Studies section, for grades 1 and 2, helps learners understand the environment around them in totality and develops sensitivity towards environmental issues that we are faced with.

Science

The Science section, for grades 3, 4 and 5, involves students as participants in the journey towards scientific exploration. The subject gives students an opportunity to construct their own knowledge through activities and projects, enabling them to connect their learning to the real world.

Social Studies

The Social Studies section, for grades 3, 4 and 5, introduces the young learners to the basic concepts of history, geography and civics. The series attempts to make learners understand the evolution of human society and its fast-changing paradigms.

General Knowledge

The General Knowledge section includes an assortment of topics dealing with general awareness and life skills.

We hope the learners and teachers find the course apt for their learning-teaching needs.

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English

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1

On the Pasture

Johanna Spyri



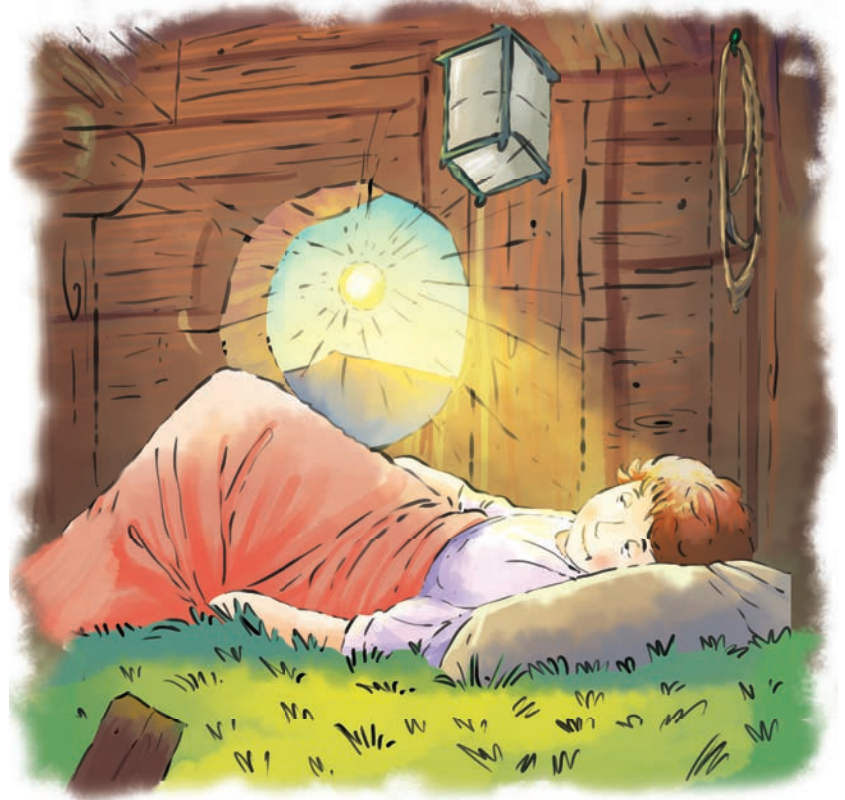
Warm-up

Have you ever been to the hills? What does it feel like?

Those of you who have been there, share your thoughts and experiences with others. Discuss in groups.



Heidi was awakened early next morning by a loud whistle. Opening her eyes, she saw her little bed and the hay beside her bathed in golden sunlight. For a short while she did not know where she was, but when she heard her grandfather's deep voice outside, she recollected everything. She remembered how she had come up the mountain the day before and left old Ursula, who was always shivering with cold and sat near the stove all day. While Heidi lived with Ursula, she had always been **obliged** to keep in the house, where the old woman could see her. Being deaf, Ursula was afraid to let Heidi go outdoors, and the child had often



obliged: forced

Wild goats live in rough mountain areas. Climbing around on rocks is no problem for a wild goat.

fretted in the narrow room and had longed to run outside. She was therefore delighted to find herself in her new home and hardly could wait to see the goats again. Jumping out of bed, she put on her few things and in a short time went down the ladder and ran outside. Peter was already there with his flock, waiting for Schwanli and Barli, whom the grandfather was just bringing to join the other goats.

“Do you want to go with him to the **pasture**?” asked the grandfather.

“Yes,” cried Heidi, clapping her hands.

“Go now, and wash yourself first, for the sun will laugh at you if he sees how dirty you are. Everything is ready there for you,” he added, pointing to a large tub of water that stood in the sun. Heidi did as she was told, and washed and rubbed herself till her cheeks were **glowing**. In the meanwhile, the grandfather called to Peter to come into the hut and bring his bag along. The boy followed the old man, who **commanded** him to open the bag in which he carried his **scanty** dinner. The grandfather put into the bag a piece of bread and a slice of cheese that were easily twice as large as those the boy had in the bag himself.

“The little bowl goes in, too,” said the Uncle, “for the child does not know how to drink straight from the goat, the way you do. She is going to stay with you all day, therefore milk two bowls full for her dinner. Look out that she does not fall over the rocks! Do you hear?”

Just then Heidi came running in. “Grandfather, can the sun still laugh at me?” she asked. The child had rubbed herself so violently with the **coarse**



fretted: was anxious and unhappy
pasture: an area of land with grass where animals can feed
glowing: looking warm and healthy

commanded: ordered
scanty: very small in size or in quantity
coarse: rough

towel which the grandfather had put beside the tub that her face, neck and arms were as red as a lobster. With a smile the grandfather said: “No, he can’t laugh any more now; but when you come home tonight you must go into the tub like a fish. When one goes about like the goats, one gets dirty feet. Be off!”

They started merrily up the Alps. A cloudless, deep-blue sky looked down on them, for the wind had driven away every little cloud in the night. The fresh green mountainside was **bathed in brilliant sunlight**, and many blue and yellow flowers had opened. Heidi was wild with joy and ran from side to side. In one place she saw big patches of fine red primroses, on another spot blue gentians sparkled in the grass, and everywhere the golden rock-roses were nodding to her. In her **transport** at such treasures, Heidi even forgot Peter and his goats. She ran far ahead of him and then **strayed** away off to one side, for the **sparkling** flowers **tempted** her here and there. Picking whole bunches of them to take home with her, she put them all into her little apron. Peter, whose round eyes could only move about slowly, had a hard time looking out for her. The goats were even worse, and only by shouting and whistling, especially by swinging his rod, could he drive them together.

“Heidi, where are you now?” he called quite angrily.



bathed in brilliant sunlight: looked attractive in a beautiful light
transport: joy
strayed: moved away

sparkling: brightly shining
tempted: made someone want to have or do something



About the Author

Johanna Spyri (1827 – 1901) was a Swiss novelist whose popular work is Heidi. Her other works include Veronica and Other Friends, The Story of Rico, Moni the Goat-Boy and Erick and Sally. Her works were originally in German and later translated into English. The landscape of Switzerland is very vividly represented in her works.

Can you find the author's picture?
Paste it here.



Comprehension

A. Say true or false.

1. When Heidi awoke and opened her eyes she heard a loud whistle.
2. When Heidi lived with Ursula she could go wherever she liked.
3. Grandpa wanted Heidi to wash herself.
4. Heidi forgot Peter and his goats.

B. Answer the questions.

1. Why couldn't Heidi remember where she was when she woke up?
2. Who were Schwanli and Barli?
3. What did the mountainside look like?
4. How could Peter manage to drive the goats together?

C. Read the lines and answer the questions.

1. "Go now, and wash yourself first, for the sun will laugh at you..."
 - a. Who said this and to whom?
 - b. Why did he ask the person to wash herself?
 - c. What did he mean by the sun will laugh at you?
2. "She is going to stay with you all day, therefore milk two bowls full for her dinner..."
 - a. Who said this and to whom?
 - b. Who was going to stay and with whom?
 - c. Why should he milk two bowls full for her?

D. Think and answer.

1. Why was Heidi happy to find herself in her new home?
2. What did Peter do for a living?

3. Why did the grandfather ask Heidi to go into the tub like a fish when she got back?



Language in Use

Material Nouns

What are the following things made of?



Material nouns are names of substances or material from which things are made.

For example, modelling clay and wood. You can make toys and dolls with clay. You can make chairs, tables and cots with wood.

Look at this aeroplane made of plastic. My sister made it.

A. Match the material nouns with things made from them.

Material naming words	Things made from them
1. brick	a. eraser
2. sand	b. ring
3. rubber	c. ruler
4. gold	d. castle
5. paper	e. candle
6. iron	f. house
7. wax	g. boat
8. glass	h. nail

B. Fill in the blanks with material nouns from the box.

wood cotton iron rubber bamboo

1. He is sitting on a chair made of

2. Rishav is climbing a ladder made of
3. These shoes made of are good for walking in the rain.
4. We should wear clothes woven from in summer.
5. The head of the hammer is made of

Apostrophe

Read these sentences.

- Ravi's house is white.
 - This is my brother's tiffin box.
 - The girls' hostel is next to the school playground.
1. Can you say whose house is white?
 2. Can you say who owns the tiffin box?
 3. Whose hostel are we talking of?

The nouns with 's in the sentences given above show who the mentioned things belong to.

Nouns can show who or what has something by adding an **apostrophe (')**.

Remember the following rules.

- When there is only one person or thing (singular), we add an apostrophe (')s to the noun to show possession.

Examples:

Mr Sharma's mobile, my brother's tiffin box, Ruchika's bike

- When there is more than one person or thing (plural), the apostrophe (') is added after s.

We don't use 's when talking about parts of inanimate objects.

So, use **wheels of the bus**, not **bus' wheels**, and **legs of the table** not **table's legs**.

Examples:

the girls' hostel, the birds' songs

- If the plural noun does not end with s', we add an apostrophe and s. For plural nouns that do not follow the rules, we just add an 's after the word.

Example:

the children's tiffin boxes

C. Look at the illustrations and fill in the blanks.



1. The books got wet in the rain.
2. The owner feeds it fish every day.
3. The leg was hurt.
4. The song is pleasing.
5. The wings were dark red.

D. Add an apostrophe (') or 's to the underlined words.

1. Parveen favourite game is basketball.
2. I gave the kids old toys to an orphanage.
3. The woman baby is crawling backwards.
4. My neighbour car won't start.
5. My uncle camera is a new digital camera.



Word Power

In the story, *On the Pasture*, the grandfather cared for Heidi, his granddaughter. The words **grandfather** and **granddaughter** are relationship word pairs.

A. Complete the following relationship word pairs by choosing the correct answer from the box.

student seller player patient follower

1. coach and
2. leader and
3. teacher and
4. doctor and
5. buyer and

Read the following words. Do they mean the same or different?

big large huge

They mean the same.

Words which mean the same are called **synonyms**.

B. Circle the odd one out.

1.	delighted	excited	sad	overjoyed
2.	dirty	clean	filthy	untidy
3.	glowing	sparkling	dull	shining
4.	treasures	valuables	riches	trash
5.	shout	scream	smile	cry



Dictionary Work

A. Arrange the following names in alphabetical order.

Heidi, Ursula, Peter, (write your name), Johanna.

It is easy to arrange words in alphabetical order when the first letter of each word is different. When first letters of the words are the same, we consider the second letter to arrange them alphabetically.

Peach, plum, papaya, pineapple, pomegranate can be arranged as—
papaya, peach, pineapple, plum, pomegranate.

B. Arrange the following sets of words in alphabetical order.

1. rose, lily, jasmine, sunflower, dahlia
2. mango, orange, banana, watermelon, dates
3. monkey, marigold, muskmelon, milk, metre
4. carrot, cream, clean, coin, cup
5. tree, tall, tube, top, tip



If the first two letters are the same, we look at the third letter to arrange them alphabetically.

C. Arrange the following sets of words in alphabetical order.

1. cricket, crowd, crayon, crunchy, cream

2. slow, slip, slurp, slate, sleep
3. cat, camel, coyote, crocodile, crow
4. rain, rat, ran, race, rail
5. drop, dry, draw, drive, drum



Listening and Speaking

A. Listen and repeat the oi sound.

join spoil oil toy coin point

B. Work in pairs. Listen to the words. Tick (✓) if you hear the oi sound or cross (X) if you don't hear the sound. Then ask your partner to do the same.


☐ ☐

☐ ☐

☐ ☐

☐ ☐

☐ ☐

C. Listen to the story. Then answer these questions.

1. Write true or false.

- a. Anansi loved green leafy vegetables.
- b. The monkey asked Anansi to eat the beans with them.
- c. Anansi finally got some food to eat.

2. Complete the sentences.

- a. Anansi didn't wait at Rabbit's house till the greens were done because
- b. Anansi wanted to tie one end of the web to his leg and the other to the pot so that once the greens were done
- c. The hog wanted to share with Anansi.
- d. Anansi's legs became thinner and thinner because
- e. Anansi realised that tying his legs to the cooking pots was not a

D. Work in pairs. Tell the story of Anansi to your partner.



Writing

- A. Look at the picture. Where do you think the children are? What are they doing? Imagine yourself being in such a place. Write about the things you would do if you were there with your family/friends.



- B. Now imagine you were Heidi living in a small room with Ursula. You are not allowed to go outside. Write a paragraph in 100 words about how you would feel and what you would do to pass the time.



Activity

Let us tempt Heidi a bit more to collect all types of colourful flowers. Form groups, draw and colour your favourite flowers on a chart paper and display them on the bulletin board. You may give it a title, 'Come Heidi! Take Your Pick'.

2

Boats Sail on the Rivers

Christina Rossetti



Warm-up

Do the clouds floating in the sky make you think of boats and ships sailing in the sky? Why so? Imagine what it would be like to take a ride on a boat of clouds? What would you see and feel? Join in a group and share your thoughts.



The poet praises the beauty of the sky on a clear day.

Boats sail on the rivers,
And ships sail on the seas;
But the clouds that **sail** across the sky
Are prettier far than these.

There are bridges on the rivers
As pretty as you please;
But the **bow** that **bridges** heaven,
And **overtops** the trees,
And builds a road from earth to sky,
Is prettier far than these.

sail: travel in a boat or ship which has a sail
bow: rainbow—a half circle with seven colours which sometimes appears in the sky when the sun shines after the rain

bridges: structures that are built over rivers, roads, etc. so that people or cars could go across them
overtops: stretches above the height of something else



About the Poet

Christina Rossetti (1830 – 1894) wrote her first poem when she was 11 years old. When she was a child, she spent a lot of time observing nature. Rossetti has written many poems for children as well as for adults.

Can you find the poet's picture?
Paste it here.



Comprehension

A. Write true or false.

1. Fish sail on the rivers.
2. Clouds are prettier than bridges.
3. There is a bow on the tree top.

B. Answer the questions.

1. What is special about the bridges on the rivers?
2. What do the clouds do?
3. What is it that bridges heaven?
4. Which two places does the road connect?

C. Think and answer.

1. Do clouds actually **sail** across the sky?
2. What is the bow that connects heaven? Why is it called a **bow** here?
3. What does **heaven** mean here? Why does the poet say that the bow bridges heaven?



Appreciation

When the poet says **the clouds that sail across the sky...**, she compares two different things: boats/ships and clouds.

The clouds do not actually sail across the sky. They look as if they do.

A. *The bow that bridges heaven and overtops the tree is another comparison.*

Can you tell what is compared with what here?

B. Can you find any other example of comparison in the poem?



Writing

- A. Write a letter to your little brother or sister about the things you like around you. You could talk about trees, flowers, clouds, stars, etc.



- B. Look at the picture. Describe what you see.



Activity

A rainbow has seven colours. They are known as VIBGYOR. In VIBGYOR, each letter stands for a colour. Fill in the missing letters to find out the colours VIBGYOR represents. Give an example of each colour. You could write the name of an animal, bird, flower, fruit, vegetable or a thing.

No.	Colours	Examples
1.	v.....o l.....t	
2.	i.....d.....g o	
3.	b..... ..e	
4.	g..... ..e n	
5.	y.....l.....o w	
6.	o r.....n.....e	
7.	r.....d	



3

Alice's Adventures in Wonderland

Lewis Carroll



Warm-up

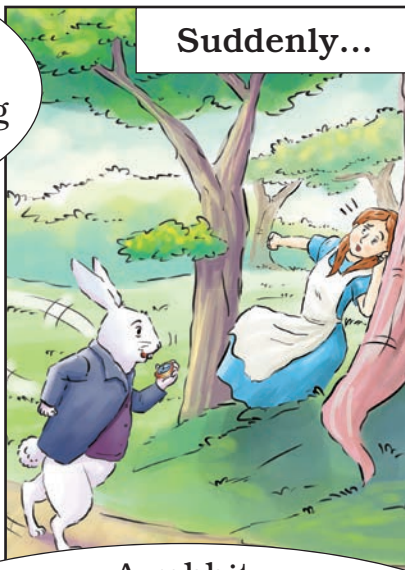
Divide the class into two groups: The Bugs and The Bigs. The Bugs team will mention tiny insects, worms or things. The Bigs team will list big or giant creatures, objects and so on. After that the lists will be read out. Now, imagine all the giants as miniatures and the tiny bugs as the giants. How does it feel? Does it feel funny or scary?



The hot day made me feel so sleepy and stupid. I wonder whether getting up and making a **daisy-chain** is worth it.



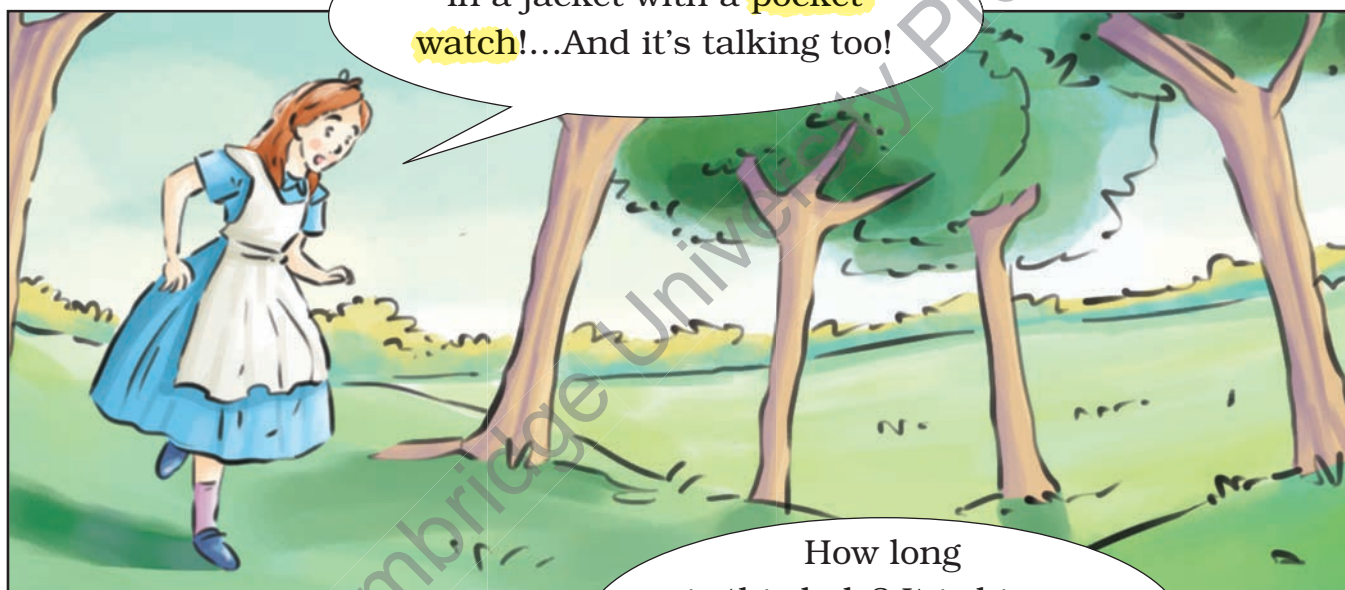
Suddenly...



Oh dear!
Oh dear! I shall be too late!



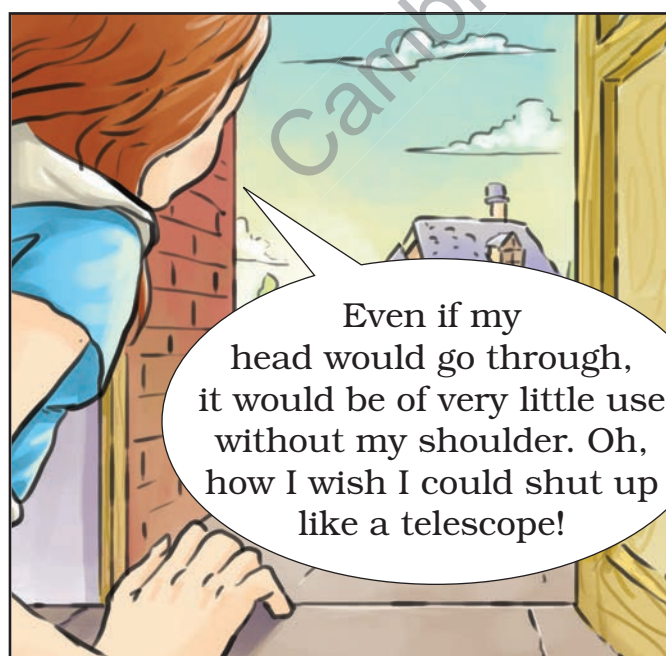
A rabbit in a jacket with a **pocket watch**!...And it's talking too!



How long is this hole? It is bigger than what it looked like from the outside.







Hmm...

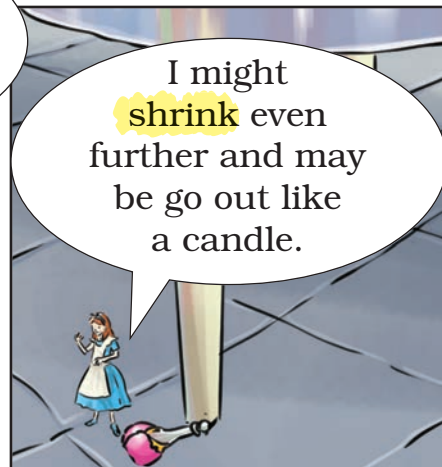
The taste is a sort of mixed flavour of cherry-tart, custard, pineapple, roast turkey, toffee and hot buttered toast.



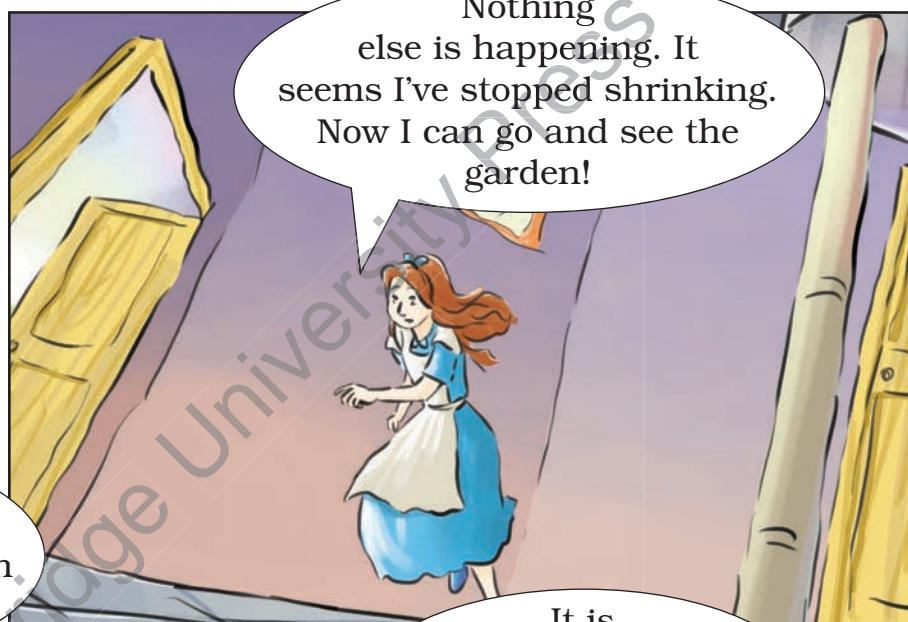
What a curious feeling? I must be shutting up like a telescope.



I might **shrink** even further and may be go out like a candle.



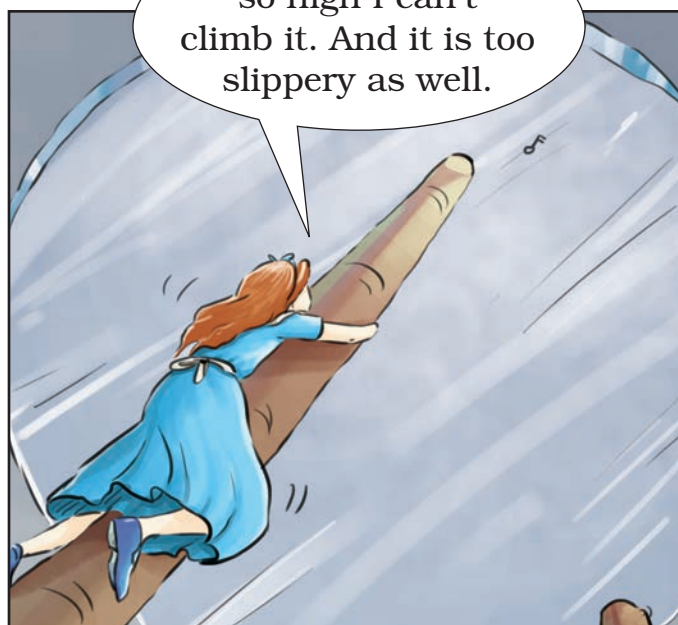
Nothing else is happening. It seems I've stopped shrinking. Now I can go and see the garden!

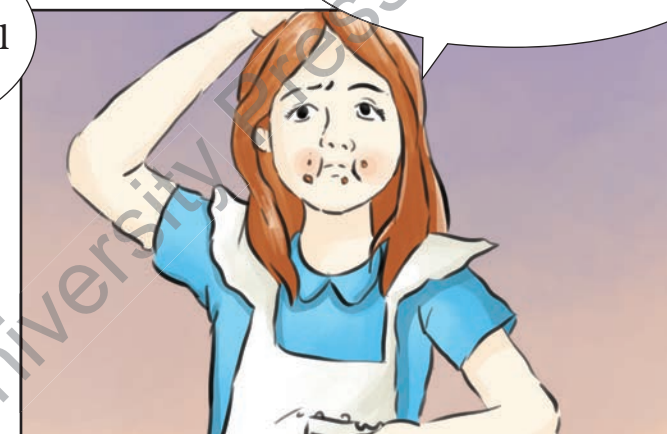
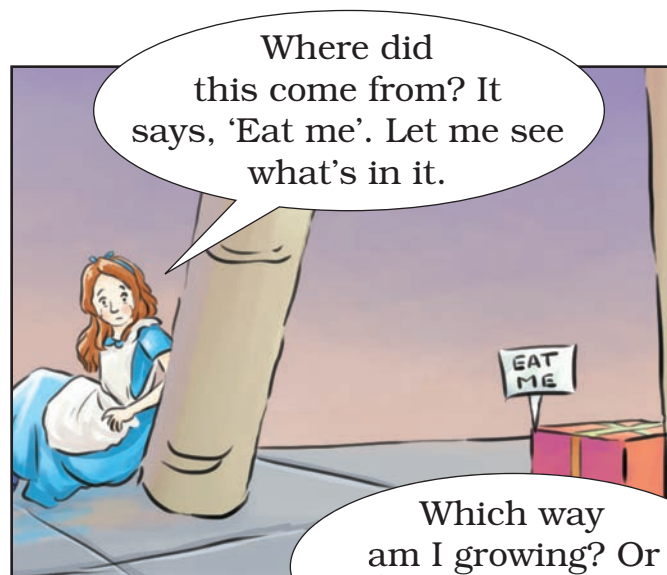


Oh, dear!
I've forgotten about the little key. It is still on the top of the table.



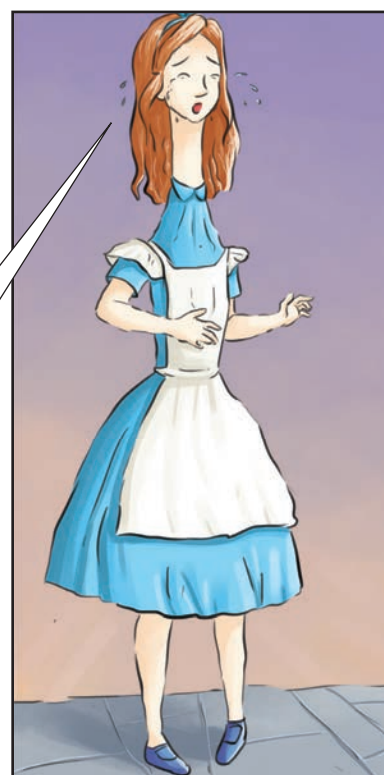
It is so high I can't climb it. And it is too slippery as well.

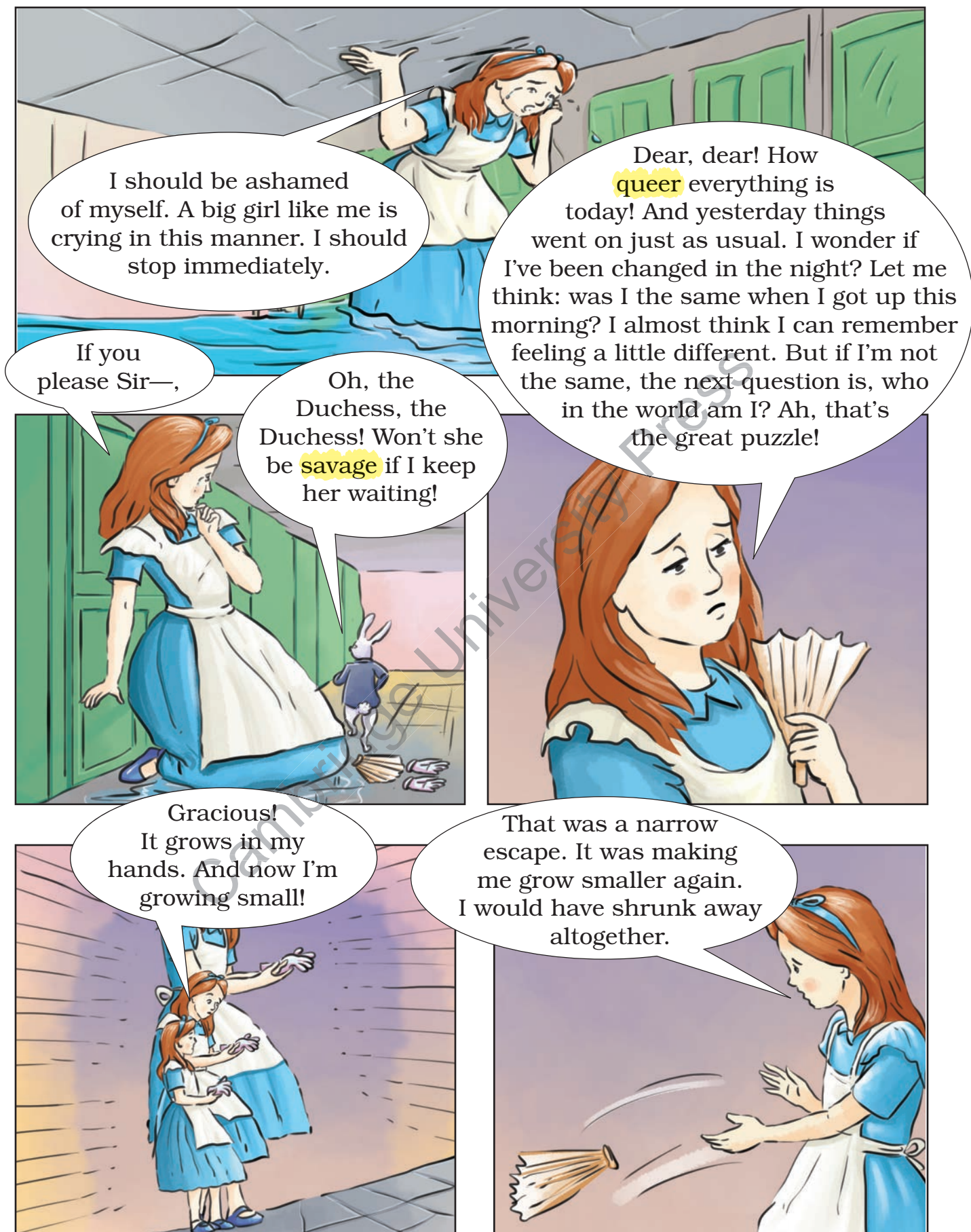




Now, I'm opening out like the largest telescope that ever was! I can't even see my feet. I wonder who will put on the shoes and stockings on my feet now?

I am nine feet tall. My head won't go through the small door. All I can do is peep into the garden.





I should be ashamed of myself. A big girl like me is crying in this manner. I should stop immediately.

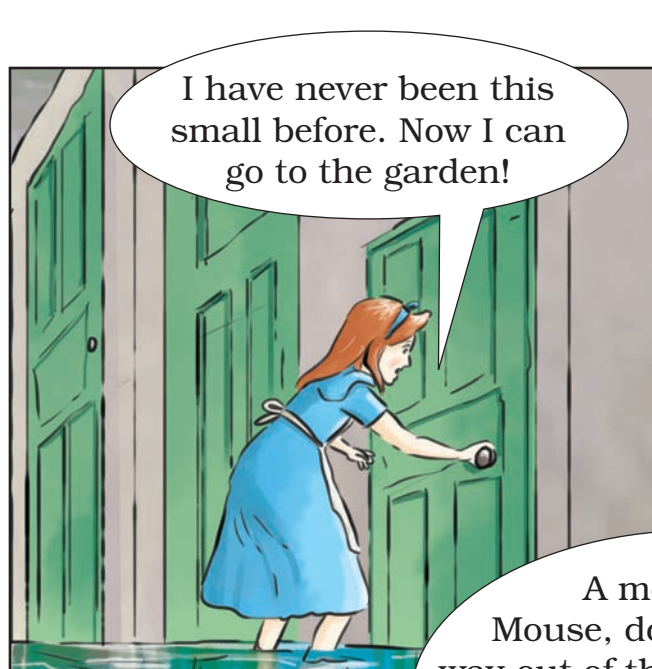
If you please Sir—,

Oh, the Duchess, the Duchess! Won't she be **savage** if I keep her waiting!

Dear, dear! How **queer** everything is today! And yesterday things went on just as usual. I wonder if I've been changed in the night? Let me think: was I the same when I got up this morning? I almost think I can remember feeling a little different. But if I'm not the same, the next question is, who in the world am I? Ah, that's the great puzzle!

Gracious! It grows in my hands. And now I'm growing small!

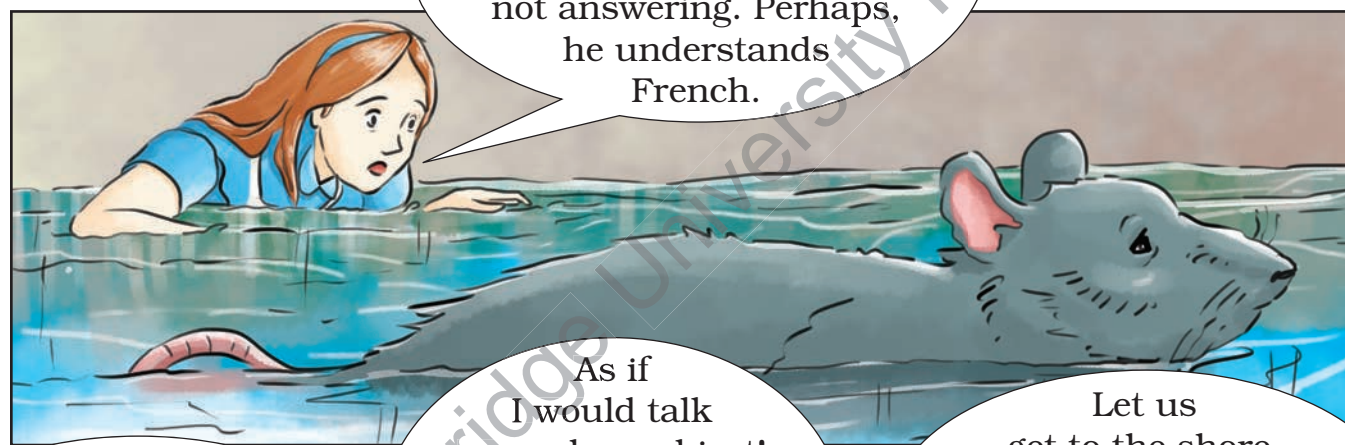
That was a narrow escape. It was making me grow smaller again. I would have shrunk away altogether.



I have never been this small before. Now I can go to the garden!



Oops! This is my punishment for crying so much. Now I'll be drowned in my own pool of tears.

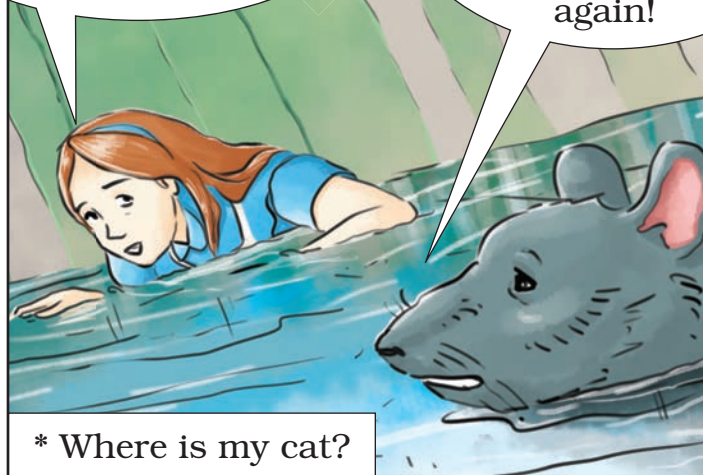


A mouse! Oh, Mouse, do you know the way out of this pool? I am very tired of swimming... He is not answering. Perhaps, he understands French.

Ou'est ma chatte?* Oh, I am sorry! I forgot that you are afraid of cats!

As if I would talk on such a subject! Our family always hated cats: nasty, low, vulgar things! Don't let me hear the name again!

Let us get to the shore, and then I'll tell you my history, and you'll understand why it is I hate cats.



* Where is my cat?





About the Author

Charles Lutwidge Dodgson (1832 – 1898) was better known by his pen name, Lewis Carroll. He was an English writer, mathematician and logician. His most famous writings are *Alice's Adventures in Wonderland*, its sequel, *Through the Looking-Glass*, which includes the poem *Jabberwocky*, and the poem *The Hunting of the Snark*.

Can you find the author's picture? Paste it here.



Comprehension

A. Choose the correct answer.

- The two girls were sitting under
 - a tree in a park
 - a tree near a river
 - a tree beside a hut
- The rabbit was wearing a jacket and looking at
 - an alarm clock
 - a wrist watch
 - a pocket watch

bizarre: unusual; strange; weird

3. Alice was not hurt because she fell on some dry
 a. leaves b. sheets c. mattresses
4. Alice found a tiny lying on the glass table.
 a. jar b. box c. key
5. Alice was swimming in the pool of
 a. hot water b. cold water c. tears

B. Answer the questions.

1. What made Alice feel sleepy and stupid?
2. What was surprising about the rabbit?
3. Where did the rabbit enter?
4. How small did she become when she drank the content from the small bottle?
5. What did she find inside the box that read **Eat me**?

C. Read the lines and answer the questions.

1. *It's so high I can't climb it! And it is too slippery as well.*
 a. What is **so high**?
 b. Why couldn't the speaker **climb** it?
 c. What made it slippery?
2. *As if I would talk on such a subject!*
 a. Who said this?
 b. What is the subject?
 c. Why would the speaker not talk about the subject?

D. Think and answer.

1. Why did Alice follow the rabbit? Who do you think kept the bottle and the box that read **Drink me** and **Eat me**?
2. Would you want to have an experience like this? Would you be scared or thrilled?



Language in Use

Singular and Plural Nouns

Read these sentences.

- Two **girls** were sitting under a tree.

- People used pocket **watches** in olden **days**.

The highlighted words tell us about the number of people, animals, things or places.

Examples:

girl + **-s** = girls

watch + **-es** = watches

For most nouns in the English language, we add an **-s** at the end of a word to make it plural.

For nouns that end with an **-s**, **-ch**, **-sh** or **-x**, we add an **-es** to the end of a word to make it plural.

A. Search and write at least five words from the story that are made into a plural by adding an -s or an -es.

There are nouns that become plural by changing their spelling in other ways.

For words that end in **-f**, we first change the **-f** to a **-v** and then add **-es**.

Examples:

• loaf → loa- + -v- + -es

• half → hal- + -v- + -es

For words that end in **-fe**, we first change the **-fe** to **-v** and then add an **-es**.

Example:

• knife → kni- + -v + -es

Some nouns change the vowel or vowels in a word to make the noun plural.

Examples:

• man – men

• woman – women

• foot – feet

• tooth – teeth

• goose – geese

Some words have the same form for both singular as well as plural words.

Examples:

deer, sheep, fish, bison

B. Fill in the blanks with the correct plural form of the given nouns.

1. The cook bought his (knife) from a special shop.
2. His (tooth) have turned yellow from drinking tea.
3. All the (person) on the road were stuck in traffic.

4. Many trees in India shed their (leaf) before spring.
5. These shoes are too big for my (foot).
6. The gang of (thief) had stolen a lot of money.
7. I saw the (child) climbing a tree.
8. In winter, (goose) fly over mountains to reach India.

Collective Nouns

Read these sentences.

- A **herd of goats** was happily grazing in the field.
- I gave my mother a **bouquet of flowers** on her birthday.



The groups of words in bold are known as collective nouns.

A **collective noun** is a noun that refers to a group of people or things as one unit.

Examples:

- | | |
|-----------------------|-----------------------------------|
| • an army of soldiers | • a crowd of people or spectators |
| • a choir of singers | • a litter of cubs |
| • a band of musicians | • a pride of lions |
| • a gang of thieves | • a flock of birds |



C. Fill in the blanks with the suitable words from the box.

litter gang herd band bunch crowd

1. The police arrested a of thieves.
2. The farmer takes very good care of his of cattle.
3. A lioness takes care of her of cubs.
4. A of musicians performed live in a concert.
5. A of spectators listened to their favourite band.
6. We bought a fresh of bananas.



Word Power

Read these words.

in- + complete = incomplete

im- + possible = impossible

un- + happy = unhappy

dis- + agree = disagree

The letters **in-**, **im-**, **un-** and **dis-** are called **prefixes**.

A **prefix** is a letter or group of letters added at the beginning of a word. New words form when we add a prefix to a word.

A. Use the prefixes in-, im-, un- and dis- to form new words. You may use a prefix more than once.

1.appear

2.known

3.satisfied

4.equal

5.patient

6.visible

7.polite

8.convenient

B. Match words in column A with their meanings in column B.

A

B

pasture

be grateful or forced to do something

obliged

rough or harsh

coarse

become smaller in size

shrink

unusual, strange, weird

bizarre

an area of land with grass where animals can feed



Spelling

Use -ir- or -ur- to spell each word correctly.

1. c.....l 2. b.....d 3. h.....t 4. g.....l 5. t.....f



Listening and Speaking

A. Listen to these words and repeat them.

say sad sit miss zip zoo was hers

B. Listen to the words and fill in the blanks. Say the words aloud.

- | | | |
|-------------|---------------|-------------|
| 1.ound | 4. hi..... | 7. cat..... |
| 2. thi..... | 5. si.....ter | 8. bu..... |
| 3. qui..... | 6. no.....e | |

Whenever we want to make a request or ask for permission, we use special words. When we request someone to do something, we use **could you** and **would you**.

Examples:

- **Could/Would you** lend me your notebook, please?

Can you and **will you** are less polite.

- **Can you/Will you** carry my bag for me, please?

May is an even more formal and polite way of asking for permission.

- **May I** borrow a pencil, please?

C. Match the following groups of words to make meaningful sentences. One has been done for you.

	borrow	the television?
May I	turn down	some water?
Can I	give me	your phone?
Can you	leave	the window?
Could you	ask you	a question?
	open	early?

May I/Can I leave early?

D. Work in pairs. Role play the situations to express requests.

1. You want to seek permission from your class teacher to go home early from school.
2. You want to go to your friend's house to play and need to ask your parents for permission.



Writing

- A. Imagine you are the rabbit who can talk. Complete the dialogue by responding to Alice's questions.

Rabbit: Oh dear! Oh dear! I shall be too late!

Alice: (*Surprised*) Wow! Here's a rabbit that can talk! Hello Mr Rabbit!
Where do you live?

Rabbit: Hello, Ms Alice!

Alice: (*Surprised*) In a tiny hole in the ground!

Rabbit: Yes. Would you

Alice: (*Surprised*) Visit you, indeed? How will I enter the hole? It is so small.

Rabbit: (*Smilingly*) Oh! Don't worry about that.

Alice: (*Surprised*) Drink the magic drink! How's it going to help me?

Rabbit:

Alice: (*Scared*) Shrink my size! No, no! I don't wish to shrink. I'm fine as I am. Thank you, Mr Rabbit!

- B. Write eight to ten sentences to describe the things Alice saw as she followed the rabbit into the hole.



Activity

First, look up the dictionary to know the meaning of the word, **miniature**. Next, divide the class into two teams A and B. Make as many four or more than four letter words as you can from the word **miniature** in ten minutes. List them in your notebook. Finally, after ten minutes, read out the words from your respective lists. The team that makes more words wins the round!



4

Saved by a Dolphin

James Baldwin



Warm-up

Can you say what is common to these pictures?



In the city of Corinth (*ko-rinth*) there lived a wonderful musician whose name was Arion (*eh-ri-on*). He played the lyre so beautifully and sang so sweetly that people were never tired of praising his music. His fame spread far and wide.

In those days, a musical competition was held at Sicily. Arion travelled to the island to take part in the contest. His music won him the first prize in the competition. Many people requested him to come to their cities and perform for them. Arion visited several cities, and in each place he was well paid for his music.

He became very rich. After some time, he decided to go home.



A ship was ready to sail for Corinth and the captain agreed to take him as a passenger. Unknown to Arion, it was a pirate ship. The captain and the sailors planned to kill Arion and keep his money and belongings.

Arion overheard them **plotting**. “You may take everything that I have,” he told them, “if you spare my life.”

The king of Corinth was Arion’s friend. The sailors feared that if they let Arion live, he would report the matter to the king.

“We will not **spare** your life,” they said, “but you have a choice. We will either throw you **overboard** or we will kill you and bury you. Which shall it be?”

“I would rather jump overboard myself,” said Arion. “But I request you to grant me a wish.”

“What is it?” asked the captain.

“Allow me to sing my favourite song. I promise that as soon as it is over, I will jump into the sea.”

Arion stood near the railing of the ship, and the sailors gathered in a semicircle around him.

Do you think the sailors granted Arion’s wish?

He played his **lyre** and sang a song so sweet that many of the sailors were moved to tears. As soon as the song was over, Arion threw himself into the sea. The sailors divided his money among themselves, and the ship sailed on.

In a few days, they reached the port of Corinth. An officer was waiting for them and took them to the king.

“Have you come from Italy?” asked the king.

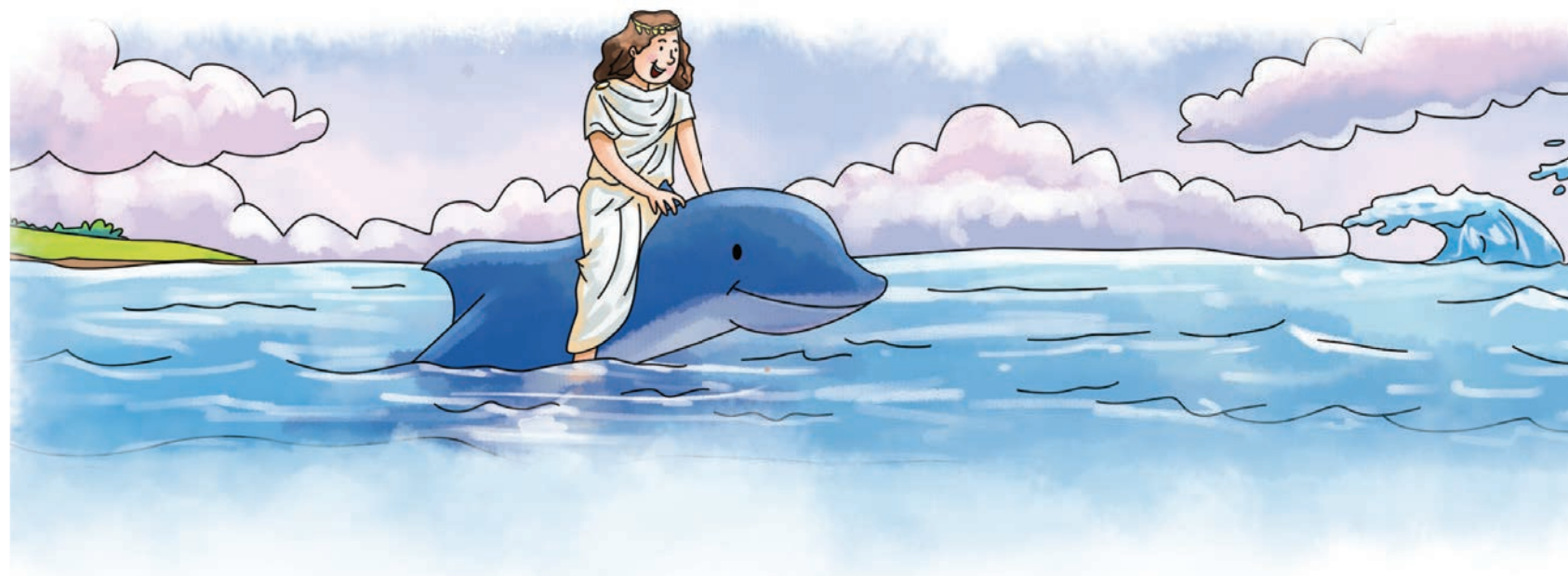
“We have,” said the captain.

“Where is Arion, the famous musician and my dear friend? I know he was a passenger on your ship.”

“You mean the musical fellow!” said the captain, trying to look sad. “He fell overboard and drowned in the sea. We could not save him.”

plotting: making secret (usually harmful) plans
spare (one’s) life: allow (someone) to live
overboard: from the side of a ship and into the sea

lyre: a U-shaped musical instrument, played by plucking strings



Hardly had he spoken when Arion walked into the room, dressed in the same clothes he was wearing on the ship. The captain and sailors were so frightened; they fell upon their knees and **confessed** their crime.

They wondered how Arion was saved from drowning.

When Arion had sung his beautiful song, **charmed** by his music, dolphins had gathered around the ship. When he had jumped into the sea, one of the dolphins had carried him on its back to the nearest shore. Arion had then travelled to Corinth, not stopping even to change his clothes.

He had told the king about the adventures he had **undergone**, but the king would not believe him.

“Wait till the ship arrives,” Arion had said, “and you will know the truth.”

A few hours later, the ship came into port and you know what happened then. Many people refused to believe that Arion was saved by a dolphin. But none could **deny** that he was the most **gifted** musician.

A Greek legend



About the Author

James Arthur Baldwin (1924 – 1987) was an American novelist, essayist, playwright, poet and social critic.

confessed: when people confess they say they have done or said something wrong

charmed: liked very much

undergone: went through or suffered

deny: refuse to accept

gifted: If you are a gifted person you can do something very well though you haven't learnt it from someone.

Can you find the author's picture?
Paste it here.



Comprehension

A. Write true or false.

1. Arion was not a famous musician.
2. A musical competition was held at Corinth.
3. Arion won the first prize in the competition.

B. Answer the questions.

1. Why did Arion travel to the island of Sicily?
2. What happened there?
3. What did the captain and the sailors of the ship want to do with Arion?

C. Read the lines and answer the questions.

1. *"I promise that as soon as it is over, I will jump into the sea."*
 - a. Who made this promise and to whom?
 - b. What did he want to do before keeping his promise?
 - c. Why did he say he would jump into the sea himself?
2. *He had told the king about the adventures he had undergone, but the king would not believe him.*
 - a. Who is **he** and who is **the king**?
 - b. What adventures **had** he undergone?
 - c. Why did the **king** not believe him?

D. Think and answer.

1. Why did Arion wish to sing his favourite song before being killed?
2. Why do you think the dolphin saved Arion's life?
3. Did the king believe what Arion said about the sailor? How do you know?



Language in Use

Possessive Pronoun

What is the difference between these two sentences?

- This is my garden.
- This garden is mine.

Do they mean the same or say something different?

A possessive word shows who or what something belongs to. Possessive pronouns are not followed by nouns.

Examples:

mine, ours, his, hers, theirs, yours

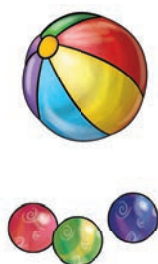
A. Choose the correct answer.

1. I have already eaten my lunch. But Nandita is saving (her/hers) until later.
2. You've eaten your cake. You can't have (my/mine).
3. We will easily win against section C in the cricket match. (Our/Ours) is the stronger team.
4. We have our books here. Those must be (their/theirs).
5. I like this car. Is it (your/yours)?

B. Fill in the blanks with possessive pronouns.

1. We live in that house. It is
2. This TV belongs to Mr and Mrs Goyal. It is
3. I don't think this bat is This has a black handle grip. My bat has an orange one.
4. His aunt made this clay model. It is
5. My cousin and I made that kite. It is

Demonstrative Pronouns and Demonstrative Adjectives



..... is a ball.
..... is a pot.
..... are marbles.
..... are leaves.



Can you write what the girl is saying by filling in the blanks?

Demonstrative pronouns point to specific things. **This, that, these** and **those** are the pronouns.

Examples:

- This is my favourite sports channel.
- That is a bird with a sweet voice.

C. Fill in the blanks with the correct demonstrative pronouns.

1. Stop making that noise. I don't like
2. You've missed it. was the last bus to the city.
3. is the ball I lost yesterday. I am glad I found it.
4. Jishnu told me you won the 100-metre race. Is right?
5. Give me the keys. are not yours.

Demonstrative pronouns can stand alone.

Example:

I wanted that.

Demonstrative adjectives point to specific things and describe them at the same time. They come before nouns that they describe.

Example:

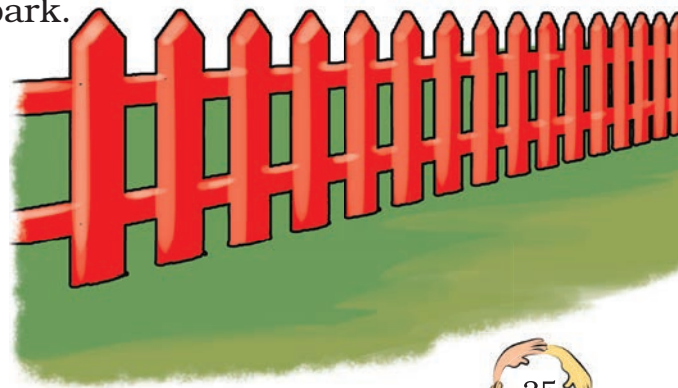
That pastry was delicious.

D. Fill in the blanks with the correct demonstrative adjectives.

1. girl on the other side of the room loves to dance.
2. oranges in my hand are too sour to eat.
3. dark clouds on the horizon will bring rain.
4. people in the picture with me are my friends.
5. building on the other end of the street is very old.

E. Underline the demonstrative adjectives and demonstrative pronouns. If it is a pronoun write P, if it is an adjective write A.

1. Those children are having great fun at the park.
2. This car belongs to the Sharmas.
3. I don't want these.
4. Who has painted that fence red?
5. Who has done this?





Word Power

Read these sentences.

- Arion **overheard** the captain and the sailors plotting to kill him.
- He told the king about the adventures he had **undergone**.

There are many words which begin with the words **over** and **under**.

A. Match the words to their meanings.

A	B
1. undercover	a. below the surface of the earth
2. overnight	b. above the level of one's head
3. underground	c. fail to judge someone's strength or intelligence
4. overhead	d. during one night
5. underestimate	e. secret

B. Use appropriate words from Column A in the above exercise to complete the sentences.

1. The new apartment blocks have parking facilities.
2. Don't put too many things in the luggage space.
3. The inspector was part of an mission to rescue the children.
4. Don't Rohit just because he hasn't performed well this year.
5. My parents won't allow me to stay at my friend's house.

Read the following words.

1. **te**levision **tele**phone **tele**gram
2. **tri**angle **tri**colour **tri**cycle

Look at the groups of letters in bold in the above sets of words. **Tele-** or **tri-** is added before the base words, **vision** and **angle**, to make new words. These are known as **prefixes**. In fact, **pre-** itself is a prefix!

The prefix **tele-** means 'far off' and **tri-** means 'three'.

C. Match the words in column A with their meanings in column B. One has been done for you.

A	B
1. telescope	a. a vehicle with three wheels
2. triangle	b. having three colours
3. tricycle	c. an electronic device used for communication
4. telephone	d. a three-sided figure
5. tricolour	e. an electronic device used for watching programmes
6. television	f. an instrument to view distant objects



Punctuation

Rewrite the paragraph with the correct punctuation marks. Use capital letters, full stops, commas, question marks and exclamation marks wherever required.

my pet is a goldfish i call it goldie it was gifted to me by my mother on my birthday goldie was bought from a pet store i keep it in a goldfish bowl it does not eat the food we eat it eats a special food it keeps swimming the whole day i wonder if it ever gets tired



Listening and Speaking

A. Listen to the words and repeat them.

slap flip black flat sleep flow
bless flew slow blind flower

B. Listen to these words and repeat them.

1. The black fly slipped on the slate.
2. The river flows, oh, so slow!
3. The flower nods as the wind blows.



C. Listen to the conversation. Then say true or false.

1. Dolphins produce sound by sucking air through their lips.
2. Dolphins squeak, click, moan and whistle.

3. Dolphins can tell who is who by listening to their screams.
4. They also talk by moving their heads, clapping their jaws
and blowing bubbles at one another.
5. They use their fins and long noses to tickle one another.
6. They can tell each other about where danger lies and where
food can be found.



Writing

- A. Imagine you are Arion. Write a descriptive paragraph in 100 words about how the dolphin saved your life and brought you safely back ashore. You may begin like this:**

I'm Arion, the musician. Many years ago, I was captured by pirates. I was returning home. They took all my money. Then they forced me to jump into the sea. But before jumping overboard, I managed to sing my favourite song...

- B. Imagine you are the King who heard Arion's story. Write ten sentences about what you felt initially and then your reaction later.**



Activity

Play the game 'Musical Statues'. Form a circle. One child stands in the middle and sings his/her favourite song. Others dance, hop or skip. Everyone has to freeze as soon as the child in the middle stops singing. Take turns to stand in the middle and sing your favourite song. Sing slowly, at first, and then faster. The child must pause suddenly in the middle of the song. Look at the statues in their various poses. Repeat till every child gets a chance to sing a song.



5

Good Books

Edgar Guest



Warm-up

What comes to your mind when you think of your favourite books? Discuss in pairs. Tell each other in what ways they are special to you.



Good books are friendly things to own.
If you are busy they will wait.
They will not call you on the phone,
Or wake you if the hour is late.

They stand together row by row,
Upon the low shelf or the high.
But if you're lonely, this you know—
You have a friend or two nearby.

The friendship of books is real.
They're never noisy when you're **still**.
They won't disturb you at your meal.
They'll **comfort** you when you are ill.

They'll help you **pass** the time away,
They'll give you advice if you need.
You have true friends for night and day,
If you have some good books to read.

still: not moving
comfort: make you feel better

pass: spend time



About the Poet

Edgar Guest was born in Birmingham, England, on 20 August 1881. He started working for a newspaper when he was 14 years old. He started writing rhymes. His brother printed his first two books, *Home Rhymes* and *Just Glad Things*, in small editions. He published more than 20 volumes of poetry and is thought to have written over 11,000 poems. He also appeared on radio and television.



Comprehension

A. Answer the questions.

1. What kind of friends are **they**?
2. What would you do if you wanted **their** company?
3. Why is **their** friendship thought to be real?

B. Read the lines and answer the questions.

1. *They will not call you on the phone,
Or wake you if the hour is late.*
 - a. Who are **they** that the speaker is referring to in the lines above?
 - b. Why won't **they** wake you late at night?
2. *They'll comfort you when you are ill.*
 - a. How would **they** comfort you when you are ill?
 - b. Name other things that can comfort you when you are ill.

C. Think and answer.

1. What tells you that you can trust **them** completely?
2. Books are patient and comforting. Explain how.



Appreciation

Personification is giving human qualities to animals or objects.

A. In the poem, the books are described to be doing many things that you would expect only a human being to do. For example, *If you are busy they will wait.*

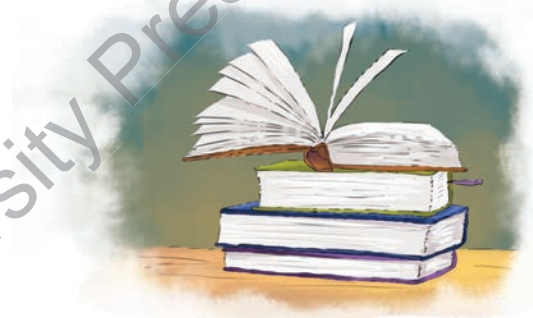
1. What are the other things that the books do or don't do?

2. Match the objects/animals with the things they do.

	Object/Animal	Action
1.	wind	roars
2.	tree	makes faces
3.	storm	laughs
4.	monkey	dances
5.	hyena	whispers

Read the first stanza of the poem.

Good books are friendly things to own. **A**
If you are busy they will wait. **B**
They will not call you on the phone, **A**
Or wake you if the hour is late. **B**



The words in the end of the lines that rhyme are marked with the same letter. The words **own** and **phone** are marked with A, **wait** and **late** with B. Taken together they make a pattern or scheme. This is called the rhyme scheme. So, the rhyme scheme of the first four lines is ABAB.

B. Now write the rhyme scheme of the second stanza of the poem *Good Books*.



Writing

There are certain things we notice about poetry. Sometimes they rhyme, sometimes they do not. They can be short or can be long.

- A. Make a list of all the other things you noticed about the poems you have read.**
- B. Write about your favourite story/poem and why you like it.**
- C. Think of a story/film the ending of which you want to change. Write your changed version and how you changed it.**



Activity

Visit your school library. Look at the different types of books—big books, small books, picture books, comic books, short stories, novels, poems, plays, reference books, dictionaries. Ask the librarian to show you each type. Choose any five storybooks, poetry books or comic books. Note down the titles. Borrow them one by one and read all the five. You may ask your teacher or librarian to help you choose the titles.





6

Try, Try Again

James Baldwin



Warm-up

Have you heard these words before? When was the last time someone told you to try again? Why?

There was once a famous ruler of Tartary whose name was Tamerlane. Like Alexander the Great, he wished to become the master of the whole world.

So he raised a great army and made war against other countries. He conquered many kings and burned many cities.

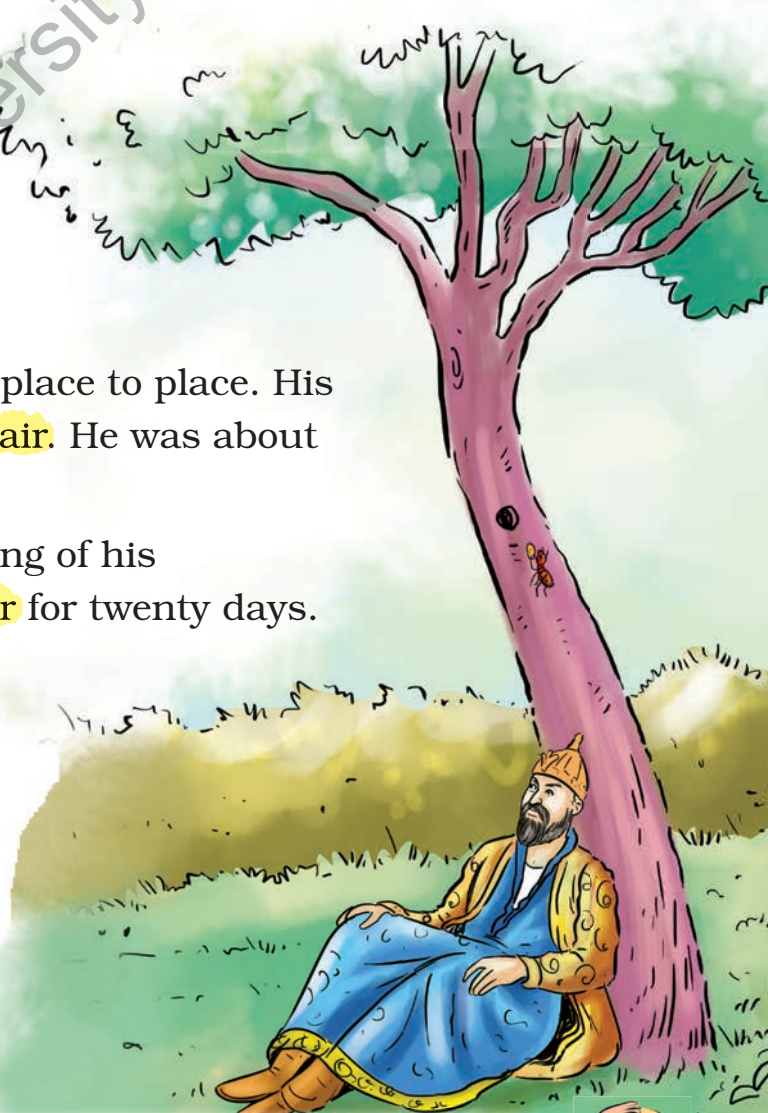
But at last his army was beaten; his men were scattered; and Tamerlane fled alone from the field of battle.

For a long time he wandered in fear from place to place. His foes were looking for him. He was in **despair**. He was about to lose all hope.

One day he was lying under a tree, thinking of his **misfortunes**. He had now been a **wanderer** for twenty days. He could not hold out much longer.

Suddenly he saw a small object creeping up the trunk of the tree. He looked more closely and saw that it was an ant. The ant was carrying a grain of wheat as large as itself.

As Tamerlane looked, he saw that there was a hole in the tree only a little way



despair: feeling of having no hope
misfortunes: bad luck, or unlucky events

wanderer: a person who keeps travelling from place to place with no home

above, and that this was the home of the ant. "You are a brave fellow, Mr Ant," he said; "but you have a heavy load to carry."

Just as he spoke, the ant lost its footing and fell to the ground. But it still held on to the grain of wheat.

A second time it tried to carry its load up the rough trunk of the tree, and a second time it failed.

Tamerlane watched the brave little insect. It tried three times, four times, a dozen times, twenty times—but always with the same result.

What does a **dozen** mean?

Then it tried the twenty-first time. Slowly, one little step at a time, it crept up across the rough place where it had slipped and fallen so often. The next minute it ran safely into its home, carrying its precious load.

"Well done!" said Tamerlane. "You have taught me a lesson. I, too, will try, try again, till I succeed."

What does a **lesson** mean?

And this he did.

Of what other story does this remind you?



Comprehension

A. Write true or false.

1. Tamerlane was the ruler of Tartary.
2. Tamerlane could not defeat any enemy.
3. The ant was carrying a grain of wheat.
4. A horse taught Tamerlane a lesson.

B. Answer the questions.

1. What did Tamerlane want to do?
2. *He had now been a wanderer for twenty days.* Who had been a **wanderer for twenty days** and why?
3. Did the ant succeed in carrying the grain of wheat all the way to its home at first? How many times did it try?

C. Read the lines and answer the questions.

1. *Suddenly he saw a small object creeping up the trunk of the tree.*
 - a. Who is **he**?
 - b. What was the **small object**?
 - c. Why was the **small object creeping up the trunk of the tree**?
2. *But at last his army was beaten;*
 - a. Whose **army was beaten**?
 - b. What did he do after this?
 - c. What is the meaning of the word **beaten**?

D. Think and answer.

1. Why did Tamerlane want to be like Alexander the Great?
2. Which other stories does this tale remind you of?
3. What lesson did Tamerlane learn?



Language in Use

Articles

Read this sentence.

The food looked splendid, but he could not take a single bite.

What is the function of the words in bold in the sentences given above?

The is a definite article and is used before a singular noun which stands for a group.

Examples:

- The traveller should be ready for everything.
- The panda is an extremely rare animal.

In the sentences given above, we are not talking about a single traveller or a single panda. Here **traveller** means 'all travellers taken together as a group' and **panda** means 'all pandas'.

Other examples are the bear, the snake, the guitar, the tourist, the customer.

A. Fill in the blanks with a, an or the.

1. camel is called the ship of the desert.
2. I rode on camel the last time I went to the seaside.

3. cactus needs very little water to live.
4. I have big-potted cactus at home.
5. rainforest is home to many kinds of plants, birds and animals.

Let us look at another use of **the**.

We know that **the** is also used when we are talking about a particular person, thing or an animal.

B. Write G in the blanks where the shows a group, and P where the particularly shows someone/something. The first one has been done for you.

1. The sparrow is a very curious bird. **G**
2. The sparrow kept pecking at the mirror.
3. The television was invented by John Logie Baird.
4. Switch off the television please.
5. The goat will eat almost anything.
6. The goat is jumping over the fence.
7. The flute is one of the oldest musical instruments.
8. Please hand me the flute. I want to play it.
9. The dolphin is a very intelligent animal.



Word Power

We add **-er** or **-or** at the end of some words to form new words.

bank + **-er** = banker

teach + **-er** = teacher

act + **-or** = actor

sail + **-or** = sailor



Groups of letters such as **-er** and **-or** added at the end of words to make new words are called **suffixes**.

A. Add -er or -or at the end of the words to make new words. The new words are words used for different professions.

1. sprint.....
2. jail.....
3. inspect.....
4. conduct.....
5. bowl.....
6. report.....
7. collect.....
8. paint.....

B. Write two more such words that are formed by adding the suffixes -er or -or.

Read the following words.

- rich: wealthy, well-off
- peaceful: calm, quiet

The above words are similar in meaning. Words that mean the same are known as **synonyms**.

C. Choose the correct word from the box to complete the table below.

uneven strange accept shine reject

Synonyms		
1. sparkle	shimmer	.....
2. weird	unusual	.....
3. coarse	rough	.....
4. deny	refuse	.....
5. confess	admit	.....



Dictionary Work

Look up a dictionary and guess the words by filling in the blanks.

- You dig with this. a d e
- Black and yellow insect that stings w a
- Another word for dangerous r i y
- Shoe with wheels t e
- How fast something moves e e d

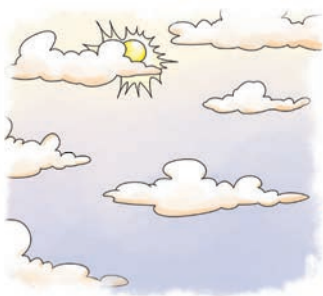


Listening and Speaking

A. Listen to the words and repeat them.

sky skin scream ski skill skip scrap screw

B. Fill in the missing letters and match the words with the correct pictures.



1. s... ..e w

2. s... ..p

3. s...y

4. ...k i

C. Listen to the conversation and answer the questions.

1. What had Peppeto done?
2. Why was it wrong?
3. Do you think Peppeto was really sorry? How do you know?
4. Will Payel talk to him later? What makes you think so?

D. Work in pairs. Look at the cards below. With the help of the cards, role play the argument between Payel and Peppeto, and how they resolve the argument.



greetings – shows her
pencil box – describes it –
compares her pencil box with
Peppeto's – cries when pencil
box is broken – refuses to
talk to Peppeto



greetings –
wants to see it
and is very excited – tries
to say his pencil box is also
nice – asks Payel if pencil box
is repairable – apologises

E. Sit in groups of six and discuss the reasons for quarrels to begin. Say how they can sour friendships. What should you do to make up after a quarrel?



Writing

- A. Have you ever seen any insect/bird/animal in a difficult situation trying repeatedly to get out of it? Describe how the creature manages to get out of the tight spot.
- B. Imagine you are the ant. Describe how, after repeated attempts, it managed to carry the grain of wheat up the tree to its hole. Mention how it felt every time it lost its footing, fell, and had to start anew.



Activity

Work in pairs. Take turns. You have to get out of the maze. How many attempts does it take you to get out of it?





Language in Use



Worksheet 1

A. Tick (✓) the right option.

1. The bird's/birds wings are blue.
2. The traffic/traffic's signal has turned red.
3. Agni's/Agnis cousin is named Varun.
4. I don't like the colour of my uncle/uncle's car.
5. You better hurry up if you don't want to miss the movies/movie's climax.

B. Write the plural forms of the following words.

- | | |
|-----------------|----------------|
| 1. match | 2. thief |
| 3. potato | 4. fish |
| 5. tooth | 6. man |



Word Power

A. Join the words in the two columns using the word **and**. Then, write the expressions in the last column.

A	B	C
1. salt	a. paper	
2. knife	b. butter	
3. pen	c. white	

B. Use the prefixes **in-**, **im-**, **un-** and **dis-** to form new words. You may use a prefix more than once.

- | | |
|----------------|-----------------|
| 1. ....honest | 2. ....fair |
| 3. ....patient | 4. ....possible |
| 5. ....happy | 6. ....correct |



Writing

- A. You are visiting a lovely beach during your holidays. Write a paragraph about what you would like to do during your visit.
- B. Your desk partner has just joined your school. Introduce yourself and ask about his/her previous school and the sports he/she likes to play.



Language in Use



Worksheet 2

A. Tick (✓) the correct possessive pronouns in the sentences.

1. That backpack is my/mine.
2. They live at the end of the road. That house is ours/theirs.
3. I have had lunch, but my sister has still not finished her/hers.
4. Don't forget to take the basket. It is ours/our.

B. Fill in the blanks with a, an or the.

1. boomerang is a flying tool that sometimes returns to the thrower.
2. It's very difficult to catch Frisbee when a stiff wind is blowing.
3. food that you cooked was excellent.
4. Paper was invented by Chinese.



Word Power

A. Look at the words below. Match them with the words in the next box to make word pairs.

tri	over	under	tele		
cycle	board	do	stand	cook	see
load	turn	scope	use	go	vision

B. Add -er or -or at the end of the incomplete words to make meaningful sentences.

1. An act_ _ is a person who acts in movies.
2. A doct_ _ treats us when we are sick.
3. He is the fastest runn_ _ in the world.
4. Our garden_ _ has planted rose plants in the garden.



Writing

A. Write ten sentences describing a railway station.

B. Describe an ant's journey from the dinner table to its anthill.



Comprehension

Read the passage and answer the following questions.

They started merrily up the Alps. A cloudless, deep blue sky looked down on them, for the wind had driven away every little cloud in the night. The fresh green mountain side was bathed in brilliant sunlight, and many blue and yellow flowers had opened up. Heidi was wild with joy and ran from side to side. In one place she saw big patches of fine red primroses, on another spot blue gentians sparkled in the grass, and everywhere the golden rock-roses were nodding to her.

1. Why was the sky cloudless?

.....

2. What made Heidi go wild with joy?

.....



Language in Use

A. Write whether the words are material nouns (MN) or other nouns (ON).

1. plastic
2. Nepal
3. Karthik
4. marble
5. computer
6. garden
7. honey
8. coal
9. anger
10. soap

B. Replace the underlined words with pronouns.

1. Jay is strong. Jay can lift a heavy suitcase.
2. The Sharmas went for a holiday. The Sharmas went to Manali.
3. Seema loves baking. Seema bakes bread at home.
4. Where is my pen? I left the pen here a while ago.
5. Sania plays badminton. Sania has won many medals.

C. Circle the demonstrative pronouns and underline the demonstrative adjectives in the sentences.

1. That bag is mine.
2. Those are his shoes.
3. That car over there is theirs.
4. These are my keys.
5. Would you return these books to the library?



Word Power

A. Circle the synonyms for the main words.

- | | | | |
|-----------|-------|----------|---------|
| 1. walk | run | stroll | jog |
| 2. giggle | laugh | smile | snort |
| 3. leap | jump | hop | skip |
| 4. happy | glad | relieved | hopeful |
| 5. look | see | stare | glare |

B. Match the words to make word pairs.

A	B
1. pilot	a. customer
2. teacher	b. nephew
3. doctor	c. passenger
4. aunt	d. patient
5. shopkeeper	e. student

C. Add **over**, **under**, **tele** or **tri** to complete the words.

1.work
2. ground
3. coat
4. use
5. growth
6. phone
7. line
8. pod



Writing

You found a little puppy, hungry and lying by the roadside. You brought him home, fed and nursed him. Now he is doing fine and you have got a new pet for yourself. Write a letter to your friend describing how it all happened.

Cambridge University Press

Mathematics

Cambridge University Press

warm-up

Solve the crossword using the given clues.

Across

1. Numeral for six hundred eighty-seven
4. Numeral for five hundred eighty-four
5. 312 rounded off to the nearest 10s
6. Greatest 3-digit number
7. 756 rounded off to the nearest 10s
8. Place value of 5 in 856

Down

1. Number that comes just before 651
2. Numeral for 1 more than seven hundred fifty-two
3. Number that comes in between 648 and 650
5. Numeral for three hundred one
7. Standard form of $700 + 4$

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

4-digit Numbers

Observe the banknote given below.

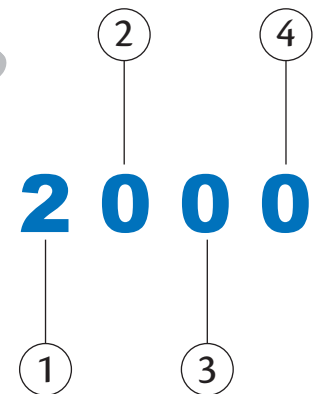


Search and Gain

List down at least 5 security features of ₹ 2000 note.

The given 2000-rupee banknote (₹ 2000) is a **demonetisation** of the Indian rupee. It was released by the Reserve Bank of India (RBI) on 8 November 2016 after the **demonetisation** of ₹ 500 and ₹ 1000 banknotes.

It is a part of the Mahatma Gandhi new series of banknotes with a completely new design. The Indian ₹ 2000-rupee note is the highest and the only 4-digit currency note printed by RBI that is in active circulation.



Let us study about 4-digit numbers in detail.

Divyansh bought 10 packets of thermocol balls for filling the balloons. Each packet of thermocol contained 100 balls. How many thermocol balls did Divyansh buy in all?

Let us count together.

$$1 \text{ packet} = 100 \text{ balls}$$

$$2 \text{ packets} = 100 + 100 = 200 \text{ balls}$$

$$3 \text{ packets} = 200 + 100 = 300 \text{ balls}$$

$$4 \text{ packets} = 300 + 100 = 400 \text{ balls}$$

$$5 \text{ packets} = 400 + 100 = 500 \text{ balls}$$

$$6 \text{ packets} = 500 + 100 = 600 \text{ balls}$$

$$7 \text{ packets} = 600 + 100 = 700 \text{ balls}$$

$$8 \text{ packets} = 700 + 100 = 800 \text{ balls}$$

$$9 \text{ packets} = 800 + 100 = 900 \text{ balls}$$

$$10 \text{ packets} = 900 + 100 = 1000 \text{ balls}$$

Thus, Divyansh has 1000 thermocol balls in all.

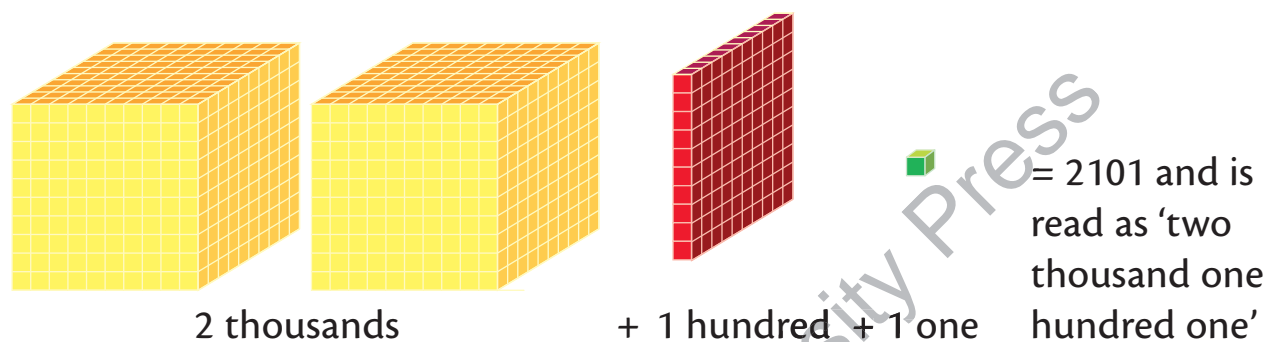
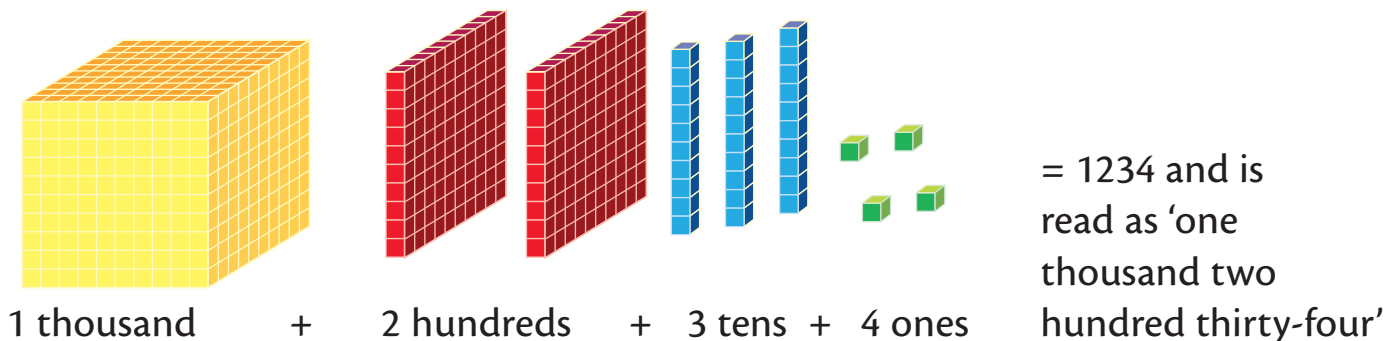
1000 is a 4-digit number and is read as 'one thousand'.

We know that, 999 is the largest 3-digit number. Thus, when we add 1 to it, we get $999 + 1 = 1000$.

Denomination: the face value of a banknote, or coin | **Demonetisation:** to officially stop using particular notes or coins

1000 is the smallest 4-digit number and 9999 is the largest 4-digit number.

Let us now build some 4-digit numbers using blocks.



Mental Maths

Complete the following counting.

- 4000,,,,, 4005,,,,, 4010
- 1021,, 1023,,, 1027,, 1029,
- 8139,,,, 8143,,,, 8147
- 9992,,, 9996, 9997,,
- 5468,,, 5472,,,, 5476

Place Value and Face Value

The **place value** of a digit is its position in that number.

Place value of a digit = Digit \times Position of digit

Teacher's Tip

Ask the students to represent numbers on an abacus for a better understanding of the concept.

For example, place value of 6 in 7268 is $6 \times 10 = 60$ or 6 tens.

Similarly, place value of 8 in 8213 is $8 \times 1000 = 8000$ or 8 thousands.

The **face value** of a digit is its actual value.

For example, face value of 6 in 7268 is 6.

Similarly, face value of 8 in 8213 is 8.

Expanded and Standard Form

The expanded form of a number is the method of expressing the number as the sum of the place values of all its digits.

For example, consider the number 1265.

$$1265 = 1000 + 200 + 60 + 5$$

Or

$$= 1 \times 1000 + 2 \times 100 + 6 \times 10 + 5 \times 1$$

The standard form of a number is a way of expressing the number in figures.

For example, the standard form of $2000 + 300 + 40 + 5$ is 2345.

Let's Practice 1.1

1. Write the following numbers in words.

a. 7286

b. 3003

c. 9999

d. 2083

e. 4585

2. Write the following in numerals.

a. Two thousand six hundred forty-eight

.....

b. One thousand one hundred eleven

.....

c. Eight thousand three hundred seventy-eight

.....

d. One thousand five hundred ten

.....

e. Nine thousand forty

.....

3. Fill in the blanks.

Number	Thousands digit	Hundreds digit	Tens digit	Ones digit
7268	7	.....	.....	8
4298	.....	.....	.....	.....
.....	8	5	4	3
4 8....	.....	2	.....	6
2001	.....	.....	.....	.....

4. Write the place value and face value of the underlined digits.

Number	Place value	Face value
26 <u>8</u> 3		
<u>4</u> 927		
105 <u>9</u>		
6 <u>8</u> 53		
44 <u>4</u> 1		

5. Write the expanded form of the following numbers.

- 2839 =
- 2098 =
- 3007 =
- 4211 =
- 3910 =

6. Write the standard form of the following expanded form.

- $2000 + 80 + 1 =$
- $6000 + 400 =$
- $3000 + 7 =$
- 9 thousands + 4 hundreds + 2 tens + 3 ones =
- 7 thousands + 2 hundreds + 9 ones =



Active Maths

Building Numbers

Keep four bowls with thousands, hundreds, tens and ones marked on them. Divide the class into pairs. Place as many stones as possible in each of the bowls but not more than 9. Now, ask each pair to come forward and count the number of stones in each of the bowls and identify the 4-digit number formed. Extend the activity by asking the pair to speak aloud its number name.



Comparison of Numbers

Comparing two numbers means finding which number is smaller and which is larger, out of the given numbers. These are the rules for comparison.

Comparison of two numbers

The number with more number of digits is greater.
Example: $6428 > 938$

If the number of digits in both the numbers are equal, then compare the thousands digit.

The number with greater thousands digit is greater.
Example: $9643 > 8999$

If the thousands digit in both the numbers is equal, then compare their hundreds digit.

The number with greater hundreds digit is greater. Example: $6412 > 6199$

If the hundreds digit in both the numbers is equal, then compare their tens digit.

The number with greater tens digit is greater. Example: $9644 > 9618$

If the tens digit in both the numbers is equal, then compare their ones digit.

The number with greater ones digit is greater. Example: $4262 > 4261$

If the ones digit in both the numbers is equal, then the numbers are equal. Example: $4829 = 4829$

Ascending and Descending Orders

Ascending order means arranging numbers from the smallest to the greatest.

For example, consider the numbers 128, 3814, 8123 and 8213.

Here, 128 is the only 3-digit number among all the given numbers, which are of 4-digits.

Since the rest, 3814, 8123 and 8213, are all 4-digit numbers. So, we compare their thousands place. Hence, 3814 is the smallest out of the three numbers. Now, we compare 8123 and 8213. As their thousands place is the same, so we compare their hundreds place and find that 8213 is the greater of the two. So, we get $3814 < 8123 < 8213$.

Thus, $128 < 3814 < 8123 < 8213$.

Therefore, 128, 3814, 8123, 8213 are arranged in ascending order.

Descending order means arranging numbers from the greatest to the smallest.

For example, consider the numbers 2819, 6500, 9999 and 23.

Here, 23 is a 2-digit number. So, it is the smallest of all the given numbers.

On comparing 2819, 6500, 9999, we get that $9999 > 6500 > 2819$.

Thus, $9999 > 6500 > 2819 > 23$.

Therefore, 9999, 6500, 2819, 23 are arranged in descending order.

Remember

While arranging the numbers in ascending or descending order, always remember:

- A 1-digit number is always smaller than a 2-digit number.
- A 2-digit number is always smaller than a 3-digit number.
- A 3-digit number is always smaller than a 4-digit number and so on...

Let's Practice 1.2

1. Compare the following numbers and write $>$, $<$, or $=$ sign in the given boxes.

a. 4211 1234

b. 9099 9900

c. 4239 999

d. 5311 5311

e. 2801 2809

f. 4813 4813

2. Arrange the following numbers in ascending order.

a. 649, 2133, 1299, 14	
b. 7846, 9000, 4114, 2344	
c. 2022, 2200, 2002, 2020	
d. 6999, 7001, 7300, 7013	
e. 4698, 3399, 2499, 5000	

3. Arrange the following numbers in descending order.

a. 7605, 2609, 2, 6003	
b. 744, 6008, 8060, 8066	
c. 2938, 8392, 9382, 3892	
d. 1221, 1994, 1664, 1212	
e. 4856, 6854, 5468, 8456	

Forming the Greatest and the Smallest Numbers Using the Given Digits Without Repetition

To form the greatest 4-digit number, we follow the given steps.

Step 1: Place the smallest digit at the ones place.

Step 2: Place the next greater digit at the tens place.

Step 3: Place the next greater digit at the hundreds place.

Step 4: Place the greatest digit at the thousands place.

Let us form the greatest 4-digit number using the digits 2, 5, 3, 1, without repetition.

Step 1: 1 is the smallest digit out of the given digits. So, 1 will be placed at the ones place.

			1
Th	H	T	O

Step 2: Next greater digit after 1 is 2. So, 2 is placed at the tens place.

		2	1
Th	H	T	O

Step 3: Next greater digit after 2 is 3. So, 3 is placed at the hundreds place.

	3	2	1
Th	H	T	O

Step 4: The greatest given digit is 5. So, 5 is placed at the thousands place.

5	3	2	1
Th	H	T	O

Thus, 5321 is the greatest number that can be formed using the digits 2, 5, 3 and 1.

To form the smallest 4-digit number, we follow the given steps.

Step 1: Place the greatest digit at the ones place.

Step 2: Place the next greater digit at the tens place.

Step 3: Place the next greater digit at the hundreds place.

Step 4: Place the smallest digit at the thousands place.

Let us form the smallest 4-digit number using the digits 5, 1, 0, 8, without repetition.

Step 1: The greatest digit 8 will be written at the ones place.

Step 2: The next greater digit 5 will be written at the tens place.

Step 3: The next greater digit 1 will be written at the hundreds place.

Step 4: The smallest digit 0 is written at the thousands place.

But, 0 cannot be placed at the thousands digit as the number will become a 3-digit number instead of a 4-digit. So, we place 0 at the hundreds place and 1 at the thousands place.

Thus, 1058 is the smallest number that can be formed using the digits 5, 1, 0 and 8.

			8
--	--	--	---

Th H T O

		5	8
--	--	---	---

Th H T O

	1	5	8
--	--------------	---	---

Th H T O

1	0	5	8
---	---	---	---

Th H T O

Remember

While forming a smallest 4-digit number, if the smallest digit is 0, then write 0 at the hundreds place and the digit greater than 0 at the thousands place.

0 cannot be written at thousands place because then the number will become a 3-digit number instead of a 4-digit number.

With Repetition

To form the greatest 4-digit number using the given three digits (where all digits have to be used), with repetition, we keep the greatest given digit at the thousands and the hundreds place. Then the remaining places (tens and ones) are filled with the remaining digits from the greatest to the smallest.

Let us form the greatest 4-digit number using the digits 5, 0, and 3, when repetition of digits is allowed only once.

5	5		
---	---	--	--

Th H T O

5	5	3	0
---	---	---	---

Th H T O

Here, in the given digits, 5 is the greatest number. So, write 5 at the thousands as well as at the hundreds place.

Now, write the smallest digit 0 at the ones place and next greater digit 3 at the tens place.

Thus, 5530 is the greatest 4-digit number formed using the digits 5, 0 and 3, with repetition.

To form the smallest 4-digit number using the given three digits (where all digits have to be used), with repetition, we keep the smallest given digit at the thousands and the hundreds place. Then the remaining places (tens and ones) are filled with the remaining digits from the smallest to the greatest.

Let us form the smallest 4-digit number using the digits 2, 9 and 0, when repetition of digits is allowed only once.

Since, one digit can be repeated, so we will repeat the smallest digit 0.

But if we write 0 at the thousands and the hundreds place, then the number will become a 2-digit number, so we place 0 at the hundreds and the tens place.

Now, we write the greatest digit 9 at the ones place and the next smallest digit 2 at the thousands place.

Thus, 2009 is the smallest 4-digit number formed using the digits 2, 9 and 0, with repetition.

0	0		
Th	H	T	O
	0	0	
Th	H	T	O
2	0	0	9
Th	H	T	O

Let's Practice 1.3

1. Form the greatest 4-digit number using the following digits, without repetition.

- a. 2, 1, 5, 3 b. 6, 1, 0, 5 c. 8, 9, 7, 1 d. 6, 4, 2, 0 e. 1, 7, 3, 4

2. Form the smallest 4-digit number using the following digits, without repetition.

- a. 2, 1, 6, 4 b. 5, 9, 1, 6 c. 1, 2, 5, 0 d. 4, 7, 0, 1 e. 3, 8, 7, 9

3. Form the greatest and the smallest 4-digit number using the following digits, when repetition of digits is allowed only once.

a. 4, 5, 0

b. 7, 1, 9

c. 7, 2, 5

d. 2, 8, 5

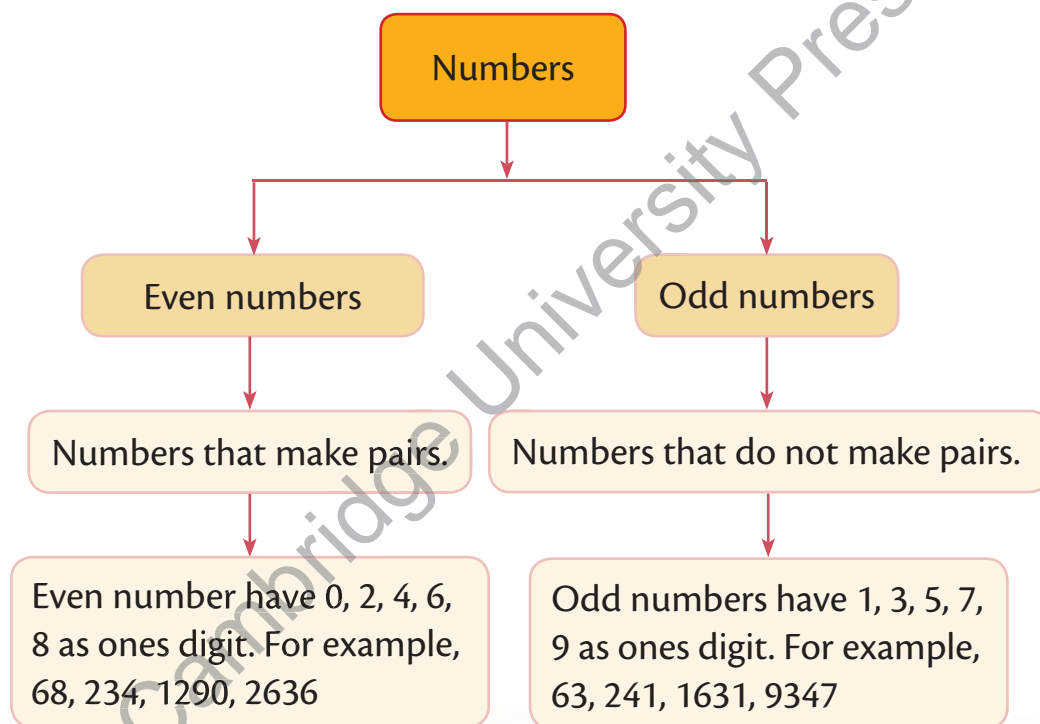
e. 9, 0, 3

Predecessor and Successor

The number that comes just before the given number is called its predecessor. For example, 9268 is the predecessor of 9269.

The number that comes just after the given number is called its successor. For example, 5481 is the successor of 5480.

Even and Odd Numbers



Let's Practice 1.4

1. Write the predecessor of the following numbers.

a. 4269

b. 4999

c. 6901

d. 1000

e. 4100

2. Write the successor of the following numbers.

a. 4919

b. 1618

c. 5299

d. 1000

e. 4999

3. Complete the given table.

Predecessor	Number	Successor
	2619	
		4001
1900		
		9002
	2399	

4. Circle the odd number and cross out the even number.

1890	6473	8299	4658	3005
1551	4085	2800	1652	5701
4309	2859	6878	3084	1853

5. List down all the odd numbers from 3078 to 3100.

6. List down all the even numbers from 9289 to 9303.

Rounding Off Numbers

Many a times, we round off numbers in our statements to make it easy to speak and understand. For example, we often say,

1. There are around 300 people in the wedding hall. While, there might actually be 287 people in the hall.
2. There are around 1000 people in the stadium. While, there might actually be 968 people in the stadium.

So, the rounded off value is not the actual value but just an approximate value.

Rounding off to the nearest 10s

If the ones digit is from 0 to 4, then we change the ones digit to 0. Example: 1193 is rounded off to 1190.

If the ones digit is from 5 to 9, then we change the ones digit to 0 and add 1 to the tens digit. Example: 1085 is rounded off to 1090.

Rounding off to the nearest 100s

If the tens digit is from 0 to 4, then we change the tens and ones digits to 0. Example: 1649 is rounded off to 1600.

If the tens digit is from 5 to 9, then we change the ones and tens digits to 0 and add 1 to the hundreds digit. Example: 3569 is rounded off to 3600.

Example 1: Round off the number 1295 to the nearest 10s.

Solution: Here, the ones digit is 5.

So, 1295 will be rounded off to 1300 to the nearest 10s.

Example 2: Round off the number 2816 to the nearest 100s.

Solution: Here, the tens digit is 1.

So, 2816 will be rounded off to 2800 to the nearest 100s.

Let's Practice 1.5

1. Round off the following numbers to the nearest 10s.

- a. 1216 b. 2893 c. 2801
d. 3009 e. 1091 f. 2876

2. Round off the following numbers to the nearest 100s.

- a. 1684 b. 2891 c. 6060
d. 4928 e. 6875 f. 1201

3. Complete the given table.

Numbers	Rounded off to the nearest 10s	Rounded off to the nearest 100s
2569		
6239		
1698		
4201		
2019		

Explore

Life Connect

Numbers are very useful to us in everyday life. We use numbers when we pay money to purchase any object/article. For example, price of a dress is ₹ 1899, a music system is for ₹ 9999 and so on.

Collect 10 samples of 4-digit numbers showing the quantity or the price of products and paste them on a sheet of paper.

Summary

- The place value of a digit is its position in that number and the face value of the digit is its actual value. Example: The place value of 6 in 4639 is 600 and its face value is 6.
- The expanded form of a number is the method of expressing the number as the sum of the place values of all its digits. Example: $2349 = 2000 + 300 + 40 + 9$
- The standard form of a number is a way of expressing a number in figures. Example: $3000 + 600 + 7 = 3607$
- When the numbers are arranged from the smallest to the greatest, then the numbers are said to be in ascending order. Example: 27, 189, 2300, 4615 are arranged in ascending order.
- When the numbers are arranged from the greatest to the smallest, then the numbers are said to be in descending order. Example: 9000, 6543, 5642, 3200 are arranged in descending order.
- The number that comes just before the given number is called its predecessor. Example: predecessor of 4321 is 4320
- The number that comes just after the given number is called its successor. Example: successor of 5789 is 5790
- Even numbers have 0, 2, 4, 6, 8 as the ones digit and odd numbers have 1, 3, 5, 7, 9 as the ones digit. Example: 2346 is an even number and 3261 is an odd number.
- While rounding off numbers, follow these rules.
 - To the nearest 10s
 - Observe the ones digit. If the ones digit is less than 5, then we change the ones digit to 0 and the digit at the tens place remains the same. Example: 4324 is rounded off to 4320 to the nearest 10s.
 - Observe the ones digit. If the ones digit is equal to or greater than 5, then we change the ones digit to 0 and increase the tens digit by 1. Example: 7269 is rounded off to 7270 to the nearest 10s.
 - To the nearest 100s
 - Observe the tens digit. If the tens digit is less than 5, then we change the tens and ones digits to 0 and the digit at the hundreds place remains the same. Example: 3215 is rounded off to 3200 to the nearest 100s.
 - Observe the tens digit. If the tens digit is equal to or greater than 5, then we change the tens and ones digits to 0 and increase the hundreds digit by 1. Example: 4271 is rounded off to 4300 to the nearest 100s.



1. Find the answers (vertically, horizontally and diagonally) to the following questions using the given grid.

- a. 1187 rounded off to the nearest 10s
- b. 4058 rounded off to the nearest 100s
- c. Standard form of $6000 + 800 + 90 + 3$
- d. Smallest 4-digit even number
- e. Place value of 8 in 2819
- f. Predecessor of eight thousand nine hundred thirty-five

8	9	3	4	0	9
4	1	0	0	9	1
6	8	9	3	9	0
7	0	6	9	9	0
1	0	0	1	9	0
9	8	1	3	7	8

2. Which is greater? Tick (✓) the correct option.

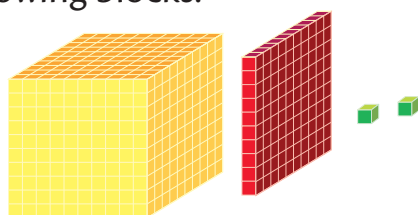
- a. Predecessor of 6958 or Successor of 6955
- b. Predecessor of 9991 or Successor of 9990
- c. Predecessor of 2098 or Successor of 1999
- d. Predecessor of 3241 or Successor of 2289
- e. Predecessor of 4003 or Successor of 4000
- f. Predecessor of 5693 or Successor of 5963

3. Find how many:

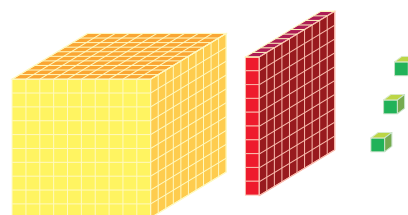
- a. Odd numbers are there between 4500 to 4600.
- b. Even numbers are there from 9801 to 9901.

Assessment

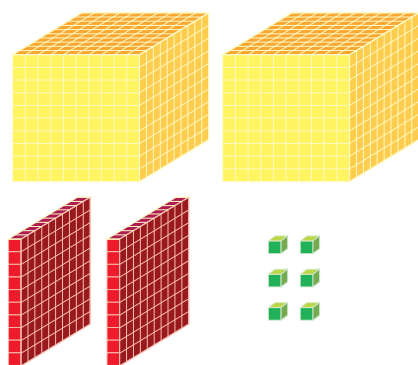
Fabian formed the following numbers A, B, C and D using the following blocks.



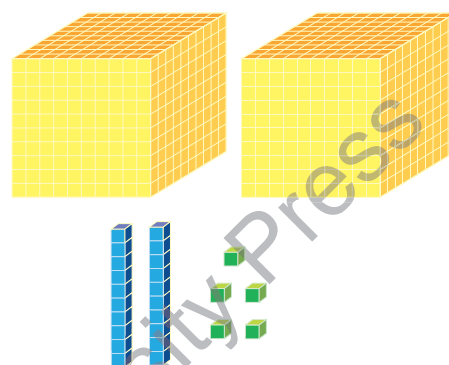
A



B



C



D

Observe the above blocks and answer the following questions.

1. Identify the numbers formed.

a. A b. B c. C d. D

2. Write the number names of the numerals represented. Also, express them using expanded form.

a. A b. B c. C d. D

3. Arrange the numbers represented in descending order.

.....

4. Round off the numbers represented to the nearest 10s.

a. A b. B c. C d. D

5. Write the face value of the hundreds digit of all the numbers.

a. A b. B c. C d. D

Using the above digits, form the greatest and the smallest 4-digit number using the digits A, C and D, when repetition of digits is allowed only once.

Greatest number

Smallest number

Activities

Individual work

Numbers Around Us

Ask everyone to collect cutouts of at least 10 situations (from newspapers or magazines) where numbers are used. Paste the same on the scrapbook. Also, write their number names and specify whether the given number is an even number or an odd number.

Now, find the sum and difference of any two odd/even numbers. Is the sum even or odd?

Check the same for other combinations of numbers.



Group work

Forming Greatest and Smallest Numbers

Make groups of 4. Ask each group to form number chits of the digits 0 to 9 and fold the same. Mix them well. Now, ask any student from each group to pick any one number chit. The number chit which he/she picks up will be placed at the ones place. Ask the rest of the students of the group to pick up chits one by one.

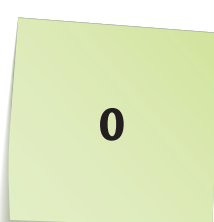
The task is now to form the greatest or the smallest number possible, with the digits in hand. But the twist is that the position of the number on the ones place shall be fixed.

For example, group A picks up the following chits.

Student 1



Student 2



Student 3



Student 4



Now, the numbers formed are:

Greatest 4-digit number = 5203

Smallest 4-digit number = 2053



warm-up

Solve the following sums and match them with the correct answer.

$14 + 6 =$



$8 + 5 =$



$18 + 17 =$



$17 + 8 =$



$20 + 10 =$



$10 + 5 =$



Addition of 3-digit Numbers

Knowledge Hub

The Indian rupee (sign: ₹; code: INR) is the official currency of the Republic of India. The rupee is subdivided into 100 paise, that is, ₹ 1 = 100 p. The outflow of the currency is controlled by the Reserve Bank of India.

Observe the Indian 100-rupee banknote (₹ 100) and 500-rupee banknote (₹ 500), which are the denominations of the Indian rupee.



Search and Gain

State at least five roles of the Reserve bank of India.

Suppose you are at a restaurant. Your father gave these two notes to pay for the bill. Can you tell how much was your bill, if you did not get anything in return?

Let's find out.

Addition of money is done in the same way as that of numbers. Since, 500 and 100 are 3-digit numbers, so we add the ones digit first, then the tens digit and finally the hundreds digit.

Thus, we have,

	H	T	O	
	5	0	0	Step 1: $0 + 0 = 0$ ones
+	1	0	0	Step 2: $0 + 0 = 0$ tens
	6	0	0	Step 3: $5 + 1 = 6$ hundreds

Thus, the bill is for ₹ 600.

Let us now study to add 3-digit numbers in detail.

Without Regrouping

Example: Add 363 and 425.

Solution: Let's add.

Step 1: Arrange the numbers vertically.

Step 2: Add the ones column.

$3 + 5 = 8$ ones.

Step 3: Add the tens column.

$$6 + 2 = 8 \text{ tens.}$$

Step 4: Add the hundreds column.

$$3 + 4 = 7 \text{ hundreds.}$$

$$\text{Thus, } 363 + 425 = 788.$$

	H	T	O
	3	6	3
+	4	2	5
	7	8	8

Remember

The numbers that are added are called addends and their total is called the sum. Here, in the given example, 363 and 425 are addends and 788 is their sum.

Mental Maths

What is?

- 10 more than 127
- 20 more than 145
- 50 more than 323
- 100 more than 450
- 60 more than 200
- 30 more than 256

Let's Practice 2.1

1. Add the following.

a.

	H	T	O
	6	0	3
+			5

b.

	H	T	O
	4	2	6
+			3

c.

	H	T	O
	3	4	5
+		2	3

d.

	H	T	O
	6	7	6
+		2	0

e.

	H	T	O
	5	4	6
+	3	5	2

f.

	H	T	O
	2	4	2
+	1	3	5

2. Add the following numbers.

a. $100 + 8$

b. $314 + 25$

c. $517 + 81$

d. $725 + 214$

e. $619 + 380$

f. $216 + 101$

With Regrouping

Example 1: Add 357 and 465.

Solution: Let's add.

Step 1: Arrange the numbers vertically.

Step 2: Add the ones column.

$7 + 5 = 12$ ones = 1 ten + 2 ones.

Write 2 in the ones column and regroup 1 ten to the tens column.

Step 3: Add the tens column.

$5 + 6 + 1$ (carry over) = 12 tens = 1 hundred + 2 tens.

Write 2 in the tens column and regroup 1 hundred to the hundreds column.

Step 4: Add the hundreds column.

$3 + 4 + 1$ (carry over) = 8 hundreds.

Thus, $357 + 465 = 822$.

	H	T	O
	① 3	① 5	7
+	4	6	5
	8	2	2

Example 2: Add 564 and 639.

Solution: Let's add.

Step 1: Arrange the numbers vertically.

Step 2: Add the ones column.

$4 + 9 = 13$ ones = 1 ten + 3 ones.

Write 3 in the ones column and regroup 1 ten to the tens column.

Step 3: Add the tens column.

$6 + 3 + 1$ (carry over) = 10 tens = 1 hundred + 0 tens.

Write 0 in the tens column and regroup 1 hundred to the hundreds column.

Step 4: Add the hundreds column.

$5 + 6 + 1$ (carry over) = 12 hundreds = 1 thousand + 2 hundreds.

Write 2 in the hundreds column and regroup 1 thousand to the thousands column.

	Th	H	T	O
	①	① 5	① 6	4
+		6	3	9
	1	2	0	3

Step 5: Add the thousands column.

$0 + 0 + 1$ (carry over) = 1 thousand.

Thus, $564 + 639 = 1203$.

Let's Practice 2.2

1. Add the following.

a.

	H	T	O
	4	6	9
+			6

b.

	H	T	O
	5	6	4
+			9

c.

	H	T	O
	8	3	6
+		6	7

d.

	H	T	O
	4	7	8
+		1	3

e.

	H	T	O
	7	6	3
+	1	4	7

f.

	H	T	O
	8	7	3
+	1	0	9

2. Solve the following.

a.

	Th	H	T	O
		8	2	9
+		4	7	7

b.

	Th	H	T	O
		5	7	2
+		5	4	9

c.

	Th	H	T	O
		8	5	6
+		2	8	4

d.

	Th	H	T	O
		3	7	9
+		8	5	4

e.

	Th	H	T	O
		7	5	7
+		8	9	7

f.

	Th	H	T	O
		4	5	9
+		7	9	9

3. Add.

a. $721 + 9$

b. $371 + 39$

c. $342 + 79$

d. $675 + 238$

e. $582 + 683$

f. $321 + 89$

Addition of Three 3-digit Numbers

The rule for adding three numbers is the same as the rule for adding two numbers.

Without Regrouping

Example: Add 152, 124 and 200.

Solution: Let's add.

Step 1: Arrange the numbers vertically.

Step 2: Add the ones column.

$$2 + 4 + 0 = 6 \text{ ones.}$$

Step 3: Add the tens column.

$$5 + 2 + 0 = 7 \text{ tens.}$$

Step 4: Add the hundreds column.

$$1 + 1 + 2 = 4 \text{ hundreds.}$$

$$\text{Thus, } 152 + 124 + 200 = 476.$$

H	T	O
1	5	2
1	2	4
2	0	0
4	7	6

With Regrouping

Example: Add 125, 364 and 253.

Solution: Let's add.

Step 1: Arrange the numbers vertically.

Step 2: Add the ones column.

$$5 + 4 + 3 = 12 \text{ ones} = 1 \text{ ten} + 2 \text{ ones.}$$

Write 2 in the ones column and regroup 1 ten to the tens column. +

Step 3: Add the tens column.

$$2 + 6 + 5 + 1 \text{ (carry over)} = 14 \text{ tens} = 1 \text{ hundred} + 4 \text{ tens.}$$

Write 4 in the tens column and regroup 1 hundred to the hundreds column.

Step 4: Add the hundreds column.

$$1 + 3 + 2 + 1 \text{ (carry over)} = 7 \text{ hundreds.}$$

$$\text{Thus, } 125 + 364 + 253 = 742.$$

H	T	O
①1	①2	5
3	6	4
2	5	3
7	4	2

Let's Practice 2.3

1. Add the following.

a.

	H	T	O
	2	5	1
	1	3	5
+	4	0	1

b.

	H	T	O
	5	0	0
	3	6	9
+	1	3	0

c.

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

d.

	H	T	O
	5	4	4
	3	2	6
+	1	2	2

e.

	H	T	O
	3	7	4
	2	2	0
+	2	2	8

f.

	H	T	O
	5	7	9
	1	7	8
+	1	4	9

2. Add.

a. $234 + 123 + 100$

b. $421 + 271 + 106$

c. $561 + 300 + 400$

d. $435 + 343 + 165$

e. $671 + 128 + 134$

f. $452 + 378 + 272$



Active Maths

Tricks to Add

Let us use some tricks to add our sums quickly, without using a paper and pen.

1. If one of the addends have 9 as the ones digit.

Let us add 125 and 49.

Here, 49 has 9 as the ones digit, so we split 49 as $50 - 1$.

$$\Rightarrow 125 + 49 = 125 + 50 - 1 = 175 - 1 = 174 \text{ (Since, } 125 + 50 \text{ is easy to add).}$$

2. Split any one of the addends to the nearest 10s.

Let us add 102 and 77.

Here, 102 is closest to 100, so we split 102 as $100 + 2$.

So, $102 + 77 = 100 + 2 + 77 = 100 + 79 = 179$.

3. Use the place value of the digits.

Let us add 367 and 425.

Now, $367 = 300 + 60 + 7$ and $425 = 400 + 20 + 5$

Thus, $367 + 425 = 300 + 60 + 7 + 400 + 20 + 5$

$$\begin{aligned} &= (300 + 400) + (60 + 20) + (7 + 5) = 700 + 80 + 12 \\ &= 700 + 92 = 792. \end{aligned}$$

Now, use these tricks and amaze your friends and parents.

Word Problems

To solve any word problem, read each word of the question very carefully and select the numbers to be added and then do the calculation.

Example: Rajan bought a shirt for ₹350 and a trouser for ₹799.

Find the total amount spent.

Solution: Cost of shirt = ₹350

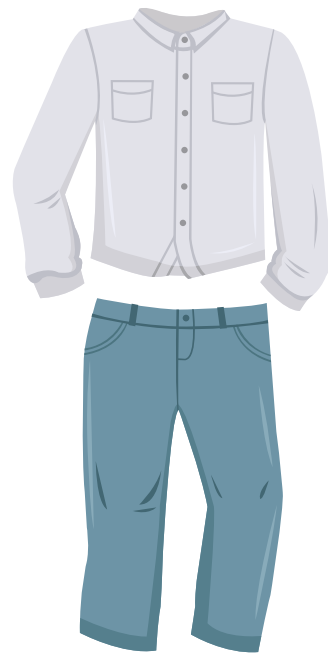
Cost of trouser = ₹799

Total amount spent = ₹350 + ₹799

$$= ₹1149$$

Thus, the amount spent by Rajan is ₹1149.

₹		3	5	0
+ ₹		7	9	9
₹	1	1	4	9





Active Maths

Frame and Act

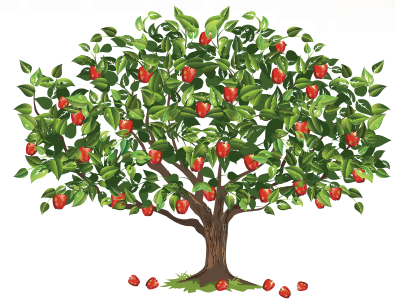
Ask the students to make up their own word problems or addition story problems. Now, each one will enact his/her problem one by one to the class. Let the class understand the problem carefully and write it on a sheet of paper.

Extend the activity by allowing the class to solve the problem demonstrated. Also, let the students exchange their work with his/her partner in order to check each other's work.



Let's Practice 2.4

1. In a garden, there are 123 apple trees and 124 mango trees. Find the total number of trees in the garden.



2. In a food festival, 326 people visited on day 1 and 300 people visited on day 2. How many people visited the festival in all?



3. Manjeet sold 167 flowers on Monday. If he sold 37 more flowers on Tuesday than he did on Monday, then find the number of flowers he sold on Tuesday.



4. Sanaya is searching for the meaning of a word in the dictionary. If she is on page 167 and the meaning of the word she is searching for is 56 pages ahead, then at what page she has to reach?



5. It's Sam's birthday. His father bought a cake for ₹450, snacks for ₹345 and return gifts for ₹650. Find the amount his father spent in all.



6. In a test match series, Ranbeer scored 367 runs in test match 1, 489 runs in test match 2 and 217 runs in test match 3. Find the total runs scored by Ranbeer.



Properties of Addition

Order Property

While adding any two numbers, the order of addends does not matter.

For example, $243 + 154 = 154 + 243 = 397$

Zero Property

The number remains the same when zero is added to the number.

For example, $562 + 0 = 562$

Successor

On adding 1 to any number, we get the number just after it and it is known as the successor of that number.

For example, $459 + 1 = 460$. Here, 460 is the successor of 459.

Let's Practice 2.5

1. Fill in the blanks.

a. $341 + \dots = 341$

b. $0 + \dots = 809$

c. $419 + 0 = \dots$

d. $524 + \dots = 277 + 524$

e. $652 + 739 = 739 + \dots$

f. $\dots + 159 = 159 + 724$

2. Write the successor of the following numbers.

a. 628

b. 401

c. 986

d. 612

e. 773

f. 491

Estimating Sums

To estimate means to round off to the nearest possible number.

To estimate sums means to round off the numbers first and then add. This makes addition very simple, easy and quick.

Example 1: Round off the numbers 978 and 154 to the nearest 10s and then find the sum. Also, find the actual sum.

Solution: Let's find out.

Estimated sum

Rounding off the numbers to the nearest 10s, we have

$$978 \longrightarrow 980$$

$$154 \longrightarrow 150$$

Hence, $980 + 150 = 1130$, so estimated sum is 1130.

Actual sum

$$978 + 154 = 1132$$

Example 2: Round off the numbers 345 and 387 to the nearest 100s and then find the sum. Also, find the actual sum.

Solution: Let's find out.

Estimated sum

Rounding off the numbers to the nearest 100s, we have

345 \longrightarrow 300

387 \longrightarrow 400

Now, $300 + 400 = 700$, so estimated sum is 700.

Actual sum

$$345 + 387 = 732$$

Let's Practice 2.6

1. Estimate the following sums by first rounding off the numbers to the nearest 10s. Also, find the actual sum.
 - a. 122 and 129
 - b. 756 and 233
 - c. 401 and 397
 - d. 272 and 178
 - e. 275 and 652
 - f. 139 and 596
2. Estimate the following sums by first rounding off the numbers to the nearest 100s. Also, find the actual sum.
 - a. 842 and 102
 - b. 263 and 332
 - c. 319 and 577
 - d. 655 and 821
 - e. 564 and 696
 - f. 752 and 699
3. Prabhu scored 437 marks and Mohit scored 456 marks out of 500 in the terminal exams. Estimate the total marks scored by them by first rounding off the numbers to the nearest 10s.
4. An ice cream vendor has 221 vanilla-flavoured and 369 strawberry-flavoured ice creams. Estimate how many ice creams of both kinds does the ice cream vendor has by first rounding off the numbers to the nearest 10s?

5. There are 438 songs saved in a DVD and 384 songs saved in another DVD. Estimate the total number of songs saved in both DVDs by first rounding off the numbers to the nearest 10s.

Life Connect

Explore

Bring a menu card of any restaurant, café, or food chain having a rate list of minimum 10 food items. Select three of your favourite items and write down the prices of these food items on a paper and find their sum. Then exchange with your partner and do peer checking.

Summary

- The numbers that are added are called addends and their total is called the sum.
- To solve any word problem, read each word of the question very carefully, select the numbers to be added and then do the calculation.
- While adding any two numbers, the order of addends does not matter. Example: $350 + 125 = 125 + 350$
- The number remains the same when zero is added to the number. Example: $259 + 0 = 259$
- On adding 1 to any number, we get the number just after it and is known as the successor of the number. Example: 421 is the successor of 420.
- To estimate sums means to round off the numbers first and then add.

Brain Teaser

Compare the following using < or > sign.

- | | |
|---|---|
| 1. $132 + 479$ <input type="text"/> $251 + 333 + 192$ | 2. $298 + 567 + 132$ <input type="text"/> $298 + 566 + 120$ |
| 3. $457 + 293 + 103$ <input type="text"/> $566 + 721 + 102$ | 4. $500 + 245 + 312$ <input type="text"/> $999 + 211$ |
| 5. $250 + 125$ <input type="text"/> $350 + 100$ | 6. $250 + 355$ <input type="text"/> $175 + 235 + 123$ |

Assessment



Solve the given addition sums. Also, highlight the answer of each question in the given grid to find the hidden letter.



101	300	620	332	839	638	728	1204	444
672	798	571	612	513	973	1156	881	100
1192	614	891	777	784	737	673	1000	274
103	755	692	500	819	872	501	586	1201
583	1187	712	783	617	579	897	900	1100
950	960	699	810	680	492	956	987	526
673	979	814	890	1138	1178	542	850	819
999	991	856	685	632	1310	482	633	662
1134	651	691	540	739	148	666	825	910
845	500	830	555	892	920	568	893	561

1. $688 + 110$
2. $285 + 414$
3. $671 + 316$
4. $410 + 241$
5. $403 + 89$
6. $742 + 139$
7. $288 + 537$
8. $296 + 384$
9. $281 + 102 + 203$
10. $536 + 452 + 199$
11. $179 + 421 + 379$
12. Write the numeral and then add.
 - a. Two hundred sixty-seven and three hundred sixty-six
 - b. Four hundred thirty-nine and three hundred sixteen
 - c. Eight hundred ninety and one hundred one
 - d. Seven hundred forty-five and two hundred eleven
 - e. Two hundred thirty-five; four hundred twelve and two hundred forty-six
 - f. Four hundred fifty-five; six hundred twenty and one hundred twenty-nine
13. Estimate the following sums by first rounding off the numbers as directed.
 - a. 439 and 366 to the nearest 10s
 - b. 688 and 291 to the nearest 100s
 - c. 541 and 415 to the nearest 10s
 - d. 503 and 396 to the nearest 100s
 - e. 304 and 197 to the nearest 10s
 - f. 122 and 175 to the nearest 100s
14. A fruit shop has 225 red apples and 389 green apples. Find the total number of apples the shop has.
15. A movie hall sold 366 tickets on Saturday and 484 tickets on Sunday. Find the total number of tickets sold on both the days.



Activities

Individual work

What's the Price?

Collect the price of 10 items from your home, say, cornflakes box, ketchup bottle, juice pack and so on. Now, prepare a list of these items on the given table and find the total price.

Item/Product	Price
1.	₹
2.	₹
3.	₹
4.	₹
5.	₹
6.	₹
7.	₹
8.	₹
9.	₹
10.	₹
Total Price	

Group work

Estimate Sums

Work in pairs. Make 50 paper chits with any of the 3-digit number written on each chit. Put these chits in a bowl. Ask any one student from the pair to pick two chits from the bowl. Now, the pair will estimate the sum by first rounding off the numbers to the nearest 10s or 100s without using a paper and pen. Also, find the actual sum.

The team that gives the correct answer in minimum time will be the winner.

517

719

346

593

warm-up

Solve the following.



$$37 - 8 =$$

$$24 - 12 =$$

$$68 - 29 =$$

$$95 - 30 =$$

$$46 - 36 =$$

Subtraction of 3-digit Numbers

Knowledge Hub

The symbol, ₹ is the currency sign of the Indian rupee. The sign was designed by D. Udaya Kumar. It was presented to the public by the Government of India on 15 July 2010.

Look at the scenario below.

Maya went with her mother to buy school shoes. The cost of the pair of shoes was ₹ 300. Her mother gave the shopkeeper a ₹ 500 note.



Search and Gain

Find out how the ₹ symbol was selected.

Can you tell how much money will she get back in return. Let's find out.

Subtraction of money is done in the same way as that of numbers. Since, 500 and 300 are 3-digit numbers, therefore, we subtract the ones digits first, then the tens digits and finally the hundreds digits.

Thus, we have,

	H	T	O	
	5	0	0	Step 1: $0 - 0 = 0$ ones
-	3	0	0	Step 2: $0 - 0 = 0$ tens
	2	0	0	Step 3: $5 - 3 = 2$ hundreds

Thus, she gets back ₹ 200 from the shopkeeper.



Let us now study to subtract 3-digit numbers in detail.

Without Regrouping

Example: Subtract 154 from 489.

Solution: Let's subtract.

Step 1: Arrange the numbers vertically.

Step 2: Subtract the ones column.

$$9 - 4 = 5 \text{ ones.}$$

Step 3: Subtract the tens column.

$$8 - 5 = 3 \text{ tens.}$$

Step 4: Subtract the hundreds column.

$$4 - 1 = 3 \text{ hundreds.}$$

Thus, $489 - 154 = 335$.

H	T	O
4	8	9
1	5	4
3	3	5

Remember

The number that is to be subtracted is called the subtrahend, the number from which a number is subtracted is called the minuend and the result of subtraction is called the difference. Here, in the given example, 489 is the minuend, 154 is the subtrahend and 335 is the difference.

Mental Maths

What is?

- 10 less than 170
- 30 less than 195
- 50 less than 580
- 70 less than 879
- 20 less than 959
- 30 less than 240

Let's Practice 3.1

1. Subtract the following.

a.

H	T	O
7	1	7
—		4

b.

H	T	O
6	9	9
—		5
		2

c.

H	T	O
4	2	9
—		1
		5

d.

H	T	O
7	8	4
—		5
		3

e.

H	T	O
8	6	8
—		3
		5
		5

f.

H	T	O
9	9	9
—		6
		6
		6

2. Subtract the following numbers.

a. $196 - 5$

b. $895 - 62$

c. $984 - 73$

d. $857 - 537$

e. $467 - 321$

f. $593 - 293$

With Regrouping

Example: Subtract 632 from 820.

Solution: Let's subtract.

Step 1: Arrange the numbers vertically.

Step 2: Subtract the ones column.

Since, we cannot subtract 2 from 0

so, we regroup 2 tens and 0 ones.

Now, 2 tens + 0 ones = 1 ten + 10 ones.

Subtracting, we have $10 - 2 = 8$ ones.

Step 3: Subtract the tens column.

Since, 1 ten is regrouped by ones column, so we are left with $2 - 1 = 1$ ten.

Now, we cannot subtract 3 from 1. So, we regroup 8 hundreds and 1 ten.

8 hundreds + 1 ten = 7 hundreds + 11 tens.

Subtracting, we have $11 - 3 = 8$ tens.

Step 4: Subtract the hundreds column.

$7 - 6 = 1$ hundred.

Thus, $820 - 632 = 188$.

	H	T	O
	7 8	11 2	10 0
–	6	3	2
	1	8	8

Mental Maths

Subtract:

1. 30 from 620

2. 90 from 550

3. 70 from 910

4. 80 from 720

5. 50 from 330

6. 60 from 450

Let's Practice 3.2

1. Subtract the following.

a.

	H	T	O
	5	7	6
–			9

b.

	H	T	O
	5	7	2
–		9	8

c.

	H	T	O
	8	0	0
–		6	5

d.

	H	T	O
	9	5	3
–	3	6	7

e.

	H	T	O
	5	5	7
–	2	8	8

f.

	H	T	O
	7	1	0
–	2	5	6

2. Subtract.

a. $352 - 8$

b. $562 - 95$

c. $600 - 122$

d. $835 - 666$

e. $942 - 399$

f. $870 - 294$



Active Maths

Subtract by Expansion

Let us use the place value of the digits to subtract quickly, without using a paper and pen.

Let us subtract 343 from 654.

Now, $343 = 300 + 40 + 3$ and $654 = 600 + 50 + 4$

Thus, $654 - 343 = (600 + 50 + 4) - (300 + 40 + 3)$

$$= (600 - 300) + (50 - 40) + (4 - 3) = 300 + 10 + 1 = 311$$

Now, use this trick and amaze your friends and parents.

Word Problems

To solve any word problem, read each word of the question very carefully, select the numbers to be subtracted and then do the calculation.

Example: Roy had a total of 550 songs downloaded in his computer. If out of these songs, 235 songs are patriotic songs and the remaining are folk songs, then find the number of folk songs in his computer.

Solution: Total number of songs = 550

Number of patriotic songs = 235

Folk songs = $550 - 235$

= 315

Thus, the number of folk songs in his computer are 315.



	H	T	O
	5	4	10
-	2	3	5
	3	1	5

Let's Practice 3.3

1. A florist had 460 flowers in her shop in the morning. She used 330 flowers to make bouquets and kept the remaining flowers. If she sold only bouquets by the evening, find the number of flowers left unsold in the shop.



2. On the first day, 983 people visited the carnival. If the number of adults was 563, then find out how many children visited the carnival on that day.



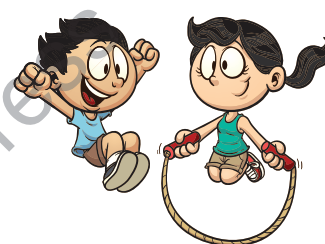
3. Surya scored 156 runs in the first test match and 75 runs in the second test match. Find out how many more runs did Surya score in the first test match.



4. Imaad started reading a novel that had 690 pages, but he could read only 517 pages in two weeks. How many pages are still left for Imaad to read?



5. Sanaya and Mani were playing a game together. If Sanaya scored 775 points and Mani scored 658 points in the game, find out how many more points did Sanaya score.



6. Maneet gave an online test of 800 marks. If Maneet scored 352 marks and the minimum qualifying marks is 400, then find the number of marks by which Maneet fell short of qualifying.



Properties of Subtraction

Zero Property

When zero is subtracted from a number, the difference is the number itself.

For example, $621 - 0 = 621$

Number from Itself

When a number is subtracted from itself, the difference is always zero.

For example, $256 - 256 = 0$

Predecessor

On subtracting 1 from any number, we get the number just before it and it is known as the predecessor of that number.

For example, $751 - 1 = 750$. Here, 750 is the predecessor of 751.

Remember

There is no order property for subtraction because
 $108 - 116 \neq 116 - 108$.

Let's Practice 3.4

1. Fill in the blanks.

a. $261 - \dots = 261$

b. $\dots - 0 = 557$

c. $674 - 1 = \dots$

d. $983 - 983 = \dots$

e. $199 - \dots = 0$

f. $784 - \dots = 783$

2. Write the predecessor of the following numbers.

a. 945

b. 489

c. 721

d. 783

e. 312

f. 999

Estimating Differences

To estimate the difference means rounding off the numbers first and then subtracting them. This makes subtraction very simple, easy and quick.

Example 1: Round off the numbers 362 and 587 to the nearest 10s and then find the difference. Also, find the actual difference.

Solution: Let's find out.

Estimated difference

Rounding off the numbers to the nearest 10s, we have

$$362 \longrightarrow 360$$

$$587 \longrightarrow 590$$

Now, $590 - 360 = 230$, so estimated difference is 230.

Actual difference

$$587 - 362 = 225.$$

Example 2: Round off the numbers 532 and 267 to the nearest 100s and then find the difference. Also, find the actual difference.

Solution: Let's find out.

Estimated difference

Rounding off the numbers to the nearest 100s, we have

$$532 \longrightarrow 500$$

$$267 \longrightarrow 300$$

Now, $500 - 300 = 200$, so the estimated difference is 200.

Actual difference

$$532 - 267 = 265.$$

Let's Practice 3.5

1. Estimate the following differences by first rounding off the numbers to the nearest 10s. Also, find the actual difference.
a. 236 and 432 b. 379 and 455 c. 498 and 623 d. 549 and 932
2. Estimate the following differences by first rounding off the numbers to the nearest 100s. Also, find the actual difference.
a. 120 and 231 b. 637 and 919 c. 212 and 598 d. 450 and 789
3. Maya scored 339 marks in the first terminal test and 488 marks in the second terminal test. Estimate her improvement in marks by first rounding off the numbers to the nearest 10s.
4. A cafeteria sold 659 cups of coffee and 199 cups of tea in a day. Estimate how many more cups of coffee were sold in comparison to tea by first rounding off the numbers to the nearest 10s?
5. In a state-level drawing competition, 438 male students and 699 female students participated. Estimate the difference between the male and female participants by first rounding of the numbers to the nearest 100s.



Life Connect



Whenever you go out for shopping with your parents, help them check the bill. Calculate the total price of things purchased. Also, calculate the money your parents should get back after paying the bill. Discuss your experience the next day in class.

Summary

- The number that is to be subtracted is called the subtrahend.
- The number from which a number is subtracted is called the minuend.
- The result of subtraction is called the difference.
- To solve any word problem, read each word of the question very carefully, select the numbers to be subtracted and then do the calculation.
- When zero is subtracted from a number, the difference is the number itself.
Example: $653 - 0 = 653$
- When a number is subtracted from itself, the difference is always zero. Example:
 $357 - 357 = 0$
- On subtracting 1 from a number, we get the number just before it and it is known as the predecessor of that number. Example: 237 is the predecessor of 238.
- To estimate the difference means rounding off the numbers first and then subtracting them.

Brain Teaser

1. John ordered food for ₹ 530 for home delivery. He gave a ₹ 500 note and a ₹ 100 note to the delivery boy. On receiving the balance, he gave ₹ 20 tip to the delivery boy. What amount of money is left with John?
2. A total of 850 cartons were loaded in a truck to be delivered at four different shops. If the truck delivered 127 cartons at the first shop, 240 cartons at the second shop and 287 cartons at the third shop, then find the number of cartons that were delivered at the fourth shop.



3. Shobit had ₹ 999 with him. He went to a shop and purchased a T-shirt for ₹ 249, a watch for ₹ 499 and a pair of socks for ₹ 149. Find the total amount of bill that Shobit has to pay and the amount that will be left with Shobit after shopping.



Solve the given subtraction problems. Also, highlight the answer in the given grid to find the way for the bunny to reach his carrot.



580	300	180	27	839	538	674	739
672	798	571	354	513	973	156	281
192	614	891	289	784	737	673	800
103	655	692	100	819	872	501	586
583	187	712	251	109	162	163	400
450	560	699	810	680	113	185	368
673	800	814	890	138	178	542	278
999	991	856	685	632	310	482	430
134	651	691	540	739	148	666	232



1. $398 - 285$
2. $299 - 136$
3. $819 - 657$
4. $700 - 449$
5. $699 - 345$
6. $307 - 198$
7. $422 - 395$
8. Write the numeral and then subtract.
 - a. Five hundred eighty-seven and two hundred nineteen
 - b. Three hundred forty-four and one hundred twelve
 - c. Eight hundred eighty-nine and six hundred eleven
 - d. Six hundred forty-five and three hundred fifty-six
 - e. Five hundred fifty-seven and three hundred seventy-two
9. Estimate the difference of the following by first rounding off the numbers as directed.
 - a. 289 and 111 to the nearest 10s
 - b. 798 and 431 to the nearest 100s
 - c. 865 and 435 to the nearest 10s
 - d. 749 and 596 to the nearest 100s
10. Shilpa had ₹850 with her when she went to the market and had ₹270 when she came back. If she spent the money for purchasing her books, then find the cost of the books.
11. The cost of a yellow dress is ₹893 and that of a red dress is ₹638. Estimate to the nearest 100s, the difference in the prices of these two dresses.



Activities

Individual work

Frame and Act

Ask the students to make up their own word problems or subtraction story problems. Now, each one will enact his/her problem one by one to the class. Let the class understand the problem carefully and write it on a sheet of paper.


Extend the activity by allowing the class to solve the problem demonstrated. Also, let the students exchange their work with his/her partner in order to check each other's work.

Group work

Check Your Subtraction

Work in pairs. Ask each pair to frame at least 10 subtraction problems with their solution.

Now, each pair will exchange their sheet with another pair. Let them check the answers of all the subtraction problems by doing addition, as shown below.



If $49 - 36 = 13$,
then $13 + 36 = 49$

If $285 - 173 = 112$,
then $112 + 173 = 285$



1. Write the following numbers in words.

- a. 2017 b. 1994 c. 3625
d. 7421 e. 4598 f. 9107

2. Write the place value and face value of the underlined digits in the following numbers.

	Place Value	Face Value
a. <u>1</u> 426
b. <u>9</u> 657
c. 7 <u>6</u> 03
d. 65 <u>2</u> 3

3. Write the expanded form of the following numbers.

- a. 4819 b. 2019 c. 3910
d. 4591 e. 4719 f. 5591

4. Arrange the following numbers in descending order.

- a. 1942, 3678, 149, 8510 b. 3920, 1609, 123, 4763
.....
c. 9042, 959, 6944, 4578 d. 1383, 2958, 7621, 3204
.....

5. Form the greatest and the smallest 4-digit number, when repetition of digits is allowed only once.

- a. 3, 0, 7 b. 4, 1, 9 c. 5, 1, 0 d. 9, 0, 3 e. 4, 5, 1

6. Round off the following numbers.

- a. 2365 to the nearest 10s =
b. 4124 to the nearest 100s =
c. 3420 to the nearest 100s =
d. 8588 to the nearest 10s =



1. State whether the following statements are true or false.

- While adding any two numbers, the order of addends does not matter.
- The numbers that are added are called addends.
- When we add any number to zero, we always get zero as the answer.
- Adding 1 to any number is known as the predecessor of that number.



2. Add.

- $134 + 94 + 19$
- $239 + 152 + 275$
- $447 + 248 + 290$
- $649 + 254 + 132$

3. Subtract the following and write the answers in words.

- Six hundred twenty-four – Five hundred sixty-nine
- Eight hundred eighty-six – Three hundred fifty-one
- Four hundred thirty-seven – Two hundred twenty-five
- Seven hundred forty-eight – One hundred twelve

4. Estimate the following differences by first rounding off the numbers to the nearest 100s. Also, find the actual differences.

- 878 and 643

	–	

Actual difference =

- 598 and 421

	–	

Actual difference =

- 930 and 489

	–	

Actual difference =

5. Solve the following word problems.

- Maya sold 193 red roses, 159 white roses and 186 pink roses. How many roses did Maya sell in all?



b. Riya went for shopping. She bought tops for ₹ 750, a skirt for ₹ 580 and accessories for ₹ 620. Find the total amount that Riya spent on shopping.



c. Jyoti bought shoes worth ₹ 350. If she gave ₹ 500 to the shopkeeper, then how much amount the shopkeeper will return?



d. Ravi's mother prepared 132 muffins for a party and kept them in the refrigerator. If Ravi ate 7 muffins, then how many muffins are left in the refrigerator for the guests?



Cambridge University Press

1. Solve the crossword below using the given clues.

Across

- c. Difference between 975 and 289
- d. Standard form of $2000 + 300 + 10$
- f. Smallest 4-digit number formed using the digits 0, 1, 5, when repetition of digits is allowed only once
- g. Numeral for four thousand three hundred eighty-seven
- i. Greatest 4-digit number formed using the digits 0, 7, 1, 8, without repeating the digits
- j. Place value of 5 in 1590

Down

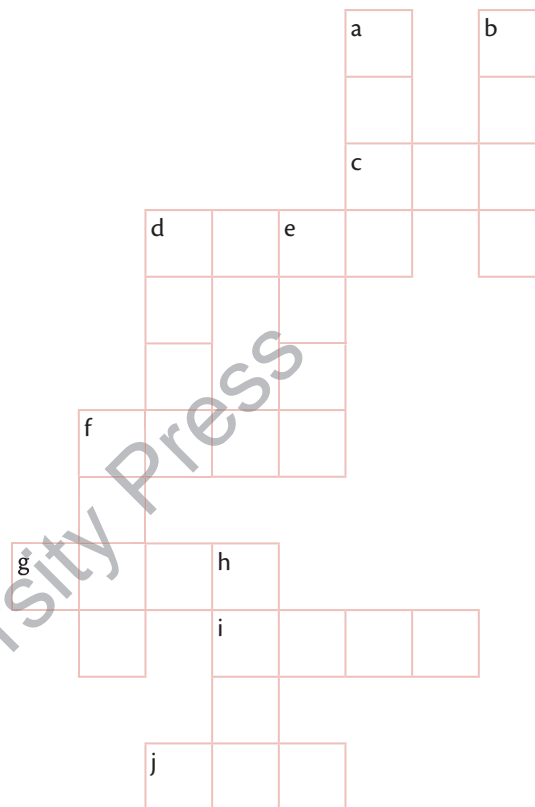
- a. Round off 4563 to the nearest 10s
- b. Successor of 1968
- d. Predecessor of 2301
- e. Sum of 956 and 589
- f. Estimate the sum of 589, 256 and 179 by first rounding off the numbers to the nearest 10s
- h. Round off 7793 to the nearest 100s

2. Write the following numbers in words. Also, write the place value and the face value of the highlighted digits.

Numbers	Number names	Place value	Face value
2456			
7225			
9060			
4381			

3. Form the greatest 4-digit number using the given digits, without repetition. Also, write the expanded form of the same.

- a. 3, 4, 7, 1 b. 4, 0, 2, 7 c. 5, 9, 2, 4 d. 3, 1, 0, 5 e. 4, 7, 9, 3



4. Write the successor of the following numbers.

a. 896

b. 185

c. 199

d. 969

e. 666

f. 400.....

5. Fill in the blanks.

a. $180 + \dots = 180$

b. $990 - 299 = \dots$

c. $543 + \dots = 343 + 543$

d. $715 - \dots = 715$

e. $345 + 291 = \dots$

f. $420 - 218 = \dots$

6. Write 'T' for true and 'F' for false.

a. $890 - 220 = 670$

b. $340 + 191 = 531$

c. $173 + 645 = 818$

d. $600 + 444 = 1444$

e. $450 - 291 = 157$

f. $253 + 100 + 56 = 410$

7. Arrange the following numbers in ascending order.

a. 9342, 2163, 8760, 5221

b. 5684, 1243, 10, 2981

c. 6002, 4114, 9000, 8991

d. 8771, 4405, 8801, 531

8. Estimate the sum/difference of the following numbers by first rounding off the numbers as directed.

a. $232 + 117$ to the nearest 10s

b. $727 - 279$ to the nearest 100s

9. There were 628 students on a school trip from two different schools. If there were 345 students from one school, then how many students were there from the other school?

10. A balloon seller had a bunch of 115 balloons. If 16 of them blew away, then how many balloons are still left with him?

Answer Key

Chapter 1 – Numbers

Warm-up

Across	Down
1. 687	1. 650
4. 584	2. 753
5. 310	3. 649
6. 999	5. 301
7. 760	7. 704
8. 50	

Mental Maths

- 4001, 4002, 4003, 4004, 4006, 4007, 4008, 4009
- 1022, 1024, 1025, 1026, 1028, 1030
- 8140, 8141, 8142, 8144, 8145, 8146
- 9993, 9994, 9995, 9998, 9999
- 5469, 5470, 5471, 5473, 5474, 5475

Let's Practice 1.1

- Seven thousand two hundred eighty-six
 - Three thousand three
 - Nine thousand nine hundred ninety-nine
 - Two thousand eighty-three
 - Four thousand five hundred eighty-five
- a. 2648 b. 1111 c. 8378 d. 1510 e. 9040
-

Number	Thousands digit	Hundreds digit	Tens digit	Ones digit
7268	7	2	6	8
4298	4	2	9	8
8543	8	5	4	3
4286	4	2	8	6
2001	2	0	0	1

4.

Number	Place value	Face value
2683	80	8
4927	4000	4
1059	9	9
6853	800	8
4441	40	4

- $2839 = 2000 + 800 + 30 + 9$
 - $2098 = 2000 + 90 + 8$
 - $3007 = 3000 + 7$
 - $4211 = 4000 + 200 + 10 + 1$
 - $3910 = 3000 + 900 + 10$
- a. 2081 b. 6400 c. 3007 d. 9423 e. 7209

Let's Practice 1.2

- >
 - <
 - >
 - =
 - <
 - =

2.

a. 14, 649, 1299, 2133
b. 2344, 4114, 7846, 9000
c. 2002, 2020, 2022, 2200
d. 6999, 7001, 7013, 7300
e. 2499, 3399, 4698, 5000

3.

a. 7605, 6003, 2609, 2
b. 8066, 8060, 6008, 744
c. 9382, 8392, 3892, 2938
d. 1994, 1664, 1221, 1212
e. 8456, 6854, 5468, 4856

Let's Practice 1.3

- 5321
 - 6510
 - 9871
 - 6420
 - 7431
- 1246
 - 1569
 - 1025
 - 1047
 - 3789
- 5540, 4005
 - 9971, 1179
 - 7752, 2257
 - 8852, 2258
 - 9930, 3009

Let's Practice 1.4

- 4268
 - 4998
 - 6900
 - 999
 - 4099
- 4920
 - 1619
 - 5300
 - 1001
 - 5000
-

Predecessor	Number	Successor
2618	2619	2620
3999	4000	4001
1900	1901	1902
9000	9001	9002
2398	2399	2400

- Odd number: 1551, 4309, 6473, 4085, 2859, 8299, 3005, 5701, 1853
 - Even number: 1890, 2800, 6878, 4658, 1652, 3084
- 3079, 3081, 3083, 3085, 3087, 3089, 3091, 3093, 3095, 3097, 3099
- 9290, 9292, 9294, 9296, 9298, 9300, 9302

Let's Practice 1.5

- 1220
 - 2890
 - 2800
 - 3010
 - 1090
 - 2880
- 1700
 - 2900
 - 6100
 - 4900
 - 6900
 - 1200
-

Numbers	Round off to the nearest 10s	Round off to the nearest 100s
2569	2570	2600
6239	6240	6200
1698	1700	1700
4201	4200	4200
2019	2020	2000

Brain Teaser

- 1190
 - 4100
 - 6893
 - 1000
 - 800
 - 8934

2. a. Predecessor of 6958 b. Successor of 9990
c. Predecessor of 2098 d. Predecessor of 3241
e. Predecessor of 4003 f. Successor of 5963
3. a. 50 b. 50

Assessment

1. a. 1102 b. 1103 c. 2206 d. 2025
2. a. One thousand one hundred two, $1000 + 100 + 2$
b. One thousand one hundred three, $1000 + 100 + 3$
c. Two thousand two hundred six, $2000 + 200 + 6$
d. Two thousand twenty-five, $2000 + 20 + 5$
3. 2206, 2025, 1103, 1102
4. a. 1100 b. 1100 c. 2210 d. 2030
5. a. 1 b. 1 c. 2 d. 0

Greatest number: 2210, smallest number: 1002

Chapter 2 – Addition

Warm-up

20 13 35 25 30 15

Mental Maths

1. 137 2. 165 3. 373 4. 550 5. 260 6. 286

Let's Practice 2.1

1. a. 608 b. 429 c. 368
d. 696 e. 898 f. 377
2. a. 108 b. 339 c. 598
d. 939 e. 999 f. 317

Let's Practice 2.2

1. a. 475 b. 573 c. 903
d. 491 e. 910 f. 982
2. a. 1306 b. 1121 c. 1140
d. 1233 e. 1654 f. 1258
3. a. 730 b. 410 c. 421
d. 913 e. 1265 f. 410

Let's Practice 2.3

1. a. 787 b. 999 c. 797
d. 992 e. 822 f. 906
2. a. 457 b. 798 c. 1261 d. 943 e. 933 f. 1102

Let's Practice 2.4

1. 247 2. 626 3. 204
4. 223 5. ₹1445 6. 1073

Let's Practice 2.5

1. a. 0 b. 809 c. 419
d. 277 e. 652 f. 724
2. a. 629 b. 402 c. 987
d. 613 e. 774 f. 492

Let's Practice 2.6

1. a. 250, 251 b. 990, 989 c. 800, 798
d. 450, 450 e. 930, 927 f. 740, 735
2. a. 900, 944 b. 600, 595 c. 900, 896
d. 1500, 1476 e. 1300, 1260 f. 1500, 1451
3. 900 4. 590 5. 820

Brain Teaser

1. < 2. > 3. < 4. < 5. < 6. >

Assessment

1. 798 2. 699 3. 987 4. 651
5. 492 6. 881 7. 825 8. 680
9. 586 10. 1187 11. 979
12. a. 267, 366; 633 b. 439, 316; 755
c. 890, 101; 991 d. 745, 211; 956
e. 235, 412, 246; 893 f. 455, 620, 129; 1204
13. a. 810 b. 1000 c. 960 d. 900 e. 500 f. 300
14. 614 15. 850

Chapter 3 – Subtraction

Warm-up

29 12 39 65 10

Mental Maths

1. 160 2. 165 3. 530 4. 809 5. 939 6. 210

Let's Practice 3.1

1. a. 713 b. 647 c. 414
d. 251 e. 513 f. 333
2. a. 191 b. 833 c. 911
d. 320 e. 146 f. 300

Mental Maths

1. 590 2. 460 3. 840 4. 640 5. 280 6. 390

Let's Practice 3.2

1. a. 567 b. 474 c. 735
d. 586 e. 269 f. 454
2. a. 344 b. 467 c. 478
d. 169 e. 543 f. 576

Let's Practice 3.3

1. 130 2. 420 3. 81
4. 173 5. 117 6. 48

Let's Practice 3.4

1. a. 0 b. 557 c. 673
d. 0 e. 199 f. 1
2. a. 944 b. 488 c. 720
d. 782 e. 311 f. 998

Let's Practice 3.5

1. a. 190, 196 b. 80, 76
c. 120, 125 d. 380, 383
2. a. 100, 111 b. 300, 282
c. 400, 386 d. 300, 339
3. 150 4. 460 5. 300

Brain Teaser

1. ₹50 2. 196 cartons
3. Amount to pay: ₹897, money left: ₹102

Assessment

1. 113 2. 163 3. 162 4. 251
5. 354 6. 109 7. 27

8. a. 587, 219; 368 b. 344, 112; 232
 c. 889, 611; 278 d. 645, 356; 289
 e. 557, 372; 185
9. a. 180 b. 400 c. 430 d. 100
10. ₹580 11. ₹300

Worksheet 1

1. a. Two thousand seventeen
 b. One thousand nine hundred ninety-four
 c. Three thousand six hundred twenty-five
 d. Seven thousand four hundred twenty-one
 e. Four thousand five hundred ninety-eight
 f. Nine thousand one hundred seven
2. a. 1000, 1 b. 9000, 9 c. 600, 6 d. 20, 2
3. a. $4000 + 800 + 10 + 9$ b. $2000 + 10 + 9$
 c. $3000 + 900 + 10$ d. $4000 + 500 + 90 + 1$
 e. $4000 + 700 + 10 + 9$ f. $5000 + 500 + 90 + 1$
4. a. 8510, 3678, 1942, 149 b. 4763, 3920, 1609, 123
 c. 9042, 6944, 4578, 959 d. 7621, 3204, 2958, 1383
5. a. 7730, 3007 b. 9941, 1149 c. 5510, 1005
 d. 9930, 3009 e. 5541, 1145
6. a. 2370 b. 4100 c. 3400 d. 8590

Worksheet 2

1. a. T b. T c. F d. F
2. a. 247 b. 666 c. 985 d. 1035
3. a. Fifty-five b. Five hundred thirty-five
 c. Two hundred twelve d. Six hundred thirty-six
4. a. 300, 235 b. 200, 177 c. 400, 441
5. a. 538 b. ₹1950
 c. ₹150 d. 125

Sample Test Paper

1.

Across	Down
c. 686	a. 4560
d. 2310	b. 1969
f. 1005	d. 2300
g. 4387	e. 1545
i. 8710	f. 1030
j. 500	h. 7800

2.

Numbers	Number names	Place value	Face value
2456	Two thousand four hundred fifty-six	400	4
7225	Seven thousand two hundred twenty-five	7000	7
9060	Nine thousand sixty	0	0
4381	Four thousand three hundred eighty-one	300	3

3. a. $7431, 7000 + 400 + 30 + 1$
 b. $7420, 7000 + 400 + 20$
 c. $9542, 9000 + 500 + 40 + 2$
 d. $5310, 5000 + 300 + 10$
 e. $9743, 9000 + 700 + 40 + 3$
4. a. 897 b. 186 c. 200 d. 970 e. 667 f. 401
5. a. 0 b. 691 c. 343 d. 0 e. 636 f. 202
6. a. T b. T c. T d. F e. F f. F
7. a. 2163, 5221, 8760, 9342 b. 10, 1243, 2981, 5684
 c. 4114, 6002, 8991, 9000 d. 531, 4405, 8771, 8801
8. a. 350 b. 400
9. 283
10. 99 balloons



Cambridge University Press

Science



Chapter 1

Living and Non-living Things

Chapter Objectives

- ◆ Know what are living and non-living things
- ◆ Differentiate between living and non-living things

LIVING AND NON-LIVING THINGS

Living things need air, food and water. They breathe, move, grow, feel and produce their own kind.

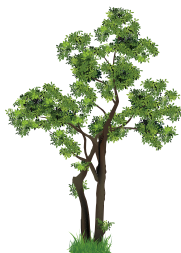
Non-living things do not need air, food and water. They do not breathe, move, grow, feel or produce their own kind.



a. Lion



b. Human beings



c. Trees

Living things



a. Car



b. Ball



c. Doll

Non-living things

All living things are natural. They cannot be made by humans.

Among many non-living things, some are made by humans while others are natural.



a. Sun



b. Cloud

Natural non-living things



a. Engine



b. Trumpet

Human-made non-living things

INFO HUB

- Plants do not move from one place to another but they show movement in body parts.
- Non-living things, such as car, can move from one place to another. But they do not move on their own.

Quick Check 1

Meet Hershey! Hershey is a fun-loving dog.



Meet Jacob! Jacob is a toy dog.



List the things that Hershey, the dog can do while Jacob, the toy cannot.
One is done for you.

- ◆ Hershey can run. Jacob cannot run.
- ◆
- ◆
- ◆

Differences Between Living and Non-living Things

All living things have some **characteristics** that make them different from non-living things. Let us learn about them.

Living things need food, water and air.

All living things need food to live. The food they eat gives them **energy** to do various activities. It keeps them healthy and helps them to grow.

Plants can make their own food using sunlight, water and air, by the process of photosynthesis. On the other hand, animals cannot make their own food. They eat plants or other animals.



A plant growing in sunlight



A jackal eating the flesh of another animal



A girl eating food

Non-living things do not need air, food and water.

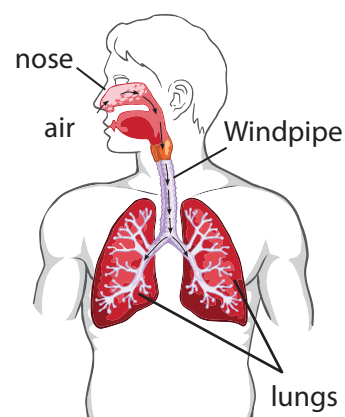
Living things breathe.

All living things need air to breathe. If there is no air, living things will die. Living things have special organs for breathing. Humans breathe through their nose. Air enters the nose, passes through the windpipe and reaches the lungs. Land animals like cats, dogs, horses and zebras also have lungs for breathing.

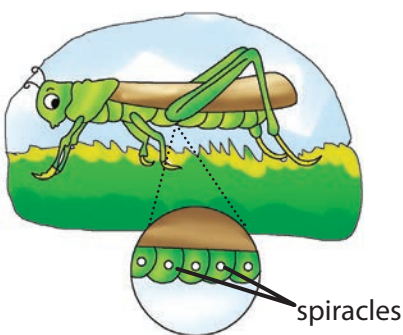
Insects like grasshoppers breathe through tiny holes (called **spiracles**) spread all over their body.

Aquatic animals like fish have gills. These gills help them to take in oxygen dissolved in water.

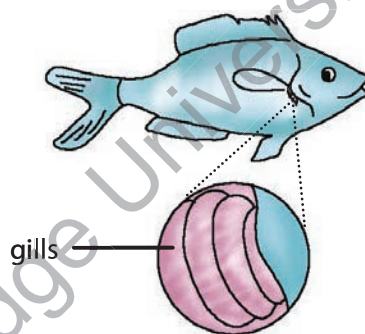
Plants breathe through tiny pores present in their leaves called **stomata**.



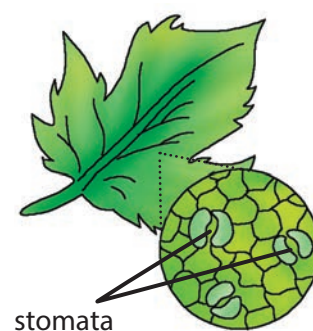
Air enters through the nose and then into the lungs.



Grasshoppers have spiracles.



Fish have gills.



Plants have stomata.

Non-living things do not breathe.

Living things move.

Why do most living things move from one place to another? Discuss.

Plants and animals differ in the type of movements. Plants are fixed to the soil with their roots and do not move from one place to another. However, they move their parts. For example, the touch-me-not plant (*Mimosa*) closes its leaves upon touching.

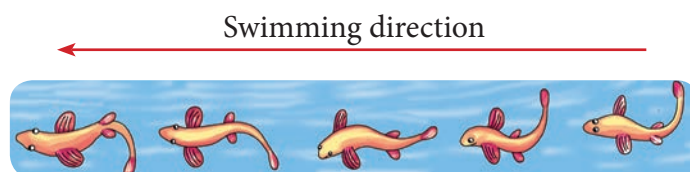


Leaves of 'touch-me-not' plant close when we touch them.

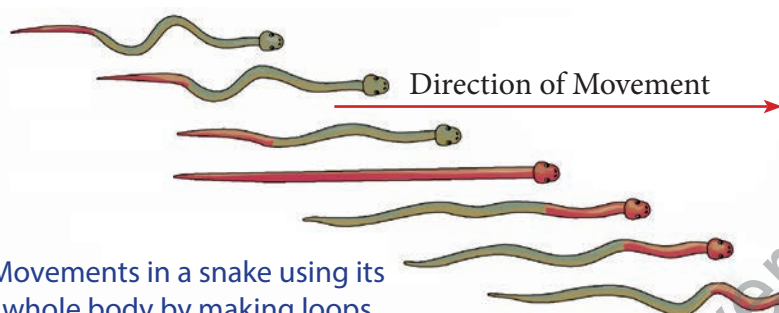
Animals move on their own from one place to another in search of food, shelter or to protect themselves from their enemies. Some animals like cats and cows move with their legs. Birds and insects fly with the help of their wings. Fish move with the help of their fins and tail. Snakes and earthworms use their whole body to move.



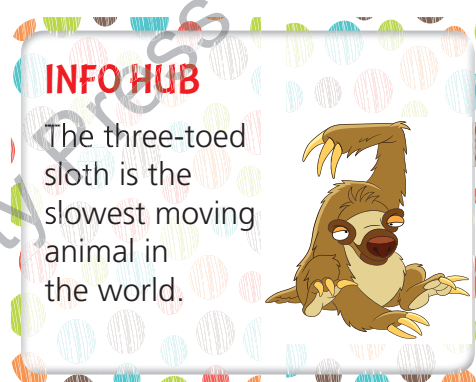
Movements in a bird using its wings



Movements in a fish using its fins and tail



Movements in a snake using its whole body by making loops



Non-living things do not move on their own.

Living things feel and respond to their surroundings.

What do you do when you feel hungry? How do you come to know that someone is knocking at the door? When you get hurt, do you feel the pain? All living things feel with the help of sense organs. The five sense organs are eyes, ears, nose, skin and tongue.

Just like animals, plants also feel. We should not harm them.

Life Connect



A dog uses its to sniff.

A cat cleans itself using its

We hear with our

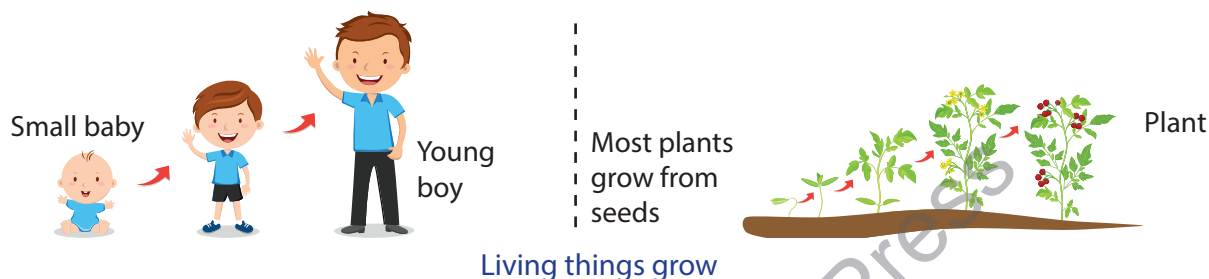


Think of other animals that use their sense organs to perform specific tasks. For example, special body parts called **antennae** help the insects such as butterflies and grasshoppers feel the changes around them. Ants also have antennae. Eagles have a good eyesight and can see their prey from **afar**.

Non-living things neither feel anything nor do they respond to their surroundings.

Living things grow.

You must have seen your photograph when you were a small baby. You were much smaller than what you are today. Living things change their shape and size when they grow. Puppies grow into dogs, while kittens grow into cats. When we sow a seed, it grows into a small baby plant which eventually grows and becomes a large plant. So, all living things take birth, grow, become old and die.



Non-living things do not grow.

INFO HUB

The **approximate** time for which a living thing lives is known as its **lifespan**. All living things have a definite lifespan. An elephant has a lifespan of about 70 years.

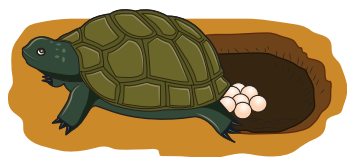


Living things reproduce

Living things have the ability to give birth to their own kind. This process is called **reproduction**.

Some animals like crows and turtles lay eggs. These eggs **hatch** and a new baby comes out of each egg. Some animals directly give birth to young ones. For example, cats, horses, monkeys and humans.

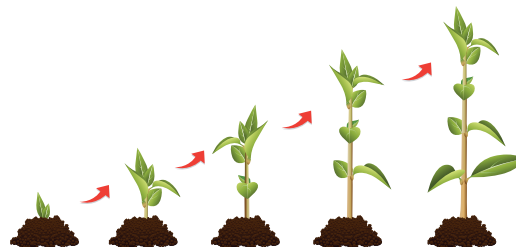
Most plants produce seeds. The seeds, when sown, under suitable conditions, **germinate** and grow to become new plants.



This is a turtle laying eggs. A baby turtle (called hatchling) hatches out of an egg.



This is a mother with her baby.



Most plants grow from seeds.

Have you ever seen your football, bicycle, laptop or pen producing more of their own kind? No. This is because non-living things do not reproduce.

Quick Check 2

Fill in the blanks.

1. **Bird** is a **living thing**, but **rock** is a
2. Just as a breathes through **nose**, a **grasshopper** breathes through **spiracles**.
3. **Snake** crawls by moving its **whole body**. **Fish** moves using its and
4. **Puppies** grow into **dogs**. grow into **cats**.

KEY TERMS

Spiracles: Tiny air holes present on the bodies of insects that help them to breathe

Stomata: Pores on the leaves of plants through which they take in and give out air

Reproduction: Ability of living things to give birth to their own kind

QUICK NOTES

- * Living things need air, food and water. They breathe, move, grow, feel and produce their own kind.
- * Non-living things do not need air, food and water. They do not breathe, move, grow, feel and produce their own kind.
- * All living things are natural things while non-living things can be natural or human-made.

RUN-THROUGH

I. Very Short Answer Questions

A. Tick (✓) the correct answer. *One is done for you.*

1. Which of the following is a natural thing?
a. Pen ☐ b. Mobile phone ☐ c. Brush ☐ d. Moon ☒
2. Which animal moves using its whole body?
a. Deer ☐ b. Fish ☐ c. Snake ☐ d. Lion ☐
3. Grasshopper breathes through
a. lungs ☐ b. spiracles ☐ c. nose ☐ d. gills ☐

4. Which of the following does **not** give birth directly to young ones?
 a. Dog ☐ b. Monkey ☐ c. Cat ☐ d. Turtle ☐
5. Which of the following is **not** a living thing?
 a. Car ☐ b. Bird ☐ c. Turtle ☐ d. Tiger ☐

B. Match the following.

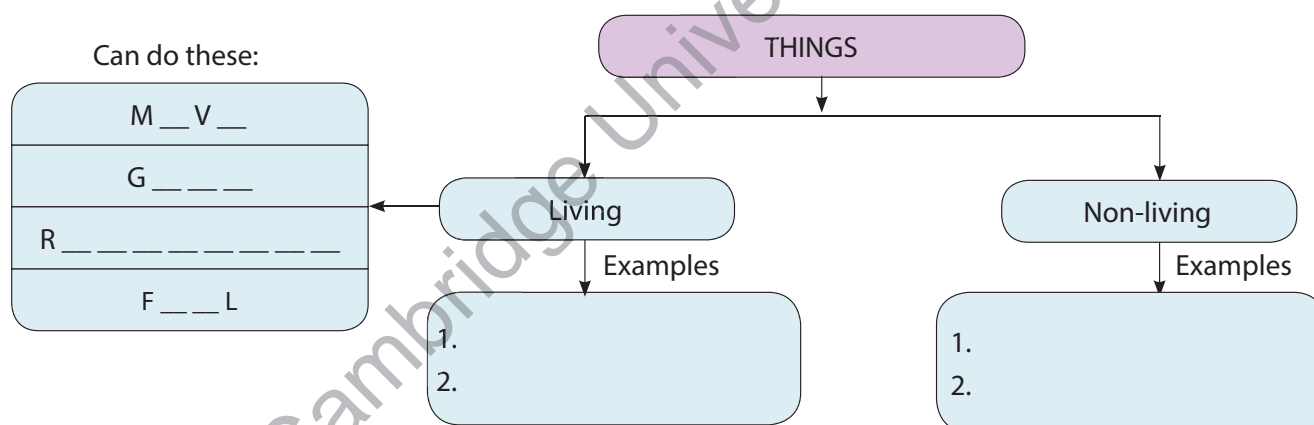
Column A
1. Table
2. Tongue
3. Humans
4. Fish
5. Rainbow

Column B
a. Sense organ
b. Natural non-living thing
c. Stomata
d. Breathe through gills
e. Breathe through nose
f. Man-made thing

C. Name the organs of breathing for the following.

1. Fish 2. Insects 3. Plants 4. Humans

D. Complete the concept map.



II. Short Answer Questions

- What are natural things? Subject Connect
- Write 'L' for the features of living things. Write 'NL' for the features of non-living things.
 - A snake crawling on the ground ☐
 - A teacher teaching in the class ☐
 - A kite flying high in the sky ☐
 - A moving fan ☐
- List and count the number of **living/non-living things** and **natural/man-made things** in your classroom. Life Connect
- Touch-me-not or *Mimosa* plant cannot move from one place to another. Is it a living thing or a non-living thing? Why?
- Name four animals that lay eggs.

6. Distinguish between the following.
 - a. Plant and Animal
 - b. Nose and Stomata
 - c. Turtle and Horse

III. Long Answer Questions

1. 'Living things feel'. Explain with examples.
2. How does growth take place in living things? Explain.
3. What is reproduction? Give examples.
4. Why do living things need food?
5. Complete the differences between living and non-living things.

	Living Things	Non-living Things
i.	Living things need food, air and water to live and grow.	
ii.		They do not breathe.
iii.		They cannot move from one place to another on their own.
iv.	They can feel.	
v.		They do not grow.
vi.	They reproduce.	

IV. Challenge

1. A car moves when we start the engine. Is car a living thing or a non-living thing? Give reasons.
2. Amit sowed a seed in the right amount of soil. He watered it weekly. But, he kept the plant inside his room that did not have a window. Do you think the plant will grow? Explain.
3. Which characteristic feature is shown by both living and non-living things—**growth/reproduction/weight**?

Life Connect

V. Enrichment

- A. **Field Visit:** Visit a zoo or a park. Note down 10 different things you see. Now, group these things under **Living** and **Non-living things** in your Science notebook.

Life Connect



SCIENTIFIC QUEST

Let us perform a simple activity to find out how leaves breathe. Take a freshly fallen leaf. Keep that leaf dipped in a glass or plastic bowl of water. Keep this bowl at a place where sunlight reaches. Notice the leaf after about 3–4 hours. Do you see the formation of air bubbles? What do you conclude from this activity?

Life Connect

ENJOY SCIENCE

1. Draw and colour any one living and non-living thing on a sheet of paper.
2. Read the clues. Guess the name of living or non-living thing. Search their names in the word grid. *One is done for you.*

Life Connect

- a. I use my **whiskers** to feel the movements around me. (↓) **CAT**
- b. Humans love me as a pet. I am well-known for my sniffing capabilities. (↓)
- c. I am made of seven colours. I am found in the sky generally after rain. (→)
- d. I cannot move on my own. But, I can grow very tall. (↘)
- e. I taste with the help of my special body part called antennae. I love to sit on flowers. (↑)
- f. I have a good eyesight and can see my prey from a great distance. I am a bird. (←)
- g. You should drink at least 8 glasses of me daily. (↘)

Y	F	G	S	H	T	S	Y
L	W	C	U	T	O	D	H
F	R	A	I	N	B	O	W
R	R	T	D	T	R	G	T
E	Y	H	W	T	R	T	U
T	I	F	T	A	H	E	J
T	L	U	F	J	T	F	E
U	G	E	L	G	A	E	H
B	X	W	L	Y	U	O	R

PICTURE SURVEY

Name the type of movement shown by the following animals. *One is done for you.*

Subject Connect



Crawl



1. Name two more animals that can swim.

.....



2. Name two more animals that can hop.

.....





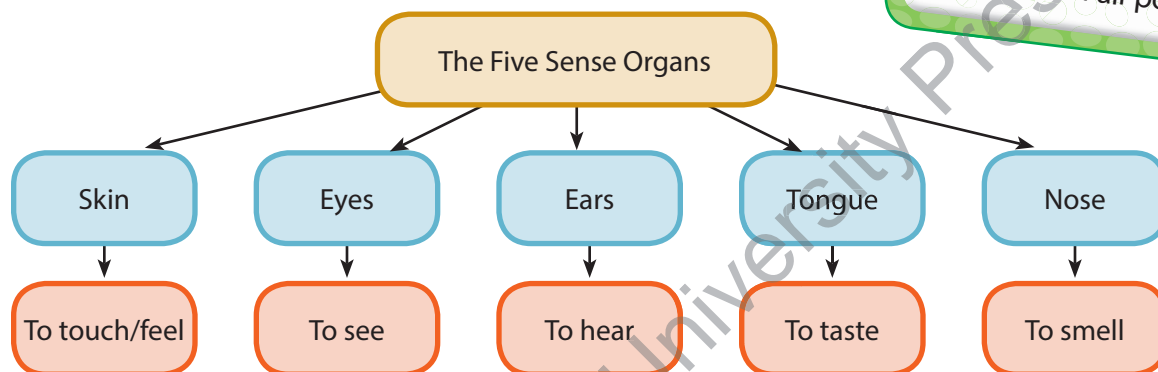
Chapter 2

Human Body

LET'S BEGIN

Chapter Objectives

- ◆ Know about the human body: internal organs, respiratory system and deep breathing
- ◆ Learn about the causes and effects of air pollution



Name any three things which you can:

touch/feel	see	hear	taste	smell

Answer the following:

I like the touch of

I love the sight of

I do not like to hear

I like the taste of

I love the smell of

Describe the activities that you perform using your sense organs at school.

Our body is an amazing machine. It can perform various functions. It tells us about our surroundings and helps us respond. It can also **repair** itself. We must look after our body.

We see and understand the world around us by using our five sense organs—eyes, ears, nose, tongue and skin. Apart from the sense organs, there are various other organs in our body. Together, these organs form organ systems. While our sense organs help us to know about our surroundings, the organ systems carry out different functions.

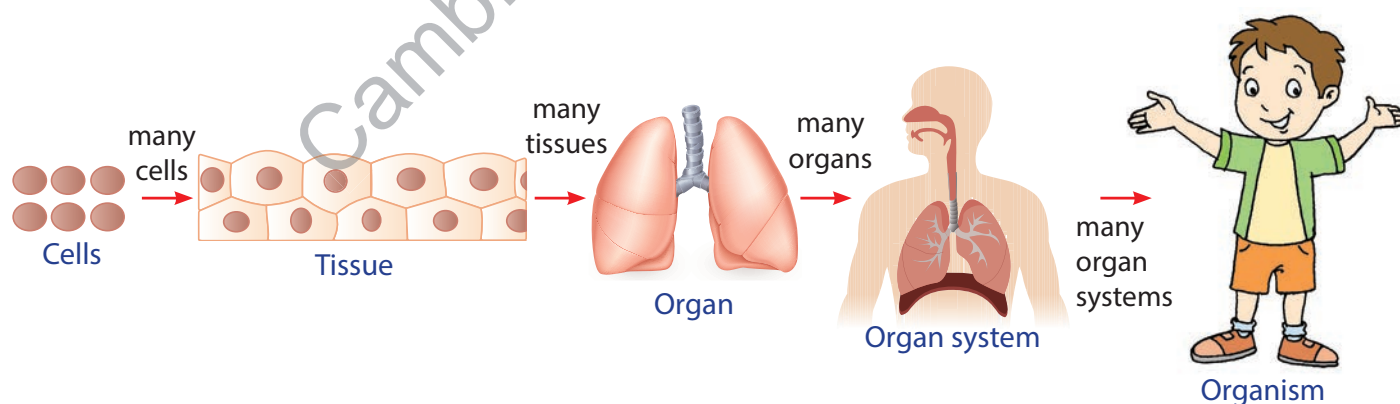
But what are these organ systems made up of?

All the organs in our body are made up of small building blocks. Each building block is called a **cell**. A cell is the smallest unit of our body.

Similar cells join together to form **tissues**. Tissues join to form an **organ**. A group of organs that work together to do a particular work, forms an **organ system**. Different organ systems work together to make it possible for the human body to walk, play, learn, watch, grow and do many other activities. All these organ systems together form an **organism**.

INFO HUB

There are millions of cells in our body. Cells can be of different types, depending on the type of organ they form.



The respiratory system, skeletal system, muscular system, digestive system, circulatory system and excretory system are some examples of organ systems in the human body.

INTERNAL ORGANS

Let us learn about some of the easily recognisable internal organs in our body along with their functions.

Feel your head with your hand. Is it hard or soft?

Now, feel your cheek with your hand. Is it hard or soft?

The hard part (the head) that you felt is the bone. The soft part (cheek) is the muscle. **Bones** are hard, while **muscles** are soft.

Our body is made up of bones and muscles. They are covered by the skin.

Bones

The human body has a total of 206 bones. They form a **framework** called the **skeleton**. The skeleton gives shape and support to our body. Without a skeleton, we would not be able to stand straight or walk. The skeleton also protects the soft, inner parts of our body. For example, the **skull** covers and protects the brain, which is soft. **Ribs** protect the heart and the lungs.

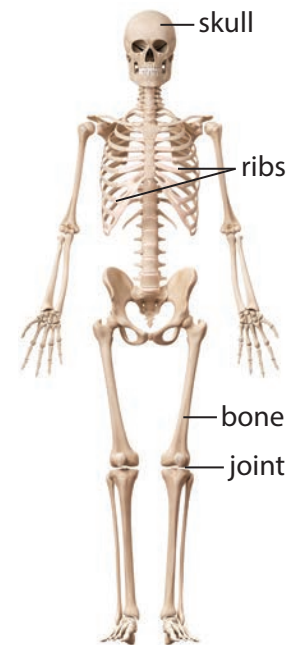
The place where two or more bones meet is called a **joint**. Joints are the only parts of the body where we can bend. There are about 360 joints in our body.

A newborn baby has about 300 bones. Then, how does an adult have 206 bones? Think!

Muscles

Muscles help the bones to move. There are more than 600 muscles in our body.

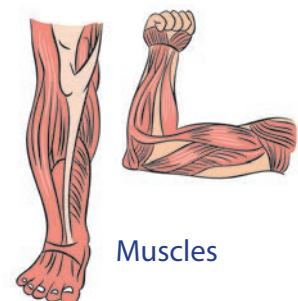
Some muscles are big while others are small. The muscles in our legs and arms are big. The muscles in our eyes are small.



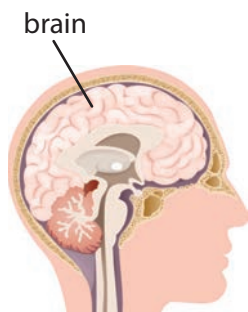
The human skeleton

INFO HUB

Earthworms have no bones at all!



Muscles

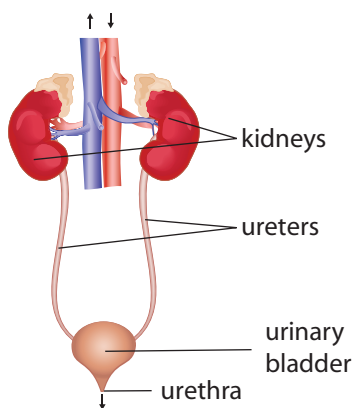
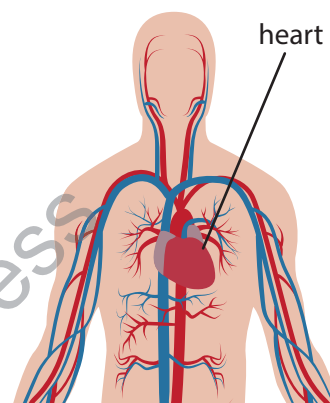


Brain

The brain is located inside the head. It is protected by the skull. The brain helps us to think. It **gathers** all the information from our surroundings and decides the response. It sends and receives messages to and from the different parts of the body, and gives them instructions.

Heart

The heart is a **hollow** and muscular organ. It pumps blood through tiny tubes called the **blood vessels** to the different parts of our body. The heart is mostly located on the left side of the chest cavity.



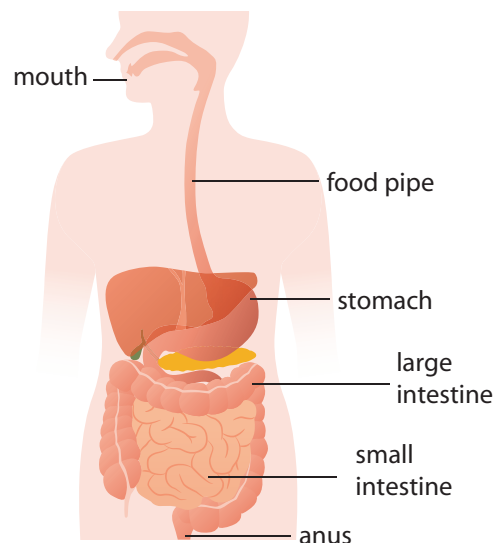
Kidneys

We have two **kidneys**. The kidneys clean the waste off the blood and produce **urine**. The **ureters** carry the urine from the kidneys to the **bladder**. This urine is stored in the urinary bladder before being passed out.



Stomach and Intestine

We chew the food in our **mouth**. Food travels down to the pear-shaped bag called the **stomach**, through the **food pipe**. In the stomach, the food is **churned** properly and mixes with digestive juices. The food is then transferred to the **small intestine**. The food is further digested by juices. Here, the nutrients in the food are absorbed by the blood. The undigested food goes to the **large intestine**. Here, extra water present in the food is absorbed. The undigested food is sent out through the **anus** in the form of stool and faeces.



INFO HUB

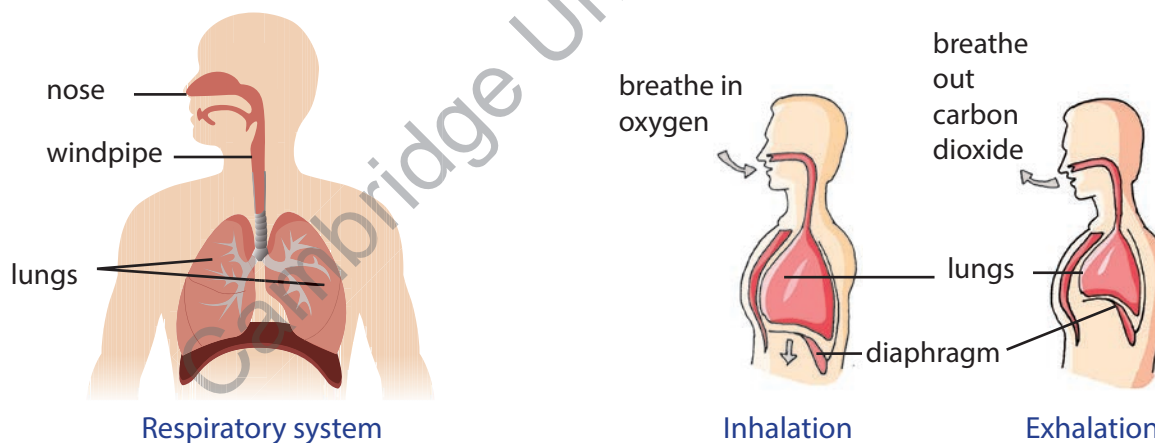
The food that we eat provides us energy. But, before providing energy, it needs to further break down and get absorbed by the body. This is known as **digestion** of food. The organs that help the food to break down, form the **digestive system**.

RESPIRATORY SYSTEM

We breathe in air to live. We take in air through our **nose**. The air then travels down the **windpipe** into the **lungs**. After the air reaches the lungs, we need to breathe out.

The nose, windpipe and lungs together form the **respiratory system**.

The air that we take in is oxygen, and is known as **inhaled air**. The air that we breathe out is rich in carbon dioxide, and is known as **exhaled air**. The process of taking in oxygen and giving out carbon dioxide is called **breathing**. Breathing in is called **inhalation**. Breathing out is called **exhalation**.



The lungs are two sponge-like, cone-shaped structures that fill most of the chest cavity. Their essential function is to provide oxygen from inhaled air to the bloodstream and to exhale carbon dioxide. Below the lungs is a muscle called **diaphragm**. During inhalation, the diaphragm contracts and moves downwards, while during exhalation it moves upwards. This movement changes the size of chest cavity.

FIND OUT HOW LUNGS WORK

ACTION TIME

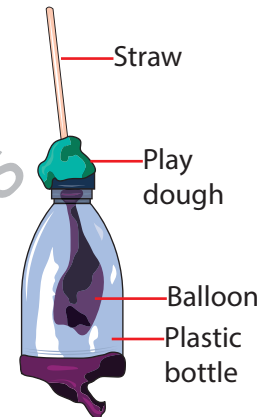
1

Aim: To make a working model of human respiratory system

Materials Required: a straw, play dough, scissors, balloons, a plastic bottle, an elastic band

Procedure: (Do this activity in the presence of an elder.)

- 1 Cut the bottom of the bottle with the scissors.
- 2 Tie a knot in one end of a balloon and **snip off** the fat end.
- 3 Stretch this end of the balloon around the bottom of your plastic bottle.
- 4 Put a straw in the neck of the other balloon and fasten tightly with the elastic band. The straw should not get crushed. The air must flow through. So, test it by blowing air into the straw to see if the balloon inflates.
- 5 Now, put the straw and the balloon into the neck of the bottle and fix with the play dough to seal around the bottle. Take care that the straw does not get crushed.



Observation: Hold the bottle. Pull the knot of the balloon. What happens?

.....

.....

.....

.....

.....

You will find that the balloon inside the bottle inflates. And when you release the knot of the balloon, it deflates.

Conclusion: When the knotted balloon is pulled, space is created inside the bottle. This lets the air enter the bottle through the straw and fills the balloon. When the knot is released, there will be no space left. So, the air from the balloon is thrown out, and the balloon deflates.

Quick Check 1

Fill in the blanks.

1. **Stomach** is to **food** as is to **urine**.
2. is to **blood** as **lungs** is to **air**.
3. **Bones** is to **hard** as **muscles** is to
4. **206** is to as **600** is to **muscles**.
5. is to **think** as **stomach** is to **digestion**.

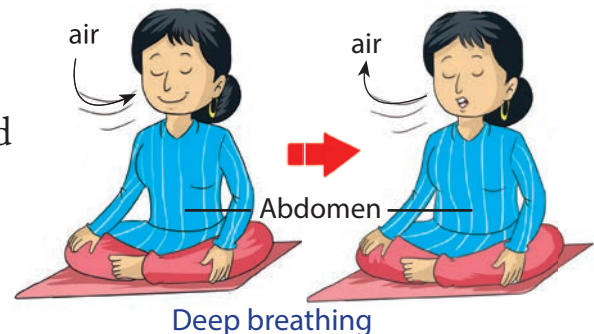
DEEP BREATHING

Deep breathing is a simple breathing exercise that helps in full exchange of gases. It is done by contracting the diaphragm. In this type of breathing, the air enters the lungs and the belly expands.

Life Connect

Subject Connect

Process: **Focus** on your breath. Inhale through your nose for about 3 to 4 seconds. While you do this, push out your abdomen. The belly will expand and the lungs will expand completely. Hold your breath for 3 to 4 seconds. Then exhale for about 3 to 4 seconds through your mouth. The lungs will contract completely when the air is exhaled.



AIR POLLUTION

We are all aware that we need food, water and air to survive. We can survive without food, but we cannot live without air for even a few minutes. This simple fact tells us how important clean air is to us. Let us understand what is **air pollution** and what are its causes.

Air pollution occurs when unwanted and harmful gases, dust particles, fumes or **odour** are introduced into the atmosphere in a way that makes it harmful to humans, animals and plants.

INFO HUB

Atmosphere is the blanket of air surrounding the Earth that extends upto 1000 km.

Causes of Air Pollution

Air pollution is caused as a result of different human activities.

- ◆ Factories and industries release smoke and other harmful gases.
- ◆ Smoke released from burning of garbage and bursting crackers.
- ◆ Fumes from car exhausts contain **dangerous** gases.

Effects of Air Pollution

- ◆ Air pollution can make people sick.
- ◆ It becomes difficult to breathe and causes diseases such as lung cancer, respiratory and heart diseases. It can **trigger** an asthmatic attack (a respiratory infection).
- ◆ Some types of air pollution can cause harm to the **ozone** layer present in the atmosphere.



Causes of air pollution

- "Saving environment is in our hands." Discuss in class.
- "This bus runs on CNG." What does this mean? How is it good for our surroundings? Discuss. Write a report in groups of five.



Quick Check 2

State true or false.

1. Lungs are located on the left side of the chest cavity.
2. Carbon dioxide is inhaled during breathing.
3. Diaphragm contracts during deep breathing.
4. Car exhausts cause air pollution.
5. Ozone layer is present in water.

KEY TERMS

Cells: The smallest building blocks in our body

Bones: The hard parts of our body

Muscles: The soft parts of our body that cover the bones

Skeleton: The framework of bones that gives shape and support to our body

Joint: The place where two or more bones meet

Digestion: The process by which food is converted into substances that can be absorbed into the body

Breathing: The process of taking in oxygen and giving out carbon dioxide

Inhalation: Breathing in

Exhalation: Breathing out

Air pollution: Pollution of the atmosphere as a result of different human activities

QUICK NOTES

- ★ Our body is made up of cells, tissues, organs and organ systems.
- ★ Different organ systems work together to make it possible for the human body to walk, play, learn and do other activities.
- ★ Our body is made up of bones and muscles. They are covered by the skin.
- ★ The brain is located inside the head. It is protected by the skull. The brain helps us to think.
- ★ The heart pumps blood through blood vessels to the different parts of our body.
- ★ We have two kidneys. They clean blood and produce urine. Urine is a waste product of our body.
- ★ The nose, windpipe and lungs together form the respiratory system.
- ★ Air pollution occurs when unwanted gases, dust particles, fumes or odour are introduced into the atmosphere in a way that makes it harmful to humans, animals and plants.

RUN-THROUGH

I. Very Short Answer Questions

A. Tick (✓) the correct answer.

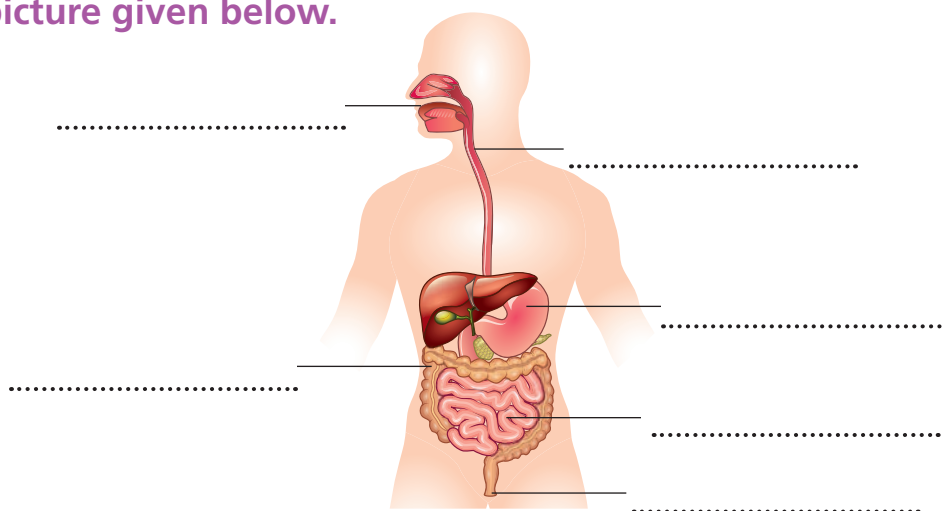
- Many similar join together to form tissues.
a. organs ☐ b. cells ☐ c. bones ☐ d. organ systems ☐
- 'Megha can see a rocket in the sky'. Which sense organ is used here?
a. Tongue ☐ b. Ears ☐ c. Skin ☐ d. Eyes ☐
- The brain is protected by
a. skull ☐ b. eyes ☐ c. hair ☐ d. ribs ☐
- How many kidneys do human beings have?
a. One ☐ b. Two ☐ c. Three ☐ d. Four ☐
- The gas we breathe in:
a. Carbon dioxide ☐ b. Nitrogen ☐ c. Oxygen ☐ d. Steam ☐

B. Match the following.

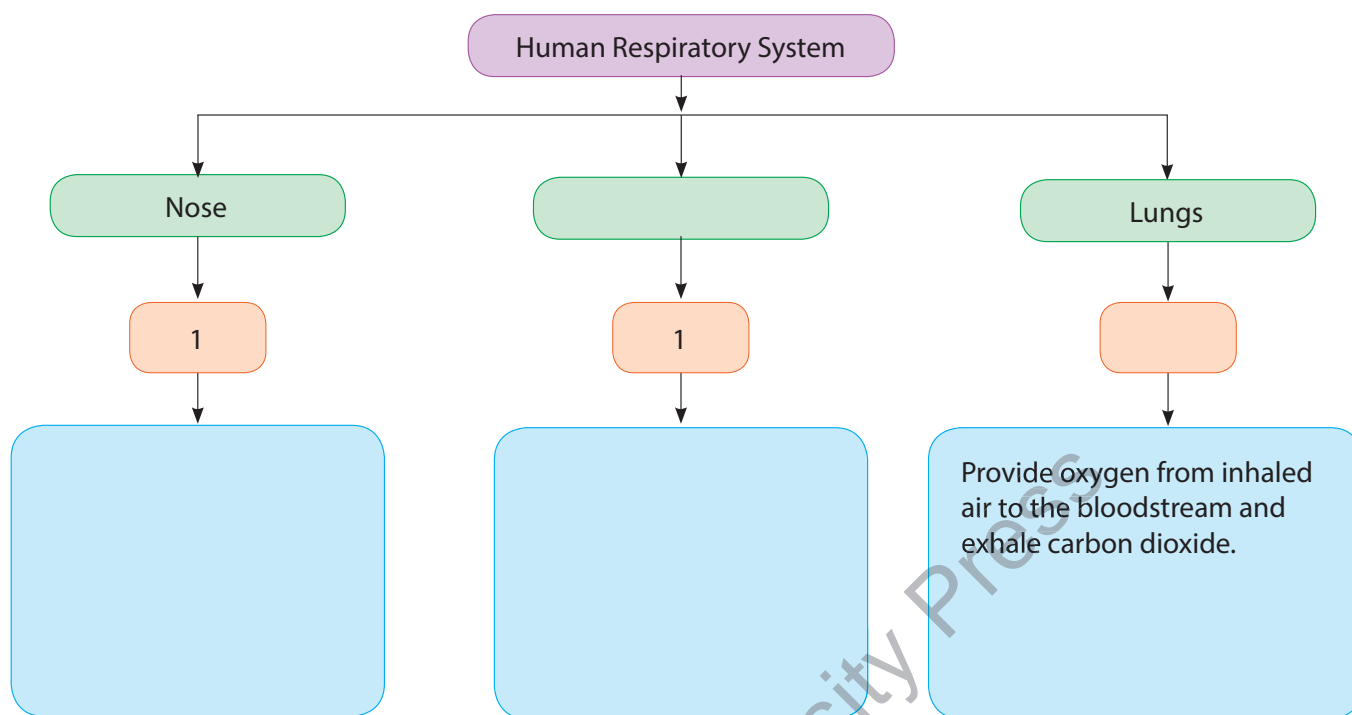
Column A
1. Stomach
2. Exhaled air
3. Ribs
4. Lungs
5. Diaphragm

Column B
a. Protect heart and lungs
b. Muscle below lungs
c. Two; For breathing
d. Fills the balloon
e. Pear-shaped
f. Carbon dioxide

C. Label the picture given below.



D. Complete the concept map.



II. Short Answer Questions

1. Name the five sense organs.
2. What is a cell?
3. How do kidneys help in removing waste from our body?
4. Unjumble and define the following terms:
 - a. MSATOCH
 - b. ERUERT
 - c. ADAIRPHGM
 - d. OESKELTN
 - e. EPDE GRBETAHIN
 - f. GDIESITON

III. Long Answer Questions

1. Draw a well-labelled diagram of human respiratory system.
2. With the help of an activity, explain how do we inhale and exhale air?
3. What is the role of stomach and intestine in digestion?
4. Distinguish between the following.
 - a. Bones and Muscles
 - b. Stomach and Kidney
 - c. Inhale and Exhale
 - d. Heart and Brain
5. List any two causes and effects of air pollution.

IV. Challenge

1. Puneet often complains of pain in legs and arms. His mother keeps scolding him for not exercising daily. Why do you think she asks him to exercise daily? Discuss.
2. Hema has a habit of burning old newspapers. The neighbours have suggested her not to do so. Instead, she can sell it to the scrap dealer. Is the suggestion correct? Discuss.



V. Enrichment

A. Van Mahotsav

Plants are very important for all living organisms. Plants help to keep the air clean. List any three more uses of plants.

.....
.....
.....

The name *Van Mahotsav* means 'Tree Festival'. In India, it is observed from July 1 to July 7 every year. It was first celebrated in the year 1950. During this week, millions of saplings are planted across India. *Van Mahotsav* makes us all aware of the importance of plants.



Life Connect

- B. **Model Making:** Make a model of any one of the following using waste materials only.

- a. Lungs
 - b. Stomach and intestine
- (This can be done as a group activity.)

Subject Connect

SCIENTIFIC QUEST

Ask your elders or search the Internet.

- What is a dog's favourite food? ^B
- What is the bone and muscle doctor called? ^O
- Can our elbow move in all directions? Why or why not?
.....

ENJOY SCIENCE

Guess the answers! Use the unjumbled words as clues.

1. **ILAEVOL** are tiny air sacs in our lungs.
2. The human heart is the same size as our **IFST**.
3. Windpipe is also called as **RTCHAAE**.
4. Tiny hair that keep mucus and dirt out of our lungs are called **IICLA**.
5. Voice box is also called **ARLNXY**.
6. As you breathe in, **IDAGMPARH** contracts and flattens to give your lungs room to fill up with air.
7. **SGOM** is formed from smoke and fog.

Life Connect

PICTURE SURVEY



- a. What does the picture show?
.....
- b. How is it harmful for us and our surroundings?
.....

Teaching Tip: Make the students take a pledge to keep the surroundings neat and clean. Also, 'Enjoy Science', is an extension activity. The questions under this section, are for enhanced learning.



Chapter 3

Animals: Birds

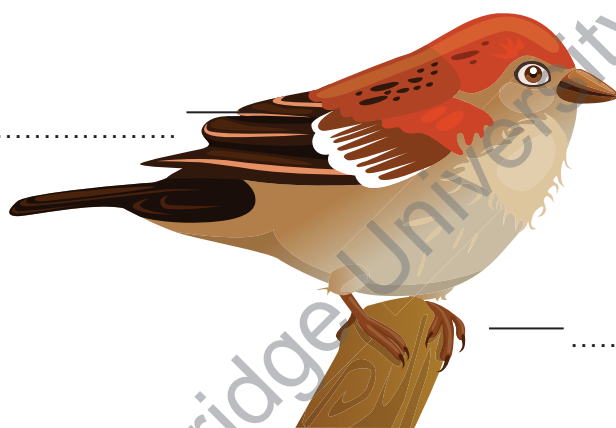
LET'S BEGIN

Identify and label the different parts of a bird that help it to:

- a. Fly b. Eat c. Sit on a branch

Chapter Objectives

- ◆ Know about types of beaks, feet and claws of birds
- ◆ Learn how birds fly
- ◆ Know about feathers of birds and their nesting habits
- ◆ Learn about bird bath and how to care for animals



Birds are feathered animals that live on trees. We can see them flying in the sky. They can walk, hop, run and fly. Birds have different body types and features. They eat different types of food. Some birds eat plant parts such as seeds, grains and fruits, while others eat flesh. Birds use their claws and beaks to catch, hold and eat their food.

Let us study about them in detail.

INFO HUB

Animals that live on trees are called **arboreal animals**.

BEAKS OF BIRDS

Birds are toothless animals. They have beaks to eat their food. The shape of a bird's beak is suited to the type of food it eats.

Strong, Sharp and Hooked Beak

Birds like eagles, hawks, kites and vultures are known as **flesh-eating birds**. They have strong, sharp and hooked beaks to help them tear the flesh of other small animals. They are known as **birds of prey**.



a. Eagle



b. Vulture

Strong, sharp and hooked beaks

INFO HUB

- A beak is also called 'bill' or 'rostrum'.
- The animal that is hunted is called a **prey**.

Strong, Short and Hard Beak

Birds like pigeons, finches, peacocks and sparrows eat grains and seeds. They have short, strong and hard beaks to crack open grains and seeds.



a. Pigeon



b. Sparrow

Strong, short and hard beaks

Curved Beak

Birds such as parrots and parakeets eat nuts and other hard fruits like walnuts. They have hooked beaks to help them crack open their food. Their curved beak also helps them to climb trees.



a. Parrot



b. Parakeet

Curved beaks

Strong, Pointed, Chisel-shaped Beak

Birds like woodpeckers have sharp, long and pointed chisel-shaped beaks. They use their beaks to **poke** holes into the hard trunk of trees and pull out insects to eat.

What is a chisel? Name the person who uses this tool to make furniture.

.....

.....



Woodpecker

Strong, pointed, chisel-shaped beak

Life Connect

Poke: Push with something pointed

Long and Pointed Beaks

Birds like hummingbirds and sunbirds also have long, **slender** and pointed beaks to suck nectar from flowers. They **pierce** open the flowers to suck nectar from them.



a. Hummingbird



b. Sunbird

Long and pointed beaks

What will happen if a hummingbird had hooked beak?

Broad and Flat Beak

Water birds like ducks and geese have broad and flat beaks with holes on its sides. These birds take in the muddy water through their beaks. Along with the muddy water, insects, worms and some water plants are also taken in. The muddy water flows out through the holes while insects, worms and plants are **retained** inside the beak.



a. Duck



b. Goose

Broad and flat beaks

Broad and Short Beak

Birds like swallows have broad and short beaks, which are sticky inside. While flying, these birds keep their mouth open. Tiny insects get stuck inside the mouth and the bird swallows them up.



Swallow bird

Broad and short beak

INFO HUB

A **spoonbill** has a spoon-shaped beak. It is used to collect **tadpoles** and other small water animals.



FEET AND CLAWS

Feet and claws help the birds to walk, hop, run, hold on to branches, protect themselves from their enemies and catch their food. Different birds have different types of feet and claws.

Flesh-eating Birds

Flesh-eating birds like eagles and vultures have very sharp claws known as **talons**. They use these talons to tear the flesh or to catch live prey like rats, toads and small birds.



Eagle and its claws

Perching Birds

Perching birds like sparrows, mynahs, crows and finches have three front toes and one toe at the back. The claws in the toes help them to hold on (grip) to branches or wires.



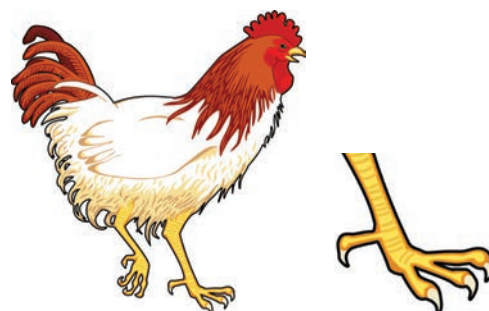
Crow and its claws

INFO HUB

Perching birds can sleep while holding on to branches.

Scratching Birds

Birds like hens and roosters have very sharp claws that help them to scratch and dig into the ground, and bring out buried insects, worms and seeds.



Hen and its claws

Climbing Birds

Birds like woodpeckers and parakeets are climbing birds. They have two front toes and two back toes. The front toes point upwards while the back toes point downwards. These help them to climb and cling on to trunks of trees.



Woodpecker and its claws

Swimming Birds

Water birds such as ducks and swans have webbed feet that help them to swim in water. The three front toes are joined by skin, forming a **web**. This web helps them to push water back while swimming.



Duck and its webbed feet

An oar is a tool which is used to move a boat in water. What is the similarity between an oar and the feet of a duck? Discuss.

Wading Birds

Birds like cranes, herons and storks have long legs along with spread out toes. These birds can **wade** through muddy water without getting **drenched** in water.



Heron and its claws

HOW BIRDS FLY?

The body of a bird is designed in such a way that it can fly easily. It is shaped like a boat. The pointed head and beak help the bird to cut through the air. This is referred to as a **streamlined** body, which makes it easy for the bird to fly. A bird has wings that help it to fly. The wings are attached to the body by very strong muscles.

In order to fly, birds move their wings in two types of movements: upward stroke and downward stroke. The upward and backward movement of wings is called **upstroke**. The downward and forward movement of wings is called **downstroke**. The tail of a bird helps it to change directions while flying.

INFO HUB

Birds have hollow bones. This makes their body very light, and allows them to fly for a long period of time without getting tired.



A bird in flight

Quick Check 1

State true and false.

1. Birds are toothless.
2. The backward movement of wings is called downstroke.
3. A duck has holes on the sides of its beak.
4. The sharp claws of flesh-eating birds are known as talons.
5. Herons have very short legs.
6. A bird has a very heavy body.

FEATHERS OF A BIRD

Wings of a bird are covered with feathers. Feathers are an important part of a bird's body. Feathers are soft and fluffy and keep the birds warm. Birds have three types of feathers—body, flight and down feathers.

Body feathers: They cover the exterior of a bird's body. These feathers often have bright colour patterns. Body feathers give shape to the bird's body.



Body feather



Flight feather

Flight feathers: These feathers are large in size. These are found in wings and tail. Flight feathers are used for flapping, providing balance and help in changing the direction during flight.

Down feathers: These are small, soft and fluffy feathers that are found to be present under body feathers. They help to keep birds warm. A newborn bird has a lot of down feathers.



Down feather

Why do birds fly? Have a class discussion.

Teaching Tip: A fancy dress show can be held in class showing birds' feathers and beaks, and how they fly by the movement of wings.

NESTING HABITS OF BIRDS

Unlike human beings who give birth to babies, birds lay eggs. Many birds build their homes called **nests**. Birds build nests to lay eggs. The nests are built in safer places. Usually, while one parent sits on them to keep the eggs warm and hatch them, the other parent protects the eggs from enemies, such as snakes. After a set number of days, the egg shell breaks open and a baby bird comes out. This process is known as **hatching**. The parents feed the baby birds until they are strong enough to fly.

Wow! Just like our parents have got a house to keep us safe, birds create nests to keep their eggs and babies safe.

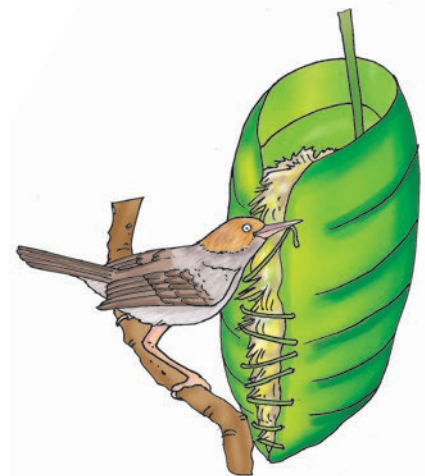


How Birds Build Nests

Birds collect things like twigs, leaves, wool, cotton, straws, thread, pieces of cloth, paper, and so on. They use these things to build their nests in places like trees, terraces of the buildings and **cavities** of the walls.

Let us take a look at the nests of some of the birds.

The **tailor bird** uses its beak as a needle to sew leaves with materials like wool and thread. This is the reason why it is called tailor bird. It also uses cotton, wool and dry leaves to make its nest warm and cosy.



A tailor bird and its nest

Find out the names of any two birds that make untidy nests.

The **weaver bird** uses twigs and grass to make a very beautiful and strong nest. The nest hangs from the tree and is made by weaving the grass in and out. The nest has a tunnel-like opening at the bottom of the nest, which is used by the bird for entering into the nest.



A weaver bird and its nest



A swallow bird and its nest

The **woodpecker** builds its nest inside the trunk of a tree. It uses its beak to create a hole inside the tree.



A woodpecker and its nest



A penguin and its nest

A **penguin** lives on ice. It collects pebbles and small stones to make its nest on the ground.

INFO HUB

The study of birds is known as **ornithology**. Salim Ali was a famous Indian ornithologist.

Quick Check 2

Unscramble the words to fill in the blanks.

1. feathers are the feathers of wing and tail. (I H F G T L)
2. Birds build to lay eggs. (T E N S S)
3. The bird uses its beak as a needle to sew leaves with materials like wool and thread. (I A T R O L)
4. The bird uses its own spit to make its nest. (W L L S A O W)
5. Birds build nests to lay (G S E G)

SOME INTERESTING FACTS ABOUT BIRDS

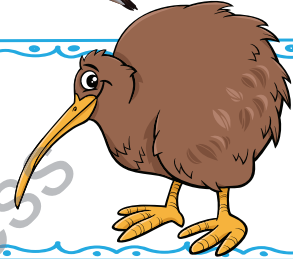
The earliest known bird was as an **Archaeopteryx**. Its body was covered with feathers.



- The **ostrich** is the largest living bird.
- The **hummingbird** is the smallest bird.



Kiwi is the only wingless bird found on the Earth. They lay large eggs as compared to their body size. These birds are almost sightless, so they hunt by using the sense of smell.



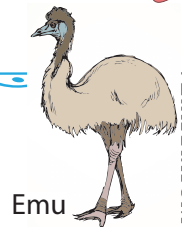
Mockingbirds have the ability to mock or mimic songs of other birds. They can copy many sounds.

Parrot is a very common example of a talking bird. It can even copy the spoken language of humans.

- The **smallest egg** laid by any bird is that of **hummingbird**.
- The **largest egg** laid by any bird is that of **ostrich**.



Some birds like **penguin**, **ostrich** and **emu** cannot fly. The **penguin** is the only bird that can swim, but cannot fly. It is the only bird that can walk upright.



Owls can turn their heads almost in a complete circle, but cannot move their eyes.



Goose was the first bird domesticated by human beings.



Some birds do not lay eggs in their own nests or raise their own chicks. **Cuckoo** is a very common example.



Subject Connect

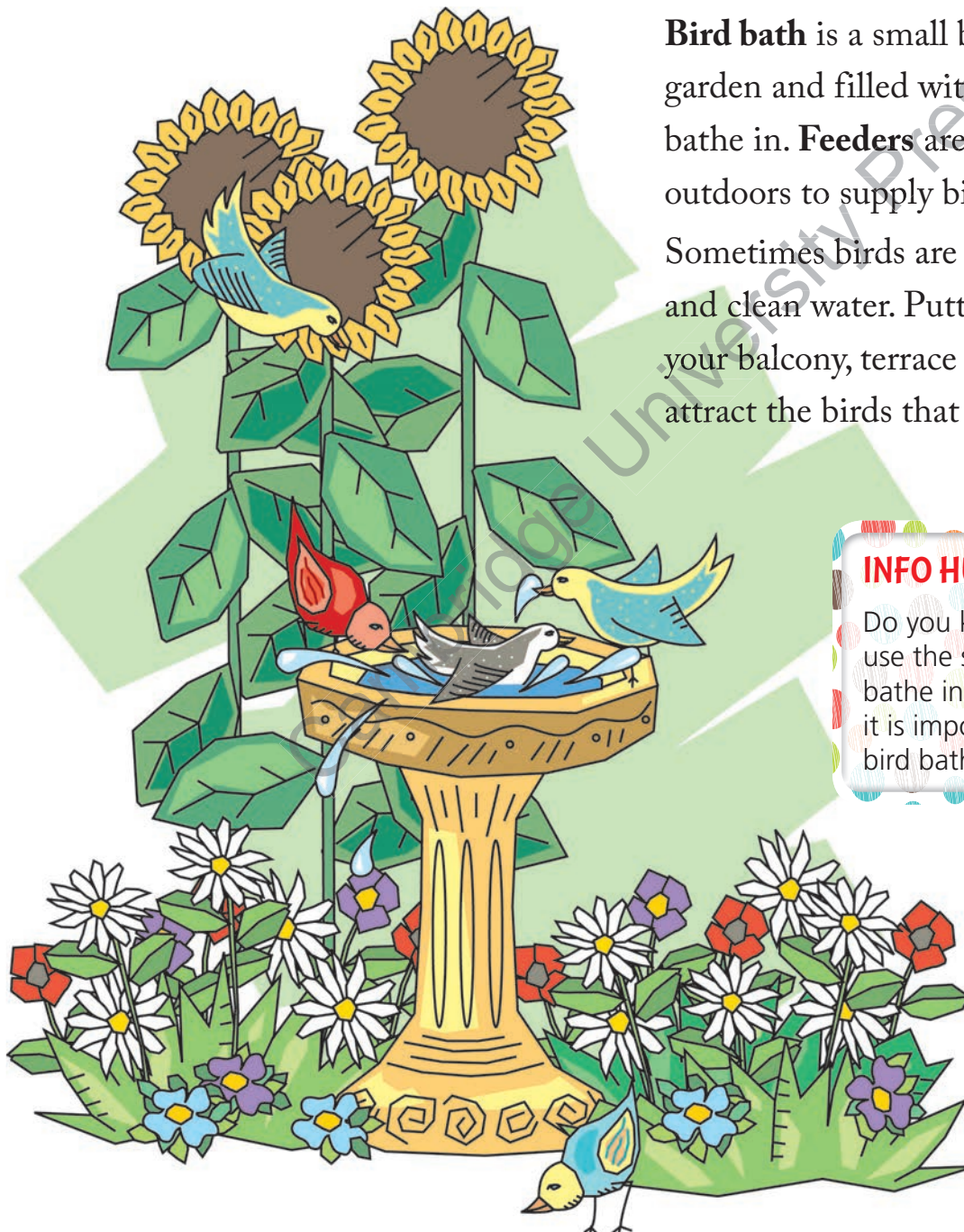
INFO HUB

The common saying 'eat like a bird' means 'to eat very little'.

- Some birds are even kept as pets. Give two examples.
- In olden days, a particular bird used to carry messages and letters from one place to another. Can you name this bird?
- What is the home of a bird called?

Life Connect

BIRD BATH AND CARE FOR ANIMALS



Bird bath is a small basin placed in a garden and filled with water for birds to bathe in. **Feeders** are trays that are put outdoors to supply bird food to birds. Sometimes birds are unable to find fresh and clean water. Putting a bird bath in your balcony, terrace or yard may even attract the birds that do not eat seeds.

INFO HUB

Do you know that the birds use the same water they bathe in, to drink as well? So, it is important to clean the bird bath regularly.

Animals are a wonderful part of our lives. They can bring us joy, make us laugh and can even be our good friends. We should show respect to animals by taking good care of them. They also need food, water and a good environment.

Taking Care of Pets

- ◆ Feed the pet at regular intervals.
- ◆ The area in the house where the pet sleeps or feeds and its dishes should be cleaned regularly.
- ◆ Clean up the pet droppings.
- ◆ Give regular bath to your pet.
- ◆ Take the pet for regular check-ups to an animal doctor, also called a **veterinary doctor** or **vet**.
- ◆ Never be cruel to any animal, whether pet or wild. Do not hit them.

Quick Check 3

Tick (✓) the right action. Cross (X) out the wrong action.



KEY TERMS

Talons: Sharp, curved claws of flesh-eating birds

Perching: Sitting of birds on trees, branches and wires by gripping their feet

Streamlined: Narrow at the two ends and broad in the middle

Upstroke: The upward and backward movement of birds' wings

Downstroke: The downward and forward movement of birds' wings

Hatching: A process that causes an egg to break so that the baby animal can come out

QUICK NOTES

- * Birds are toothless, feathered animals. They have different feeding habits. They have beaks and claws to catch, hold and eat food.
- * The type of beak of a bird depends upon its eating habit.
- * Birds have special body features that help them fly.
- * Birds build nests to lay eggs.
- * Birds have a streamlined body, wings, hollow bones and strong muscles.

RUN-THROUGH

I. Very Short Answer Questions

A. Tick (✓) the correct answer.

1. Birds have beaks that help them to
 a. eat their food ☐ b. hear ☐ c. hop ☐ d. swim ☐
2. A has a strong, short and hard beak.
 a. pigeon ☐ b. vulture ☐ c. duck ☐ d. swallow ☐
3. Woodpecker has a beak.
 a. broad and flat ☐ b. hooked ☐
 c. long and pointed ☐ d. none of these ☐
4. A/An has webbed feet.
 a. eagle ☐ b. hummingbird ☐
 c. parakeet ☐ d. duck ☐

B. Give an example of a bird that:

1. has a very strong, sharp and hooked beak, that helps it to tear the flesh.
2. has short, strong and hard beak to crack open nuts and food grains.
3. lives in ice and makes its nest using pebbles and stones.
4. has very sharp claws that help it to dig into the ground and bring out buried seeds and insects.
5. weaves the leaves in and out to make its nest.

C. Match the birds with the function of their claws/feet.

Column A
1. Sharp claws known as talons
2. Claws help them to hold on to branches
3. Claws help them to climb trees and cling onto the branch of a tree
4. Feet help them to push water back while swimming
5. Claws help them to dig into the ground and bring out insects and seeds

Column B
a. Climbing birds
b. Flesh-eating birds
c. Perching birds
d. Swimming birds
e. Nut-eating birds
f. Scratching birds

D. Circle the odd one out.

1. Hawk, Sparrow, Vulture
2. Crow, Heron, Stork
3. Parrot, Hen, Rooster
4. Tailor bird, Weaver bird, Penguin
5. Duck, Peacock, Pigeon

E. Unscramble and define the following words. Also, give two examples of each.

1. ATLSON
2. ENST
3. BWEBDE FTEE
4. ABEK
5. HEPRCNIG SIBRD
6. AWDNIG IBRSD

II. Short Answer Questions

1. Why do eagles have strong, sharp and hooked beaks?
2. Why do ducks have holes on the sides of its beaks?
3. Name two wading birds.
4. What are flight feathers?
5. Why does a newborn bird have a lot of down feathers?



6. Differentiate between the following.
- Upstroke and Downstroke
 - Bird bath and Bird feeder
 - Strong, chisel-shaped beak and Long, pointed beak

III. Long Answer Questions

- Write a short note on birds having broad and flat beaks.
- How do birds fly? Explain briefly.
- Explain nesting habits in birds. Give suitable examples.
- Why is a tailor bird named so? How does it make its nest?
- List any five facts about birds.

IV. Challenge

- Naveen and Sumant are divers. Scuba divers are people who wear a special suit and swim deep inside the ocean waters. Can you guess why they wear webbed footwear?
- What will happen if a woodpecker has two front toes and only one back toe?
- Name one body part which is common between an aeroplane and a bird, that helps them to fly.
- Name the following birds.
 - It loves to **soar** high in the sky. It likes to eat rats. It has a sharp eyesight.
 - It can turn its head all round. It sleeps during the day and hunts at night.



V. Enrichment

- A. Project Work:** Birds' nests can also be sorted on the basis of the following types: scrape nests, burrow nests, cavity nests, cupped nests and pendant nests. With the help of your teacher and elders, collect more information and pictures from the Internet. In groups of five, make a chart on 'Types of Nests'. Give examples of birds having those types of nests.
- B. Green Tip!** You can provide environment-friendly meals by using the kitchen scraps as tasty treats for birds. Discuss in class and with elders, how you can do this.
- C. Connect to Life:** Chewing gum is unhealthy, not only for us, but also for the birds. If a chewing gum is thrown on the ground, birds might think of it as a piece of bread and try to eat it. The chewing gum gets stuck on their beak and the birds are then unable to eat or drink.

Life Connect

Soar: Rise rapidly

D. Survey and Report: Visit at least two families in your neighbourhood that keep pets. Ask them how they take care of their pets. Make a report and discuss in class the next day.

E. Case Study: Amarya has two little parrots. She named them Pichee and Nichee. The birds were kept in a cage. Two bowls were also kept in the cage—one for grains, the other for water.

Amarya went for a holiday. The birds were left with the house help. The parrots soon became unwell and had to be taken to a vet.

Now, answer the following questions.

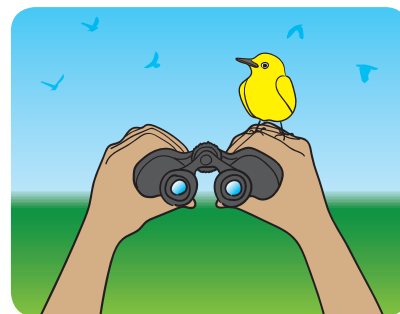
- Should birds be caged?
- Why do you think Pichee and Nichee became unwell?
- Is it wise to keep pets if you cannot take care of them? Discuss in class.

F. Find, Research and Report: Many birds fly to faraway places in search of food, shelter and to avoid unfavourable weather conditions. This seasonal movement of birds is called **migration**. With the help of your elders, find out about any three such birds and write about them in your Science notebook. Also, paste their pictures.

SCIENTIFIC QUEST

Birdwatcher!

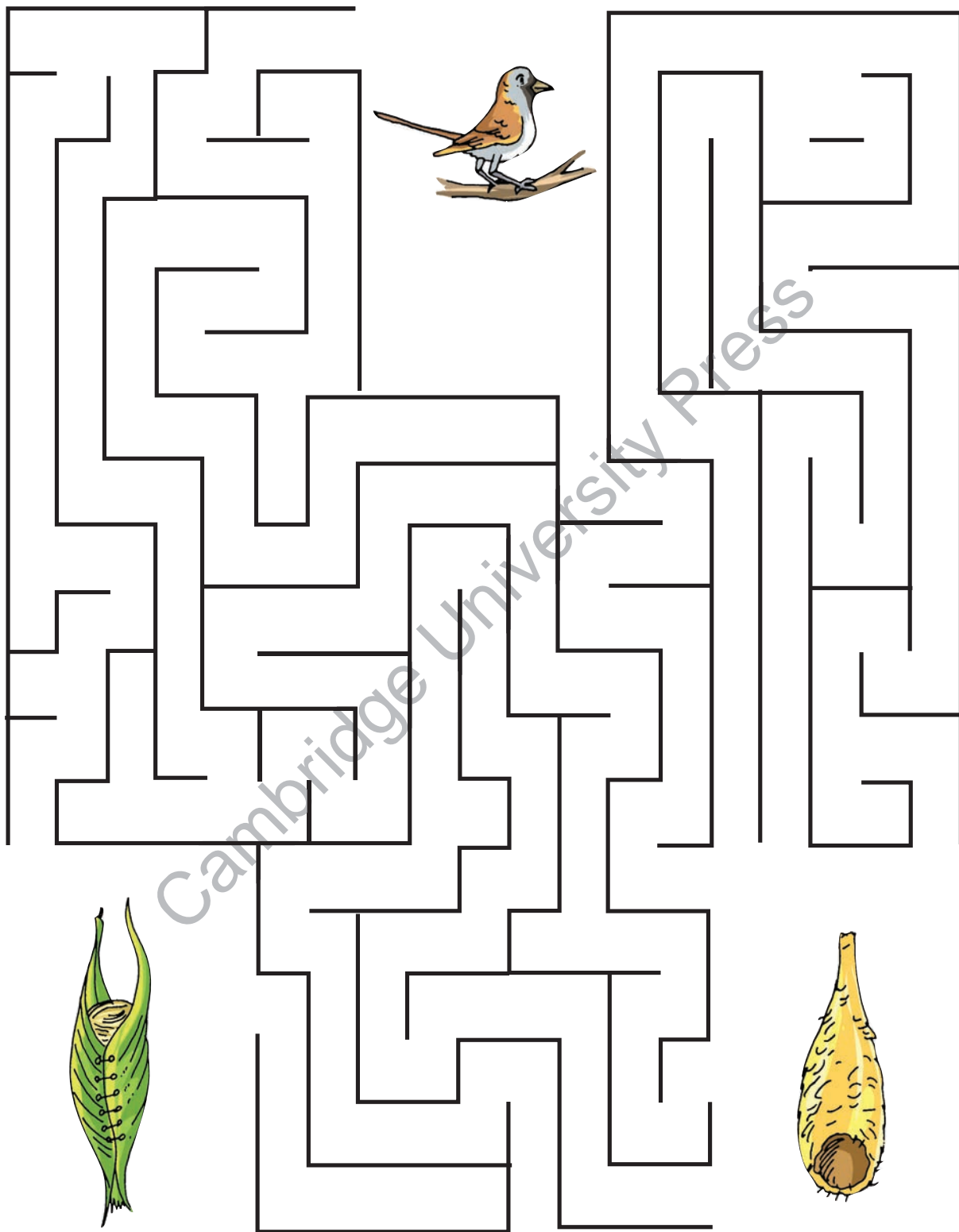
Do you know what you will be doing in this activity? You will be **birdwatching** or **birding**. A person who observes birds, studies their behaviour and other related activities is known as a **birdwatcher**. Salim Ali is a well-known birdwatcher, and is called 'The birdman of India'.



Visit a garden or a park. Take your Science observation copy or a notebook with you. Make a note of the birds in your surroundings. Collect as much interesting information as you can in the form of a table as shown here.

Name of Bird	Date/Time	Location	Shape/Type of Beak	Type of Feet	My Comments

Help the tailor bird find its way to its nest.



PICTURE SURVEY

Colour the picture given below.



Now, look at the above picture and answer the following questions.

1. What is the baby of a duck called?
2. Name the process shown above in the picture. Also, define it.
.....
3. What type of beak does this bird have?



Chapter 4

Cleanliness, Health and Hygiene

LET'S BEGIN

Say aloud the poem.

Save, save, save your surroundings,
Throw waste in the bin,
We can help save the environment if
we all pitch in.

Clean and tidy, we must be,
Untidy we must not be seen,
We can remain healthy if
we all pitch in.

Chapter Objectives

- ◆ Learn how to maintain personal cleanliness
- ◆ Understand that it is important to look after your body
- ◆ Know how to improve the surroundings
- ◆ Learn about Swachh Bharat Abhiyan



Everything around us is our **surroundings**. Roads, buildings, plants, parks and animals around us form a part of our surroundings. Soil, air and water are also a part of our surroundings.

Let us learn how we can keep ourselves and our surroundings neat and clean.

PERSONAL CLEANLINESS

Everyone likes a person who is clean and tidy. Personal cleanliness is the first step of keeping our surroundings clean. There are thousands of germs all around us. They can make us fall sick. To keep germs away, we must stay clean.

All the activities that you do to keep yourself clean and healthy is called **hygiene**. Health and hygiene go hand-in-hand. We should develop good habits to stay healthy.

Hand Washing

Hands need to be cleaned before and after meals. We should also wash our hands with soap after using the toilet and after playing.

Life Connect

Why should we wash our hands after playing with pets? Discuss in class.

HAND WASHING STEPS



Oral Hygiene



Oral hygiene means to keep our mouth and teeth clean. We should brush our teeth twice a day, once in the morning and again before going to bed at night. We should massage our gums after brushing our teeth. Rinse your mouth well every time after eating or drinking anything. Change the toothbrush every three months. Visit a dentist (tooth doctor) every six months.

Bathing

Bathing not only keeps you fresh and smelling good, but also keeps you fit and healthy. We should take bath daily. Bathe with lukewarm water in winters, instead of avoiding bathing. Bathing at the end of the day can also be a part of bedtime routine.



Hair Care

We should wash our hair regularly with a good shampoo or soap. We can oil massage our scalp at least thrice a week. This helps in getting rid of dandruff and prevents hairfall. Regular oiling improves the **texture** of hair. We should comb our hair regularly.



Clean skin is a happy skin. Discuss in class.

INFO HUB

Subject Connect

Have you ever heard of the phrase “smelly feet”? This happens when germs on the feet come in contact with sweat. Children who wear shoes whole day, and that too without socks, **accumulate** more dirt on their feet. Germs love to feed off on dirty and smelly feet. We should keep our feet clean. Wash your feet at least twice a day. Use a clean cotton cloth or towel to wipe them dry. Keep the shoes clean and dry. Dirty shoes have germs.

Nails

We should trim nails weekly. Keep nails short and clean. Nail biting should be **discouraged**. The nails and nail beds might have germs.

Clothes

We should wear clean and washed clothes every day. Dirty clothes have germs and these can cause skin problems or infections.

LOOKING AFTER OUR BODY

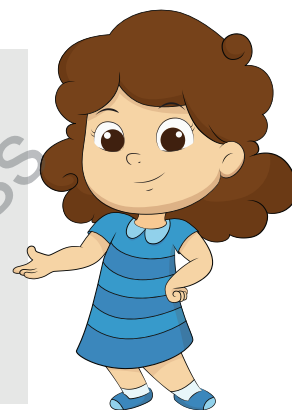
We need food to live, keep healthy and grow. Body-building foods such as milk, eggs and nuts make our bones and muscles strong. Energy-giving foods such as rice, jaggery and potato give us energy to work, play and do other activities. Protective foods such as fruits, vegetables and nuts help our body to fight diseases. Healthy eating is very important.

- ◆ We must wash our hands and mouth before and after every meal.

- ◆ We must eat slowly and chew our food well. We must not speak while eating. It can **choke** us.
- ◆ We must eat fresh food. Eating **stale** food can make us fall sick.
- ◆ We should eat different food types in the right quantity.
- ◆ We must not eat uncovered food sold by **hawkers**. It might have germs.



- ◆ Drink 8 to 10 glasses of water every day.
- ◆ Drink at least two glasses of milk daily.
- ◆ Eat lots of fruits and vegetables daily. They make us strong and prevent us from falling ill.



Life Connect

"We should eat a lot of **junk** food." Is this statement correct? Discuss in class.

Exercises such as **yoga** and **aerobics** make us strong and fit. We should also do outdoor activities like cycling and swimming to stay fit.

We should also rest after work and play. A good sleep at night for about eight hours is necessary. When we wake up, we feel fresh and energetic. We should get up early in the morning.



Yoga



Playing outdoor games

Name any two indoor games that you like to play. Why do you like to play them?

.....

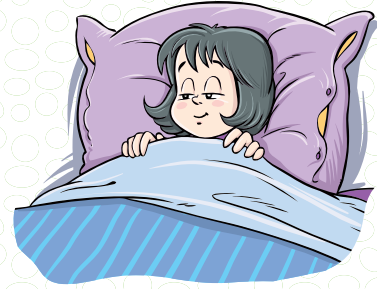
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Quick Check

Tick (✓) the correct action. Cross (X) out the incorrect one.

1. Sanjay is biting his nails. ☐
2. Nakul slept for only 2 hours last night. ☐
3. Farida drinks two glasses of milk daily. ☐
4. Hina combs her hair daily. ☐
5. Kanak does not brush her teeth at night. ☐



CLEANLINESS IN THE SURROUNDINGS

Cleanliness is the most important way to prevent diseases. Cleanliness of house and surroundings is necessary.

Causes of Unhealthy Surroundings

Things that are no longer useful or wanted and are thrown away, are called as **garbage**. The garbage that we throw in our house and in our surroundings (roadside, playgrounds, rivers, lakes, ponds, etc.) cause unclean surroundings. This can make air and water dirty. Inhaling dirty air and drinking dirty water can make us fall sick. Spitting on roads and walls, misusing parks, use of plastic bags and materials, and so on, also makes our environment dirty and unpleasant.

INFO HUB

Plastic bags and other plastic garbage thrown into the water bodies, kill as many as 1 million sea **creatures** every year.



Ways to Improve the Surroundings

We should keep our surroundings neat and clean.

- ◆ The use of plastic bags should be stopped. Use environment-friendly bags. You may use paper or jute bags.
- ◆ Always throw garbage in dustbins.

- ◆ Do not allow water to collect in your surroundings. Insects reproduce in **stagnant** water. These insects may bite you and make you fall ill.
- ◆ Do not spit on roads or walls. It is a bad and unhealthy habit.
- ◆ Grow more and more plants to make your surroundings green and beautiful, and the air fresh.

ACTION TIME

1

Make slogans and posters on personal hygiene and on keeping the surroundings clean. A role play can be performed in the school assembly to spread **awareness** about this among others.



Life Connect

SWACHH BHARAT ABHIYAN

Cleanliness is a good habit which everyone should have, to have, healthy life and lifestyle. **Swachh Bharat Abhiyan (SBA)** or **Clean India** is a campaign by the Government of India with a mission to clean Indian cities and villages. It was launched by our honourable Prime Minister, Mr Narendra Modi, on 2 October 2014, at Rajghat, New Delhi. It is considered to be India's largest ever cleanliness drive. About 3 million government employees, and especially school and college students from all parts of India are participating in this campaign.



ACTION TIME

2

Using the Internet, find out how the various Swachh Bharat Abhiyan campaign **ambassadors** are helping in various fields in order to make this campaign successful.

KEY TERMS

Surroundings: Everything around us

Hygiene: All the activities that you do to keep yourself clean and healthy

Garbage: Things that are no longer useful or wanted and are thrown away

QUICK NOTES

- * We should keep ourselves and our surroundings neat and clean.
- * Health and hygiene go hand-in-hand. Personal cleanliness is the first step of keeping our surroundings clean.
- * We should wash our hands before and after meals. Hands should be washed with soap after using the toilet and after playing.
- * We should keep our mouth and teeth clean. We should brush our teeth twice a day.
- * We should oil massage and wash our hair on a regular basis with a good shampoo or soap.
- * We should keep our nails short and clean.
- * We must eat the right quantity of different food types.
- * We should drink 8 to 10 glasses of water every day.
- * Swachh Bharat Abhiyan (SBA) or Clean India is a campaign by the Government of India with a mission to clean Indian cities and villages.

RUN-THROUGH

I. Very Short Answer Questions

A. Write CS for the correct sentence. Write IS for the incorrect sentence.

1. Sita washes her hands only after the morning meal.
2. Raina says, "Bathing keeps you fresh and healthy."
3. Hari washes his hair only once a month.
4. Beena likes to keep her nails long and clean.
5. Shitij has volunteered for 'Clean India' drive.

☐
☐
☐
☐
☐

Ambassador: A person who promotes or represents an activity

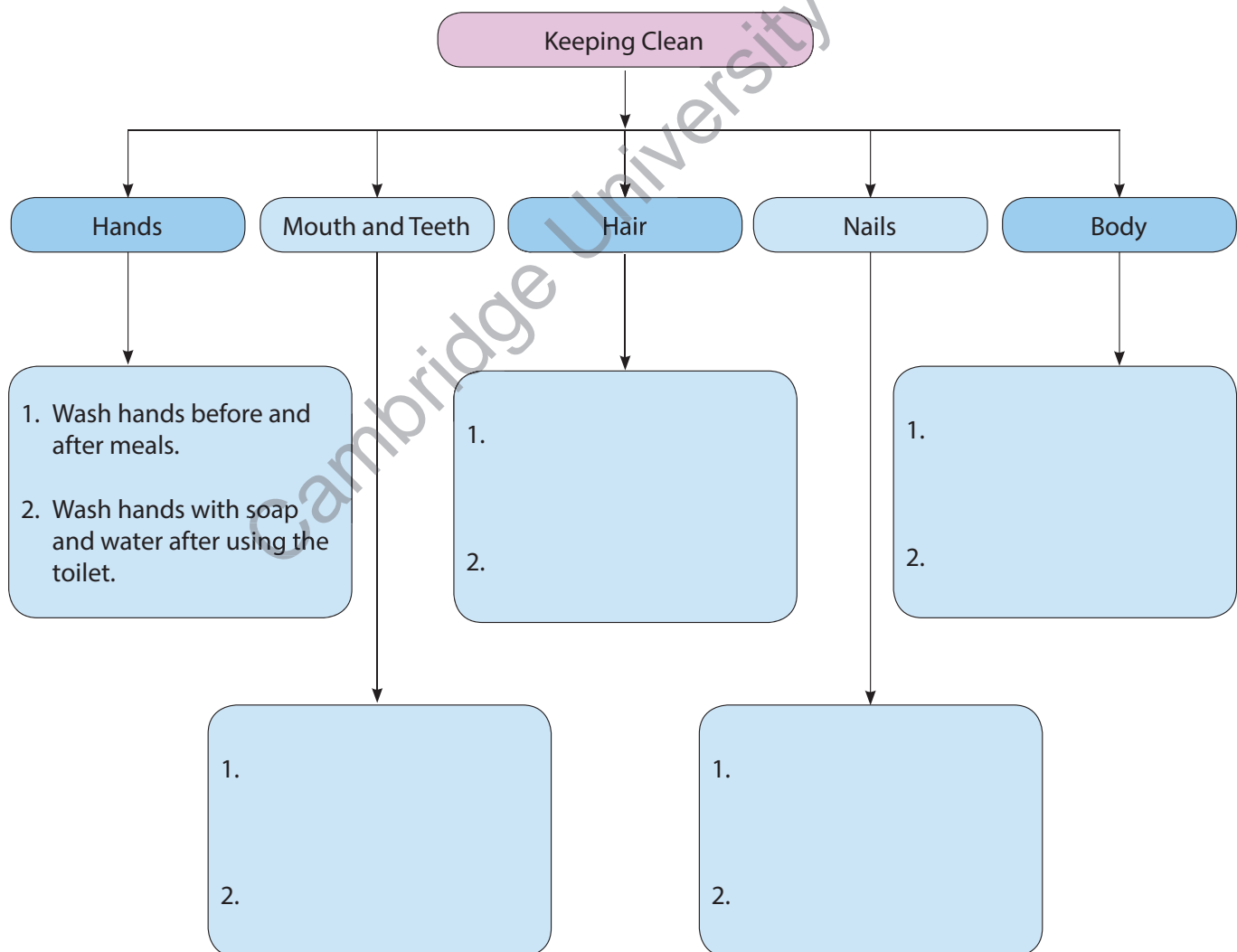
B. Fill in the blanks.

1. We should develop (**good/bad**) habits to stay healthy.
2. We should visit a (**park/dentist**) every six months.
3. We should trim our (**clothes/nails**) weekly.
4. We must eat (**fresh/stale**) food.
5. We should exercise (**daily/sometimes**).

C. Unjumble and define the following words.

1. YGHEENI
2. SSRRUUONINGD
3. LECAN DIAN
4. SIXEERCE
5. ALOR HG YIEEN

D. Complete the concept map. One is done for you.



II. Short Answer Questions

- Complete the following sentences.
 - Bathing not only keeps you fresh and clean, but also
 - A good sleep at night ...
 - We should eat different food types ...
 - We must not speak while eating because ...
 - Swachh Bharat Abhiyan is a campaign ...
- Why should we exercise and rest?
- How can surroundings become unhealthy?



III. Long Answer Questions

- Ravi is having a toothache. Suggest how to have a good oral hygiene to him.
- Hina did not bathe for two days. Rohan told her, "Why do you look so ill today, Hina?" Why do you think it is important to take bath daily?
- Write any four ways by which you can take care of your body.
- Write any four ways to improve the surroundings.
- Jayant says to his mother, "Mummy, there are a lot of mosquitoes in the water that has collected outside our gate." What do you think they should do?

IV. Challenge

- Case Study:** After coming back from school in the afternoon, Zeba spends most of her time playing games on her mother's smartphone. Her friends keep calling her in the evening to play in the park. But Zeba finds the smartphone more interesting than the park. Do you think Zeba has a healthy day-to-day routine?



- Guess, who am I?**
 - I am a hand tool used to trim nails. N _____
 - I am a flat device with pointed teeth used to make hair styles. C _____
 - You massage your scalp using me. O _____
 - You use me to wash your hands after going to the toilet. S _____
 - I am used for sweeping the floor. B _____

V. Enrichment

A. School Cleanliness Survey and Discussion

Visit around the school premises. Tick (✓) the correct answer. Then discuss how is cleanliness maintained or can be maintained in your school.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. I feel the cleanliness of our school needs no improvement.					
2. I think more effort should be made to keep our school clean.					
3. The toilets are clean and hygienic.					
4. Our classrooms are clean.					
5. The taps are never leaking.					
6. The dustbins are always kept covered.					
7. The playgrounds are well maintained.					
8. The area outside of the school is well-kept.					

B. Project and Report

Work in groups of two. Meet at least five families in your neighbourhood. Discuss and suggest ways to reduce garbage on roads and in the surroundings. Make a report and submit to your Science teacher.

C. "How can I support the Clean India campaign?" Write in 150 words.

SCIENTIFIC QUEST

Look at these children. They are doing yoga. How are these yoga poses useful for our body? Take help from your elders and teacher. Discuss in class.



Cow pose



Lion pose



Frog pose

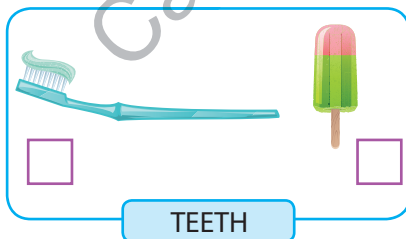
ENJOY SCIENCE

Find the names of at least FIVE words/things related to cleanliness in given word grid.

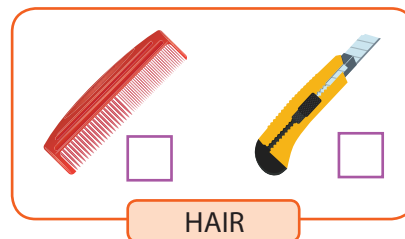
S	L	F	O	F	D	C	E	N	E	I	G	Y	H
O	Q	B	R	O	O	M	D	G	J	R	E	W	Q
A	C	S	T	N	A	L	P	Q	X	B	A	T	H
P	F	J	D	U	S	T	B	I	N	J	X	G	V
F	X	O	C	Z	Q	F	Z	R	E	T	S	U	D

PICTURE SURVEY

1. Tick (✓) the thing that is good for each of your body parts.



TEETH



HAIR



NAILS

2. Story writing

Narrate a story using the following picture story. You can talk about the importance of staying healthy and clean, good habits, and so on.



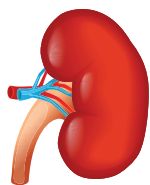
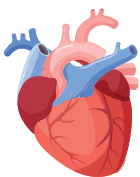
Chapters 1 and 2



Worksheet 1

Give one word for the following.

1. Fish swim with the help of these: □□□□
2. The certain age up to which all living things live: □□□□□□□□
3. They can make their own food: □□□□□□
4. Animals feel/sense changes around them with the help of these organs: □□□□□
5. This plant closes its leaves when touched: □□□□□□
6. Most plants grow from: □□□□□
7. This animal breathes through gills: □□□□
8. The young one of a dog is called: □□□□□
9. These give shape to our body: □□□□□
10. Human beings breathe in air through: □□□□
11. It is located in the head. It helps us to think: □□□□□
12. This organ pumps blood to the other organs of our body: □□□□□
13. Number of muscles in our body: □□□
14. These are two in number and located in our abdomen: □□□□□□□
15. Lungs and nose are connected through this pipe: □□□□□□□□
16. A simple form of exercise that ensures that more oxygen is taken in during inhalation: □□□□ □□□□□□□□
17. The belly contracts and goes in during this process: □□□□□□□□□
18. This system has nose, windpipe and lungs: □□□□□□□□□□





State true or false.

1. All birds have three feet and a beak.
2. Birds such as sparrows have weak, short and hard beaks.
3. Woodpecker has a chisel-shaped beak.
4. Ducks have broad, curved beak.
5. Swallows have sharp-edged beaks.
6. Hummingbirds suck nectar from flowers.
7. Crow is a water bird.
8. Parrots have three toes pointing forward and one behind.
9. Hens have sharp and strong claws.
10. Hens have talons.
11. Birds have three types of feathers.
12. Flight feathers are found in the tail of the bird.
13. Emu is a flightless bird.
14. The weaver bird makes its nest using twigs and grass.
15. Penguins live in warm places.
16. Sparrows have vase-shaped nests.
17. In earlier times, pigeons used to carry messages from one place to another.
18. A cuckoo bird does not build a nest.
19. We should brush our teeth five times in a day.
20. Sweat and dirt can make you healthy.
21. We should bathe daily.
22. We should keep our nails short and clean.

A. Match the following.

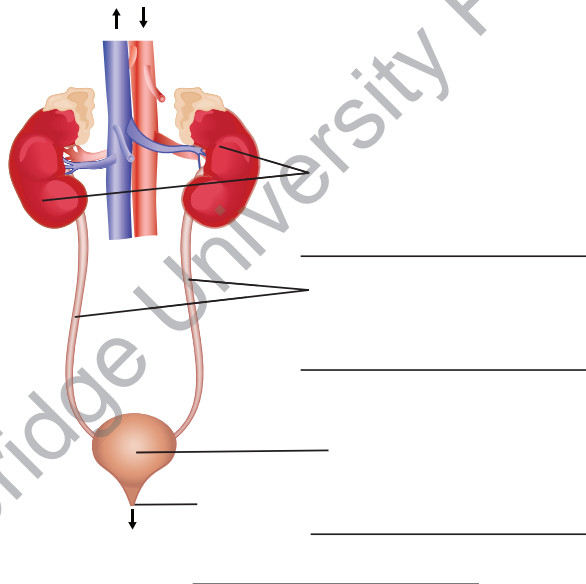
Column A

1. Reproduction
2. Rainbow
3. Cell
4. Atmosphere
5. Exhalation
6. Talons
7. Ornithology

Column B

- a. Blanket of air
- b. Study of birds
- c. Ability to give birth
- d. Sharp claws of flesh-eating birds
- e. Building block of life
- f. Natural non-living thing
- g. Breathing out

B. Label the following figures.



C. State true or false.

1. **Mimosa** closes its leaves upon touching.
2. There are millions of cells in our body.
3. The place where two or more bones meet is a joint.
4. Perching birds have talons.
5. The earliest known bird is hummingbird.

6. We must stay clean to keep the germs away. _____

7. We should drink 8 to 10 glasses of water every day. _____

D. Circle the odd one out.

- | | | | |
|-----------|---------|---------|---------|
| 1. SUN | CLOUD | CAR | RAINBOW |
| 2. CAT | HORSE | WHALE | VULTURE |
| 3. HEART | URINE | BLADDER | URETERS |
| 4. BILL | TALON | ROSTRUM | BEAK |
| 5. PIGEON | PEACOCK | PARROT | SPARROW |

E. Answer the following questions.

1. Plants cannot move from one place to another. Then why are they living things?
2. Name the part through which a grasshopper breathes.
3. Name any four animals that give birth to babies.
4. What is the function of kidneys in our body?
5. What is a skeleton?
6. What are perching birds. Give two examples.
7. What is the difference between upstroke and downstroke?
8. What is Swachh Bharat Abhiyan?
9. How can you keep your nails clean?
10. What are germs?

Social Studies

Cambridge University Press



My Family



On Your Marks...

Read and tick (✓) the correct answer.

Rachit lives in a joint family with his grandparents, parents, uncle, aunt and cousins, Ria and Rahul.

1. Rachit's father is Ria's father ☐ / uncle ☐.
2. Ria and Rahul are cousins ☐ / siblings ☐.
3. Ria's father's father is her uncle ☐ / grandfather ☐.
4. Rachit's mother is Rahul's aunt ☐ / sister ☐.
5. Rachit's grandparents are his parents' cousins ☐ / parents ☐.
6. Rahul's father's brother is Ria's father ☐ / uncle ☐.

I Shall Learn

- ☒ Types of families
- ☒ Changes in a family

Family

When you are born, you become a part of a group of people. This group of people becomes your family. Thus, a **family** is a group of people who are related to each other.

Families nurture us and help us become the people we are today. Family members stick together in both good and bad times. They take care of one



another. They celebrate occasions and special days like birthdays, weddings, and festivals together.

Types of Families

There are different types of families. Some families are big and have many members. Some families are small. People who are related to each other in a family are called **relatives**.

Arjun is going through his family album. Let us meet his family.

Arjun lives with his parents and his younger sister. He lives in a small family. A small family in which only the parents live with their children is called a **nuclear family**.

You know what ?

Elephants live together as a small family. They sniff and caress each other when they meet, to make sure that they are from the same herd.



This is Ria's family. Ria is Arjun's **cousin**. She lives with her parents, grandparents, uncle and aunt. Such a large family is known as **joint family**.

This is Arjun's cousin Karan. He lives with his mother. A family in which children live

with either of their parents is a single parent family.

Family structures have changed over the years in India. Earlier more number of joint families were commonly seen. Today, we find more and more nuclear families with working parents.



Roles in the Family

Everyone in the family has some roles and responsibilities. Every member needs to play his/her part for the family to work well and meet everyone's needs.



Activity 1



Who does the following work in your family?

Irons the clothes



Cleans the house



Cooks food for
all



Takes care of the
plants



Compare your answers with your partner's answers to understand how roles and responsibilities of members differ from family to family.

Parents who are **engaged** in a job or go out to work besides their duties as parents are called **working parents**. Taking care of home and children is work too. A person who manages the home and takes care of the family is called a **homemaker**.

Arjun's parents are engaged in a full-time job while Ria's mother is a homemaker. Karan's family used to live in Chandigarh but has recently shifted to Delhi because of his mother's job transfer. He has now joined a new school.



Our elders manage raising a family, going to work, taking care of the house and our needs. It is our duty to help them and share work at home. Arjun completes his homework all by himself when his parents are at work. Ria helps her parents in





cleaning up the house and organising the kitchen. Karan goes with his mother to get fruits, vegetables and groceries from the market. Remember, being responsible helps everyone at home.

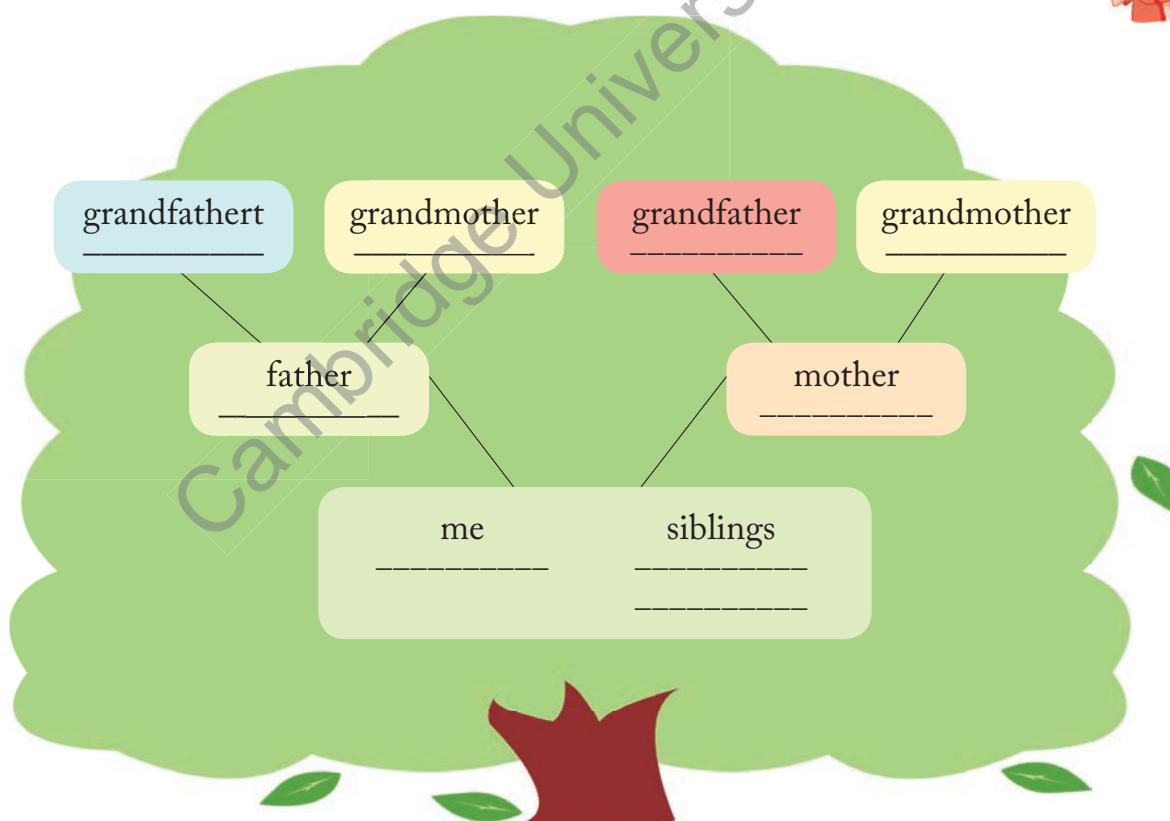


Families Grow and Change

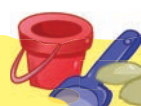
A family tree is a diagram that shows how people in a family are related.

Activity 2

Complete the family tree with the names of your family members.



Take a look at your classmates' family trees and compare.



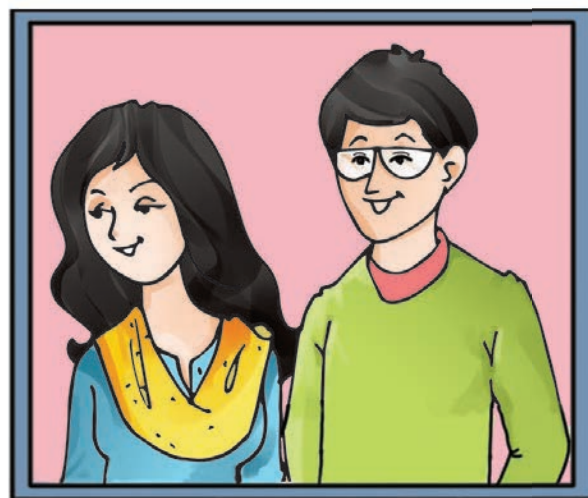
If you look at a family tree, you will see how families grow bigger with time. Families grow and change when new people become a part of it. Some occasions like marriage and the birth of a child bring changes in the family structure.



Arjun's uncle Aarav got married last year adding a new member to the family. Arjun now has a new aunt. This year Arjun's parents were blessed

with a baby girl. This added another member to their family. He now has a sister to play with. He is very excited to teach her new things. Living with **siblings** teaches us values like sharing, caring and taking responsibility.

Some families also **adopt** children and take care of them.



Think about it!

Do you have a younger brother or sister? How did your daily routine change after his/her arrival?



I Learnt

- There are different types of families - nuclear family, joint family, and single parent family.
- Every member has different roles and responsibilities in the family.
- Families grow and change when new people become a part of it.



Words I Learnt

Homemaker:	a person who manages home
Engaged:	occupied
Sibling:	children of your parents; a brother or sister
Cousin:	a child of one's uncle or aunt
Adoption:	when someone from one family is chosen to be part of a new family



Get Set, Go!

A. Fill in the blanks.

1. A _____ is a diagram that shows relationship between the family members.
2. _____ or the birth of a child brings changes in the family structure.
3. A _____ family consists of parents and their children.
4. People who are related to each other in a family are called _____.
5. A _____ parent is engaged in a job besides his/her duties as a parent.

B. Write true or false.

1. Families celebrate occasions and special days together. _____
2. Joint families are small families. _____
3. Every family grows and changes. _____
4. Our mother's siblings are our grandparents. _____
5. A marriage causes change in a family structure. _____

C. Answer the following questions.

1. What is the difference between a joint family and a single parent family?

2. Why do family members help each other?
3. Who is a homemaker?
4. How do families grow and change?
5. Why do we need a family?

D. Families spend time together by doing different activities. Look at the pictures given below and tick (✓) those which you enjoy doing with your family.


☐

☐

☐

☐

☐

☐


Life Skills



Families grow and their structure changes over a period of time. Talk to your grandparents or elders in your family. Request them to recall their life as children. Trace your ancestry and make a family tree with the names of your ancestors.





Connect

Creative writing

‘The only constant in life is change’, said Heraclitus. Do you agree or disagree? Think creatively and write an essay to justify your opinion.



Project

Do a survey in your locality. Interview different families to understand that changes vary from family to family. Ask them the following questions or make some of your own.

1. Were you born at the same place where you live now?
2. Where is your ancestral home?
3. Do you live with your relatives?
4. Is there any relative whom you have not met for many years?
5. Why did you move out of your ancestral home if you did?

Cambridge University Press



Changes in Neighbourhood and School



On Your Marks...

Look at the pictures given below and circle those which have changed in last few years.

I Shall Learn

- ☒ Changes in neighbourhood and school
- ☒ Adapting to changes



Which changes made you happy? _____

Which changes made you sad? _____

You have learnt about how families change with marriage and the birth of a baby. Let us learn about some more changes that take place around us and how they affect us.



Our Surroundings Change

As we grow up, we understand that everything changes with time. We may no longer live in the same house or even in the same city. We may not have the same set of friends and love the same food we once loved to have. We outgrow our clothes. We may not go to the same school. Change can be difficult but we should **embrace** it and learn from it.

Think about it!

Have you experienced any major change in your life?



Changes in the Neighbourhood

Karan used to live in Chandigarh with his mother who works for a bank. She was **transferred** three years ago to Chandigarh from Kanpur and now to Delhi. Karan has now joined a new school. He is happy about being in Delhi, but misses his life and friends back in Chandigarh.



Do you know if any of your classmates have moved from a different city?

Moving from one place to another to settle down there is known as **relocation**. Besides a transferable job, there are different reasons why people move within the city or to different cities and countries - for a new home, better job opportunities, higher studies, marriage, business and more.

Settling down in a new house, a new neighbourhood, a different city or even a new country can be very difficult. We should look at relocation or changing neighbourhoods as new life with new experiences and adventures.



Activity 1



Read the situations given below. How can these children overcome the problems? Think and share.

I have joined a new school.
I am too shy to make friends.
So, I stay quiet and do not
talk to anyone.



We moved to a new
house. I miss my favourite
corner. I do not step out of
the house for the fear of
getting lost.



I do not like my new house.
There is a lot of dirt around
the house and people throw
garbage everywhere.



Karan's mother knew how Karan felt about leaving Chandigarh. One afternoon, she took him out to show where she grew up in Delhi. She told him how there used to be hardly any traffic back in those days because there weren't so many vehicles. She showed him the street where hawkers used to sit and sell food items. A fancy mall has replaced the market where she used to go for shopping in her childhood. Karan loved the visit down the memory lane.

Karan's mother helped him understand how we can adjust to changes by exploring the new things around us. She reminded Karan



about the time he started going to school. At first, he did not like the school. But with time, he made new friends and enjoyed going to school.

Changes in School

Karan was very nervous on the first day of his new school. To ease him out, his mother explained how he goes to a new class every year where there are new teachers, new classmates, a new classroom, new timetable and many more things which are new. So why should he be scared here?

Karan gathered courage and was ready for his new school. When he came back home he was very happy. Not only had he made three new friends, everyone was very nice to him. Karan started looking forward to going to the new school.



We may find it difficult to manage in a new school. We should be patient and

wait for the new school to become familiar.

With time, you will get to know everybody and be able to make friends.



Have you had any experience of changing schools? Do you know anyone who has? How does it feel?

In fact, even schools undergo changes. With time, buildings change, new teachers join in, the strength of students increases, uniforms change, new trees are planted in the school garden, more sections are added and much more.

Changes in Friends

Even our friend circle changes with time. Following could be the reasons of change.



- You or your friend may move to a different city.
- You or your friend may change his/her school.

Remember, you may not get to see each other much. But that doesn't mean you have to stop being friends. You can cope with the change by:

- writing letters to your old friends.
- talking to them over phone.
- visiting them with your parents on special occasions.
- making new friends.
- sharing your feelings with your parents.



Adapting to Changes

Adapting means to adjust ourselves to the changes happening in our surroundings. Some changes may be big while some may be small. Some may make us sad while some may make us happy.

You can adapt to the changes by:

- looking forward to new experiences and meeting new people.
- keeping a positive attitude towards changes.
- rebuilding old routines. Just remember, even at a new place, you can still read the books you love and watch your favourite TV shows.

I Learnt

- Our surroundings change for many reasons.
- People shift to new cities, neighbourhoods and homes; children change schools; even our friends change.
- We must learn to adjust to the changes that happen around us.



Words I Learnt

Relocation: moving from one place to another to settle down there

Embrace: to accept something enthusiastically



Get Set, Go!

A. Fill in the blanks.

1. Karan used to live in _____ with his mother.
2. Moving from one place to another to settle down there is known as _____.
3. _____ means to adjust ourselves to the changes happening around us.
4. Keep a _____ attitude towards changes.
5. You can adapt to the changes by looking forward to new _____.

B. Write true or false.

1. You must keep positive attitude towards changes. _____
2. You can rebuild old routines at new place. _____
3. Embrace means to reject something. _____
4. Changes can be difficult to deal with. _____
5. As we grow up, everything changes with time. _____

C. Answer the following questions.

1. Who has moved to the city? How does he feel about it?
2. Why do people relocate?
3. Where did Karan's mother take him? Why did she do that?
4. How should we cope with change in friends?
5. How can you adapt to changes?

D. How has your life at school changed in a year? Fill in the table with correct information.

	Class 2	Class 3
Name of the class teacher		
Class and section		
Number of Subjects		
Favourite Subject		
Favourite teacher		



Life Skills

For a day, change your seats. Sit with a new seat partner. Share your thoughts about the changes you experienced. How well did you adapt to the changes?



Connect

Adaptations in plants and animals

Science



Cactus

It is found in desert environment which is very hot and dry with little or no rain.



Polar Bear

It is found in cold and snowy environment. It predated on smaller animals such as seals.



Camel

It is found in desert environment which is very hot and dry with sandy ground which can be difficult to walk on.



Adaptations are the special features in plants and animals that help them survive in their environment. Write the name of the organism next to its adaptation below:

Adaptation	Organism's Name
They have humps on their backs as places to store fat. It is this fat that they live off when food and water are scarce.	
They have thick fur to keep themselves warm.	
They have roots which can grow deep in the ground to absorb as much water as possible.	
They are covered with pointy projections called needles to keep safe from predators.	
They have strong teeth and claws.	
They have long eyelashes to protect the eyes from sandstorms.	
Their huge feet help them to walk on sand without sinking into it.	



Project

Do you think there is any difference in the way your parents lived before you were born and now? Hold a discussion with elders in the family on how their lives have changed over the years. Ask them to show you old pictures of houses they lived in, the kind of clothes they wore, the food they ate, etc. Share it in your class. Discuss why it is important to accept and appreciate diversity and adapt to changes.



Changes in Transport



On Your Marks...

What is wrong in this picture? Write it in the blanks given below.

I Shall Learn

☒ Changes in transport



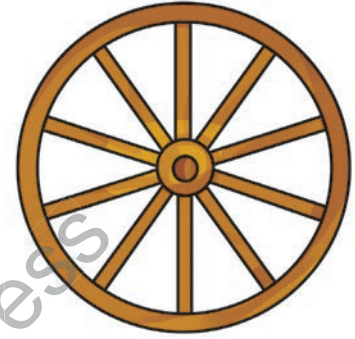


Means of Transport

Means of transport help us to travel from one place to another. We use different means of transport depending on the distance to be travelled. In the early times, the means of transport were very simple and slow. Over the years, they have improved greatly.

Older Means of Transport

In the earlier times, people either walked from place to place and often took help of animals to travel and carry things. However, the invention of wheel made travelling much easier. Wheels enabled people to use animal-drawn carts to carry people and things around.



Members of royal families travelled in horse-drawn carriages. Soldiers travelled and fought battles on horsebacks. Since ancient times, camels have been a common medium of travel and transportation in the desert areas around the world. Kings took help of Elephants in the battlefields. Even today, in forest areas, people take help of elephants to carry heavy logs of wood.

Modern Means of Transport

As time passed, many new advanced modes of transport came in use. Even though we still take help of animals in carrying things, most journeys now are made with the help of vehicles or modern means of transport.

Land Transport

Vehicles that are used to travel on land are means of **land transport**. Roads are used for walking, travelling on bicycles, scooters, motorcycles, cars, buses and trucks. The first bicycles were invented about 200 years ago. They had no pedals. The wheels were made of wood or iron and were known as bone shakers. Modern bicycles have



Old steam engine

a light frame, rubber tyres and a chain to drive the wheels. Special cycles are fitted with systems to run on different speeds. The first cars were simple vehicles that could literally be called “horseless carriages”.

Rail transport is a means of carrying passengers and goods on wheeled vehicles running on rails, also known as tracks. The tracks make travel less bumpy. The early trains were drawn by horses. Then, the steam engines came and later, the diesel locomotives and now trains run on electricity.

Trains are economical and best suited for long distance travel.

Rail transport was made faster and better with the development of rail-based mass rapid transit system such as metro services in India. These trains are a way of transporting maximum passengers rapidly without overloading the surface transport systems in big cities. Now, metro trains run in almost all the metro cities of India. They travel both underground and on elevated tracks.



Delhi Metro

You know what ?

Can you identify the vehicle in the picture? This is a tram car that runs in Kolkata. Trams are vehicles powered by electricity. They run on rails laid on public roads. In India, horse-drawn trams were introduced in Kolkata in 1873. The first electric tram was introduced in Chennai in 1895. Later, many Indian cities adopted tram services. Most tram services were discontinued after independence. The Kolkata tram is currently the only operating tram network in India.



Water Transport

Vehicles that are used to travel on water are means of **water transport**. Human beings probably made their first journeys on water by floating on rivers and bays on top of the tree trunks. The first canoes were believed to be made by hollowing out tree trunks. Tall



grasses or reeds were bundled together to make rafts. Today, boats and motorboats are used to travel short distances in rivers and oceans. Ships carry passengers and goods from one country to another on oceans. Hovercrafts, another means of water transport, can travel both on land and water. It can travel faster than ships.



Boat on a river

Air Transport

Aeroplanes and helicopters are the two main means of **air transport**. Almost all cities and countries of the world are connected by air. Aeroplanes can transport hundreds of passengers to their destination within a short period of time. Some planes also move cargo from one place to another. Aeroplanes also help in courier services. Helicopters can fly to places where aeroplanes cannot. Rockets are used for travelling to outer space.



An aeroplane flying above the clouds

Activity



A. Some means of transport are slow while some are fast. Arrange the vehicles in the increasing order of their speed.

Bicycle Train Scooter Car Aeroplane

B. How would you travel to the following places?

1. To a hill station _____
2. To another country _____
3. To a nearby market _____



I Learnt

- Means of transport have undergone a lot of change over a period of time. In the earlier times, people used to walk or took help of animals to travel and carry things.
- The invention of the wheel made transport much easier. Since then, many new modes of transport have been developed:
 - Land transport: Bicycles, buses, cars, trains
 - Water transport: Boats, ships, hovercrafts
 - Air transport: Aeroplanes, helicopters, rockets

Words I Learnt

Means of transport: the vehicles we use to travel from one place to another



Get Set, Go!

A. Write true or false.

1. Some planes also move cargo from one place to another. _____
2. Rockets are used for travelling to outer space. _____
3. Rail transport is a means of carrying passengers and goods by air. _____
4. Hovercrafts can travel both on land and water. _____
5. Wheels made travelling difficult. _____



B. Fill in the blanks.

1. In the earlier times, people _____ to go from place to place.
2. Aeroplanes also help in _____ services.
3. _____ is an example of water transport.
4. _____ is an example of land transport.
5. _____ is the most commonly used means of air travel.

C. Match the following.

- | | |
|---------------|-------------------|
| 1. Metro | a. outer space |
| 2. Helicopter | b. road transport |
| 3. Bicycle | c. train |
| 4. Hovercraft | d. land and water |
| 5. Rockets | e. air transport |

D. Answer the following questions.

1. How did people travel in earlier times?
2. Write about the animals used for transport.
3. Which animals were used in ancient battles and wars?
4. What is the utility of ships and boats?
5. Describe the modern means of transport.



Life Skills



People in Netherlands travel more by bicycles than by any other means of transport.

1. Why do you think this is so?
2. How is cycling good for our health and the environment?
3. How can you replace cars with bicycles in your routine travels?





Connect

English

Sit in big groups and weave a story about a family going on a road trip. One student gives it a start by saying a line and others shall continue by adding on to it using their imagination and creativity. Twist in the game is that every third person in the group has to mention a vehicle in the line they say.



Hint:

- Where is the family going?
- Who will they meet?
- What will they see?



Project

Find out about the Rail Museum with the help of your parents or teachers. The Rail museum focuses on the rail heritage of India and displays the development of rail engines and bogeys over the years through miniature and life-size models of trains. Prepare a chart on your findings and present it in the class.





Together We Stand



On Your Marks...

Which of the two statements are based on assumptions? Identify and put a (×) against them.

1. a. Boys are better at Math than girls.
b. Any boy or girl can be good at Math.
2. a. People who wear glasses are smart.
b. Glasses are not a marker of smartness.
3. a. Girls do not like to watch cricket.
b. Some girls may enjoy watching cricket while some may not.
4. a. Everybody likes the lunch break.
b. Everybody may not like the lunch break.
5. a. All girls like the colour pink.
b. All girls may not like the colour pink.
6. a. Boys don't cry.
b. Anybody who feels like crying can cry.

All the statements in a. part are assumptions. These may be true for some people but not for all.

I Shall Learn

- ☒ Gender Sensitivity related to work and play

Every individual in this world is unique. People may have similarities but everyone has a unique identity.



Assumptions about an individual can lead to unfair **judgements** or **stereotypes**. An assumption about a particular person or thing is called a stereotype.

The societal expectations about how girls and boys should behave is called **gender stereotyping**. It is important to understand that choices, habits and skills are not determined by our gender. What a person likes and chooses to be depends on individual preference irrespective of his or her gender.

We should learn to accept people the way they are. Being **tolerant** means to accept the differences that exist among people. Remember that while we should respect every individual, people who are mean or disrespectful towards others should not be tolerated.

Ways to show tolerance:

- Do not judge people.
- Try to know people instead of assuming things about them.
- Treat people the way you want them to treat you.
- Stand up for people who are not being treated right.



Breaking the Stereotypes at Work and Play

Participation of girls and boys have increased in the activities that were earlier considered more appropriate for the opposite gender. This has challenged the gender stereotyping that happens in various professions. Sports was stereotyped as a field where mostly men excelled. The increasing participation of girls in sports has broken that assumption. More and more girls are opting for sports as a career.



Earlier, arts was stereotyped to be an area where mostly girls could excel. The increasing participation of boys as creative artists has broken that stereotype. More and more boys are aspiring to become chefs, fashion designers, painters, etc.

Let us read about some men and women who are breaking the stereotypes and changing the world.



Who says women are not meant for sports?

A 23-year-old girl from Tripura, Dipa Karmakar became the first Indian woman gymnast to qualify for the Olympics in 2016.



Gymnast Dipa Karmakar at the Indira Gandhi indoor stadium in New Delhi

Who says men can't cook?



India's most celebrated chef,
Sanjeev Kapoor

Sanjeev Kapoor is India's most famous celebrity chef who gets featured in a lot of cookery shows. His contribution to Indian cuisine has been recognised by the Government of India too, who conferred on him the National award of "Best Chef of India".

Who says women are meant for household jobs and men are meant for jobs outside?

An Olympic Indian boxer from Manipur, Mary Kom is a five-time World Amateur Boxing champion. After giving birth to twins in 2007, Mary Kom won the silver medal at the 2008 Asian Women's Boxing



Mary Kom, Olympic Indian boxer



Championship. The 2012 London Olympics brought her more respect and honour as she became the first Indian women boxer to qualify and win a bronze medal at the Olympics. While she pursued her career in sports, her husband Onler Kom took care of the household responsibilities and supported Mary in her pursuits.

Who says women are not meant for tough jobs?

The first woman to join the Indian Police Service (IPS) in 1972 was Kiran Bedi. She also received the president's police medal in 1979.



Kiran Bedi, retired IPS officer

Who says women are not good drivers?

Mira Erda has already proven her mettle in the

Think about it!

Have you ever faced gender stereotyping?
What can you do to break such stereotypes?



national and international races. She is one of the first Indian female driver to race in Euro JK series which is one of the highest classes of Formula racing in the country.

Who says men can't become good artists?

Considered to be the flag bearer of classical dance form of Kathak, Pandit Birju Maharaj, started dancing at the age of 7. He has performed in almost all the countries across the globe. Pandit Birju Maharaj is not only a Kathak dancer but also a poet and a captivating



Indian Classical Dancer
Pandit Birju Maharaj

You know what?

Bachendri Pal was the first Indian woman to reach the Mount Everest summit in 1984.

orator. He has won several honors and awards including the Padma Vibhushan (1986).





Chhavi Rajawat, youngest female Sarpanch

Who says women cannot take care of the country?

A young leader set to change the face of rural India, Chhavi Rajawat is the sarpanch of her village, Soda. She is reportedly the youngest person to hold the office of sarpanch.

Activity



How can you help to break the stereotypes? Think and Share.

I Learnt

- People may have similarities but everyone has a unique identity.
- Habits, choices, qualities and activities are not decided by gender.
- We should not assume things about people. This is because assumptions can lead to unfair judgements or stereotypes.
- While we should respect every individual, people who are mean or disrespectful towards others should not be tolerated.

Words I Learnt

Stereotype:	an assumption about a particular person or thing
Tolerance:	the attitude to accept the differences that exist among people
Judgement:	an opinion about something/someone



Get Set, Go!

A. Fill in the blanks.

1. People may have similarities but everyone has a _____ identity.
2. _____ people the way you want them to _____ you.
3. Being _____ means to accept the differences that exist among people.
4. _____ is an assumption about a particular person or thing.
5. The societal expectations about how girls and boys should behave is called _____ stereotyping.

B. Write true or false.

1. Mary Kom is a boxer. _____
2. Every individual in this world is unique. _____
3. Try to know people before you make assumptions about them. _____
4. Sanjeev Kapoor is a pilot. _____
5. Assumptions can lead to unfair judgements. _____

C. Choose the correct answer.

1. We should learn to _____ (accept/reject) people the way they are.
2. When we accept the differences that exist among people, we show _____ (happiness/tolerance).
3. _____ (Stand up/Do not stand up) for people who are not being treated right.
4. _____ (Dipa Karmakar/ Kiran Bedi) became the first Indian woman gymnast to qualify for the Olympics in 2016.
5. A person's likes and choices depend on his/her _____ (individual preference/gender).

D. Answer the following questions.

1. What is a stereotype?



2. What is gender stereotyping?
3. List four ways to show tolerance.
4. Give details about any four people who have challenged gender stereotypes.



Life Skills



We often unintentionally create stereotypes while talking in our day-to-day life. Read and identify what should be the correct response.

1. Harsh wants to become a Chef. His mother says,
 - a. "Think about it, Harsh. Boys usually do not choose that profession." ☐
 - b. "Why not? You must pursue the career of your interest." ☐
2. Ria wants to become a professional wrestler. Her father says,
 - a. "Girls can't become wrestlers." ☐
 - b. "With hard work and discipline, you can become anything you want to." ☐
3. Rohan makes fun of his brother when he chooses a red t-shirt over the blue one. His mother interrupts and says,
 - a. "Our likes and dislikes may be different from others. Please respect everyone's choices." ☐
 - b. "Pick a different colour for your brother, Rohan." ☐



Project

Have you come across some stereotypical characters in films, television shows or read about them in books? A bully who is big and tough and is always mean. A cop who is always chasing criminals and is involved in car chases. Make a list of such characters and their features. What does this tell you? How do you think television and films stereotype people? Discuss how can the media (newspapers, television, movies) help to reduce stereotyping?

Time is of the Essence

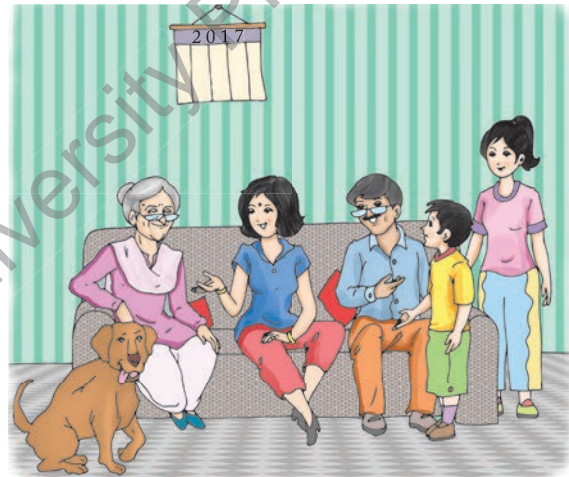
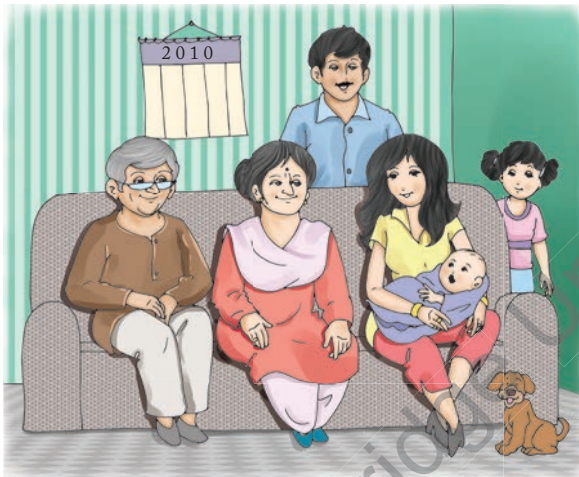


On Your Marks...

Meet Chandni and her family. Look at the family pictures given below and write the things that have changed over the years.

I Shall Learn

☒ Concept of time



1. _____
2. _____
3. _____
4. _____
5. _____

Does your list give you an idea about how things were before in the family and how they have changed in the past seven years? Has your family changed over the years too?



Time

If we want to measure how tall we are, we need a measuring tape. To measure how much our body weighs in kilograms, we need a weighing machine. Similarly, if we want to measure events and track when they happened, we need a clock or calendar to measure time. **Time** is used to measure anything that is happening right now, has already happened or will happen. All that has already happened before today is the **past**. What is happening currently is known as the **present**. What will happen tomorrow or later is known as **future**.

Activity 1

Fill in the blanks with the correct answer.

1. A day has _____ hours.
2. An hour has _____ minutes.
3. A minute has _____ seconds.
4. _____ days make one week.
5. One month has _____ or _____ days.
6. _____ months make a year.



Akash and his family had planned a trip to Goa during his summer vacations. He was very excited because it was the first time he would see beaches. He had packed his bags and could not sleep all night since they were leaving next morning. Next day, everyone had to get ready by 8. Akash was ready early and kept **staring** at the clock in the hall. When he could not wait anymore, he went to his room to get his wrist watch. Suddenly, he screamed at the top of his voice. It was 8:30 already! The clock in the hallway was not working and had stopped at 7:30. The family packed their bags in a rush and left for the station.



If Akash had not checked the time on his wrist watch, they would have missed the train.

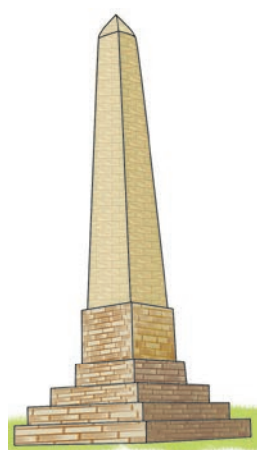
Think about it!

Have you ever been late due to a faulty watch?



Measuring Time

The word 'clock' comes from the French word '*cloche*' meaning bell. In simple terms,



a clock is a device that tells the time. But before the **invention** of clocks, people measured time in different ways. Let us read more about it.

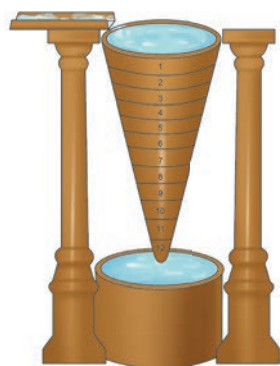
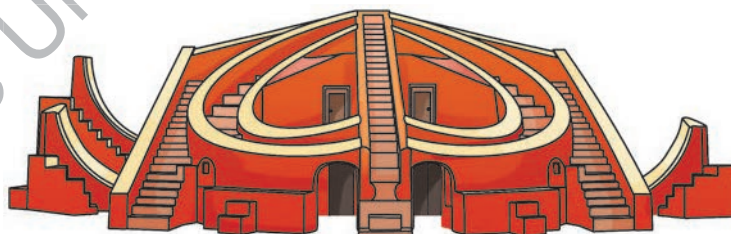
In the olden days, Egyptians built **obelisks**, or tall monuments, to measure the shadows cast on the ground and thus calculate time.

You know what ?

Did you know that the Jantar Mantar in Jaipur has the world's Largest Stone Sundial?

Since they were not always correct, sundials were built. A **Sundial** is a form of a clock which uses the Sun to tell time.

In a sundial, the shadow moves as the Sun moves across the sky just like the hands of a clock. Maharaja Jai Singh II of Jaipur built five Jantar Mantar monuments in India which housed sundials to **predict** time.



To remove the dependence on the movement of the Sun, **water clocks** were invented. In a water clock, certain amount of water drips into a container which gives an idea of the time passed.

However, short time periods could still not be measured. This was possible with the **hour glass**. It measured time by



tracking the time taken for sand to reach the lower compartment from the upper compartment.

Activity 2



Explore an hourglass. Try to complete your homework before all the sand falls. What other tasks can you do in this duration of time?



In 1583, Galileo Galilei demonstrated how a **pendulum** clock works. Years later, in 1656, Christiaan Huygens designed the first pendulum clock making clocks more **accurate**.



The first battery-driven clock was invented in 1906. Clocks with a digital display, where the hours, minutes, and seconds are shown as numbers are called **digital clocks**. **Atomic clocks** are the most accurate clocks in the world. They were built in the mid-1900s.



Long ago, watches were commonly kept in a person's pocket. Ask your grandparents if they used such a watch.

Everything changes with time and so did the ways with which we measured the time. Thousands of years ago, people did not feel the need to worry about time. They woke up when the Sun rose and went to bed when it set. But today, keeping up with time is so important that clocks seem to rule our lives.

Calendars are another way by which we can measure time. A **calendar** tells us the days, months and years. Just like 365 days make a year, ten years make a **decade**. A hundred years is known as a **century** and a thousand years is known as a **millennium**.

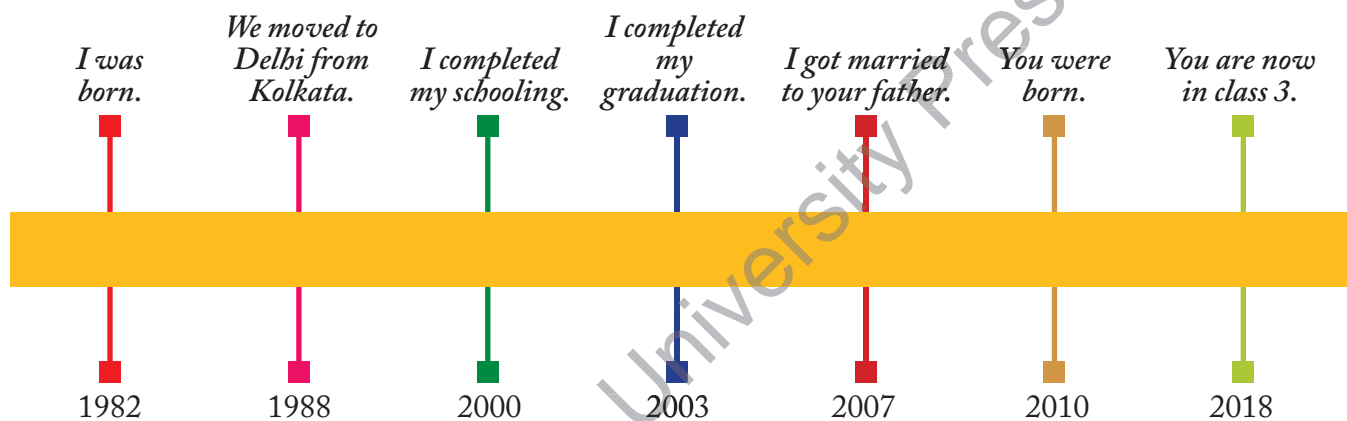


Keeping Track of Time

A **timeline** helps us in keeping track of the events that happen in our life. It also helps us in **tracing** how times have changed over the years which gets documented and recorded as history. Aarav was going through the family album and kept asking his mother questions. His mother got a sheet of paper and pen to explain how her life had changed over the years.

You know what ?

A year has 365 days. But did you know that a leap year has 366 days? A leap year usually occurs after every four years.



Aarav was amazed to see how one could keep track of all the important moments of our life.

Events

A number of events take place in our lives that we **cherish**. For example, a birthday



party which you enjoyed the most, a wedding in the family, the day your family

bought a car, when you came first in a competition and many more. Timelines help us record events and keep our memories fresh.

Think about it!

How has your life changed over the years? Discuss.



Activity 3

Write the dates on which you celebrate the following events and make your own timeline.



1. Your mother's birthday
2. Your father's birthday
3. Your birthday
4. The day you started school
5. The day you passed class 2
6. The day you started class 3

Time is Precious

Have you heard the phrase “time and tide wait for none”? This proverb explains the importance of time and tells how time is precious. Lost time never comes back, it becomes a part of our past. If we do not focus on studies today, we may not do well in our exams. The time we spent playing and enjoying instead of studying is gone. Therefore, we should utilise our time to do the right things. If you get up late in the morning, chances are you will miss the school bus because you lost a lot of time. Therefore, we should always be **punctual** and value time.

I Learnt

- Time is used to measure anything that is happening right now, has already happened or will happen.
- Before the invention of clocks, people measured time in different ways.
- A timeline helps us in keeping track of the events that happen in our life.

Words I Learnt

Staring:	looking at someone or something with one's eyes wide open
Invention:	the action of creating something new
Predict:	to say what will happen in the future
Accurate:	correct in every detail
Tracing:	tracking
Cherish:	to hold something or someone dear
Punctual:	being on time



Get Set, Go!

A. Fill in the blanks.

1. All that has already happened before today is called the _____.
2. A _____ helps us in keeping track of the events that happen in our life.
3. _____ were invented to remove the dependence on the movement of the sun.
4. The first _____ was invented in 1906.
5. A hundred years is known as a _____ and a thousand years is known as a _____.

B. Write true or false.

1. Time is used to measure anything that is happening right now, has already happened or will happen. _____
2. Jantar Mantar monuments in India have sundials to predict time. _____



3. In 1583, Galileo Galilei demonstrated how an atomic clock works. _____
4. Digital clocks are the most accurate clocks in the world. _____
5. A timeline helps us in tracing how times have changed over the years. _____

C. Choose the correct answer.

1. What will happen tomorrow or later is known as _____ (future/past).
2. The word clock comes from the French word 'cloche' meaning _____ (bell/time).
3. _____ (obelisk/hourglass) were built by Egyptians to calculate time.
4. Short time periods could be measured for the first time with the discovery of _____ (water clock/hour glass).
5. Just like 365 days make a year, ten years make a _____ (century/decade).

D. Answer the following questions.

1. What is time? How do we measure it?
2. What is a sundial?
3. What are digital clocks?
4. What is a calendar?
5. What is a timeline?

E. Number the pictures given below to show how Aarav spends his day.













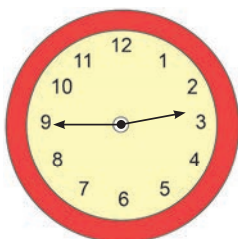


Connect

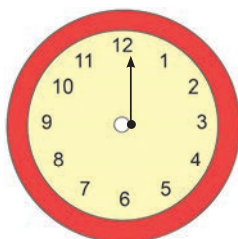
Maths

There are many words and phrases which we use when we talk about time. Look at the pictures and identify the time. Pick your answers from the help box.

1. Quarter past means 15 minutes have passed the hour.
2. Half past means 30 minutes have passed the hour.
3. A quarter to means 15 minutes are left for the next hour.
4. Twelve o'clock during day is known as noon.
5. Twelve o'clock during night is known as midnight.



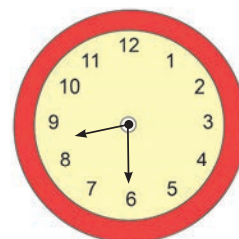
quarter to 3



half past 8



quarter past 5



noon/midnight



Life Skills



Since time is precious we need to find ways to manage it properly. Make a time table for yourself like the time table you have at school. List the days of the week and the time. Write what activity you do during that time. Make sure you follow it.





Project

Trace your own timeline!

Make a list of the dates of all the important events of your life. Example:

1. Born on _____
2. Took my first step _____
3. First day in school _____
4. Got my first bicycle _____
5. Learned to tie my shoelaces _____

Add more questions to this list. Now arrange the events on the timeline in the order of their occurrence starting with the day you were born.

Paste photographs for each event.

Cambridge University Press





Being Safe



On Your Marks...

Look at the list of safety tips. Tick (✓) the box against the tip that is correct and should be followed. Put a cross (×) against the tip that is incorrect and should not be followed.

1. It is safe to play with sharp and pointed objects.
2. Do not play with matchsticks.
3. Stand in a queue and do not push others.
4. Run while crossing the road.
5. Do not put your head or arm out of the window of a moving vehicle.
6. Talk to strangers and accept gifts from them.

I Shall Learn

- ☒ Safety rules at different places

☐
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☐
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☐

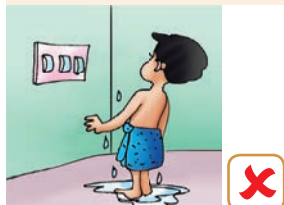
Safety Rules

We should follow the safety rules to be safe and protect ourselves from injury and getting hurt. Accidents can happen on roads, at homes, in schools, or in playgrounds. We can keep away from the accidents by following the safety rules at these places.



Safety Rules at Home

Do not touch the wires, switches and sockets with wet hands. You may get an electric shock.



Do not play with electronic gadgets and appliances like iron, music system, and mobile phones.



Do not touch matchsticks and stove in the kitchen.



Do not play with sharp and pointed objects.



Do not leave your toys, school bag, etc., on the floor. You may fall over them and get hurt.



Do not play with household cleaning items like detergents and toilet cleaners. They can be very harmful if we consume them by mistake. Some of them can also burn our skin.



Do not open doors for strangers.



Do not fly kites on rooftops or terrace in the absence of any elder.



Be Safe on the Internet

The Internet is a worldwide network connection through which we can connect with others. But, the Internet is not always safe. We must follow certain rules while using the Internet.

- Do not use the computer alone. Use the Internet only under the supervision of your parents or teacher.
- Do not share personal information like your house address and phone number over the Internet.



- Never speak to people you do not know on the Internet.
- Always tell your parents if you see something that makes you uncomfortable on the Internet.

Safety Rules at School

- Do not push each other. Always walk in a line. Do not run in the school corridor.
- Do not run around in the classroom. You may hit the desks and chairs and hurt yourselves.
- Do not run on the staircase. You may trip and fall down.
- Use the sharpen pencils carefully. Do not poke each other with them.



Safety Rules in the Playground

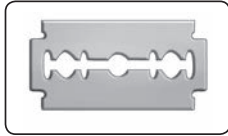
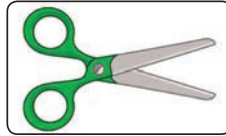
- Play with your friends in the playground. Do not play on the road.
- Do not talk to strangers and wander off alone.
- Follow the rules of the game.
- Do not play near thorny hedges, barbed wires, open wells or on roads.
- Wait for your turn while playing on the slides, seesaw, etc.
- Do not hurt each other and play safely. Rush to home if you get hurt.



Activity



Cross out (×) the objects that are not safe to touch.

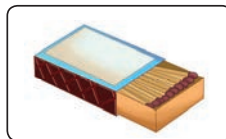

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Safety Rules on Road

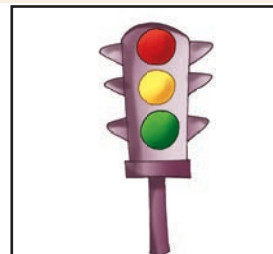
Cross the road only at the zebra crossing.



Look both ways before you cross the road.



Follow the traffic lights. Red light means "stop" while green light means "go". Yellow light means drive slow/be cautious. Cross the road only when the traffic light is red.



Wear the seat belt while travelling by car. Never put your hand or head out of a moving vehicle.



Always walk on the footpath.



Be careful of the potholes.



Wear a helmet while riding a two wheeler.



Do not get on or get off a moving bus.



Call someone for help when you see an accident. It is important to take the injured person to the hospital before the injury becomes worse.

Think about it!

Who helps to control the traffic?



First Aid

First aid is the basic medical help given to the injured person before the doctor arrives. First aid can stop an injury from getting bad. When we provide first aid to someone, we must take care of the following.

1. Always keep a first aid box handy. It must contain basic medicines, antiseptic solution and bandage.
2. Maintain calm and ask people not to crowd around the injured person.
3. If the injured person is bleeding, press the wound and tie a clean handkerchief over it.
4. If a person has suffered a burn injury, try to cool the wound using ice water or running tap water until the pain reduces.
5. We must ask the elders around to take the injured person to the doctor or to the hospital.

You know what ?

112 is the National Emergency Number in India.

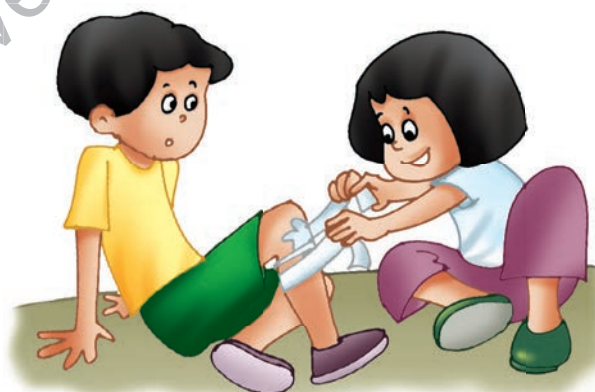
Other emergency numbers used in India are:

100 - Police Control Room

101 - Fire Brigade

102 - Ambulance

108 - Disaster Management Services



You know what ?











The first commercial First Aid Kit was made by Johnson & Johnson in 1888 to treat injured railroad workers. Since then, they made First Aid Kits for every need – workplaces, houses, for travel, schools, etc.



Good Touch and Bad Touch

Tick (✓) the correct icons to show how you would feel in the given situations.

- Your mother hugs you for helping her.
- Your teacher pats your back for scoring well in a test.
- Your classmate pushes you and takes your book.
- Your friend gives you a high-five after winning a game.
- Someone pushes you and snatches your tiffin.

	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>

We feel happy and safe when our parents and family members hug us or give us a pat for doing something well. These are examples of good touch. Any touch that makes us feel comfortable, happy and safe is a **good touch**.

Any touch that makes us feel uncomfortable, sad and unsafe is a **bad touch**. Hitting, pushing, pinching, kicking and any unwanted touches are bad touches.

If someone troubles you with a bad touch, say, “Stop. I do not like that!”

Call for help. Inform your parents or teachers about it.



I Learnt

- Safety rules keep us safe from all dangers.
- We must keep ourselves safe on the roads, at home, at school and in the playground.
- First aid is the basic medical help given to an injured person before the doctor arrives.
- If someone tries to hurt or make you feel uncomfortable, tell your parents.

Words I Learnt

First aid:	basic help given to an injured person before a doctor arrives
Good touch:	touches that make you feel safe and good
Bad touch:	touches that make you feel unsafe and uncomfortable



Get Set, Go!

A. Tick (✓) the correct answer to complete the sentences.

- Accidents happen when we follow ☐ /do not follow ☐ safety rules.
- First aid is given to an injured person before ☐ /after ☐ the doctor arrives.
- We should follow safety rules sometimes ☐ /all the time ☐.
- First aid is given to a healthy person ☐ /an injured person ☐.
- We must not touch switches with wet ☐ /dry ☐ hands.

B. Tick (✓) if it is safe. Cross out (✗) if it is not safe.

Activity	Safe	Unsafe
Sunita is touching the switchboard with wet hands.		
Ria is standing near the hot frying pan in the kitchen.		
Sushant is playing with the stove lighter.		
Ramesh and his friends are running on the busy road.		
Seema is dressing Arpan's wound with a clean handkerchief.		



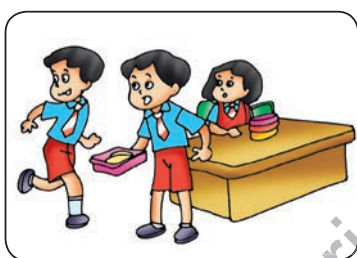
C. Match the following to complete the sentences.

- | | |
|--------------------------------------|---|
| 1. Be careful while using | a. always stand in a queue. |
| 2. Do not insert fingers in | b. to stop. |
| 3. Red light means | c. electric plugs. |
| 4. Do not run or slide down | d. sharp objects like knives, needles, etc. |
| 5. While waiting for your school bus | e. a staircase. |

D. Answer the following questions.

1. Why do accidents happen?
2. Write two safety rules we must follow at school.
3. Write two safety rules we must follow at home.
4. What is first aid?
5. What is a good touch?

E. Tick (✓) the actions that are safe to do and cross out (✗) the actions that are not safe.



Running in the class



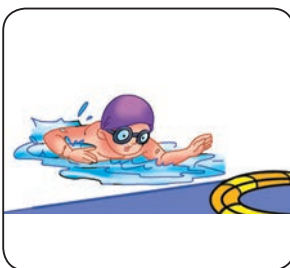
Playing on the road



Crossing the road
at zebra crossing



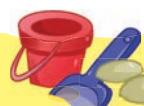
Playing in the kitchen



Swimming without
the rubber tube



Touching open
sockets and wires





Life Skills



A stranger is a person you have never met before. Not all strangers are good. They can harm you. Follow the safety rules to stay safe from strangers.



Do not accept any rides from strangers.



Do not walk in dark and lonely places.



Beware of strangers and do not go anywhere with them.



Do not accept any food or gifts from strangers.



Connect

Read and apply the safety rules we should follow while using a computer system.

Computer Studies

1. Do not eat or drink near the computer system.
2. Always walk in a queue to the computer lab.
3. Do not play with the wires attached to the computer system.
4. Do not use wet cloth to clean the computer system. Clean it with a dry cotton cloth.
5. Keep the computer system covered when not in use.



Project

A first aid kit should contain all the important things you may need in a medical emergency. Make one for your home.

- Choose a box that is big, light weight and easy to open.
- Put all the medical supplies inside.
- Keep a list of emergency phone numbers in the box.
- Write 'First Aid Kit' on the box.





A. Fill in the blanks.

1. People who are related to each other in a family are called _____.
2. Change can be difficult but we should _____ it and learn from it.
3. We use different means of transport depending on the _____ to be travelled.
4. _____ means to adjust ourselves to the changes happening in our surroundings.
5. The first bicycles invented had no _____.

B. Give one word for the following.

1. A person who manages home
2. Moving from one place to another to settle down there
3. To accept something enthusiastically
4. To adjust ourselves to the changes happening in our surroundings.

C. State whether true or false.

1. Joint families are big families.
2. Adapting means to adjust ourselves to the changes happening in our surroundings.
3. Nothing changes with time.
4. Vehicles that are used to travel on land are means of water transport.
5. We should keep a positive attitude towards changes.

D. Match the following.

- | | |
|-------------------|-----------------------------------|
| 1. Sibling | a. small family |
| 2. Cousin | b. a person who manages home |
| 3. Nuclear family | c. brother or sister |
| 4. Homemaker | d. water transport |
| 5. Ships | e. a child of one's uncle or aunt |



A. Fill in the blanks.

- _____ is India's famous celebrity chef.
- 'A quarter to' means _____ minutes are left for the next hour
- _____ is one of the first Indian female drivers to race in Euro JK series.
- In the olden days, _____ built obelisks, or tall monuments, to measure the shadows cast on the ground and thus calculate time.
- We should follow the safety rules to be safe and protect ourselves from _____ and getting _____.

B. Give one word for the following.

- An opinion about something/someone
- To say what will happen in the future
- A touch that makes you feel safe and good
- Touches that make you feel unsafe and uncomfortable
- To hold something or someone dear

C. Identify the following.



a. _____



b. _____



c. _____

D. Answer the following questions.

- What are stereotypes?
- What is an hourglass and how did it help to calculate time?
- Write two things we must keep in mind while giving first aid?

A. Match the following.

Column A	Column B
1. Relocation	a. A diagram that shows relationship between the family members.
2. 101	b. A form of clock which uses the Sun to tell time.
3. Sundial	c. Fire Brigade
4. 100	d. Moving from one place to another to settle down there
5. Family tree	e. Police Control Room

B. State whether true or false.

- Every member has different roles and responsibilities in the family.
- A hundred years is known as a millennium.
- We should always be punctual and value time.
- The invention of the wheel made transport difficult.
- Habits, choices, qualities and activities are decided by our gender.

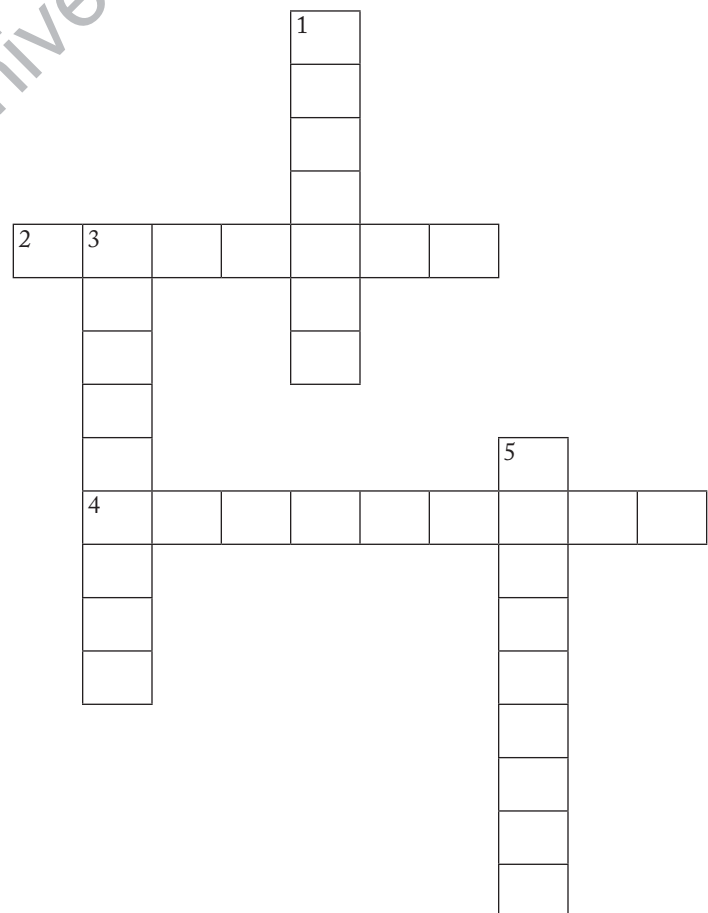
C. Solve the crossword using the given clues.

Across

- Look at someone or something with one's eyes wide open
- We can avoid these by following safety rules

Down

- Children of your uncles and aunts
- The attitude to accept the differences that exist among people
- The action of creating something new



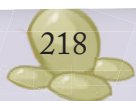
D. On which number will you call in case you require the following emergency services?

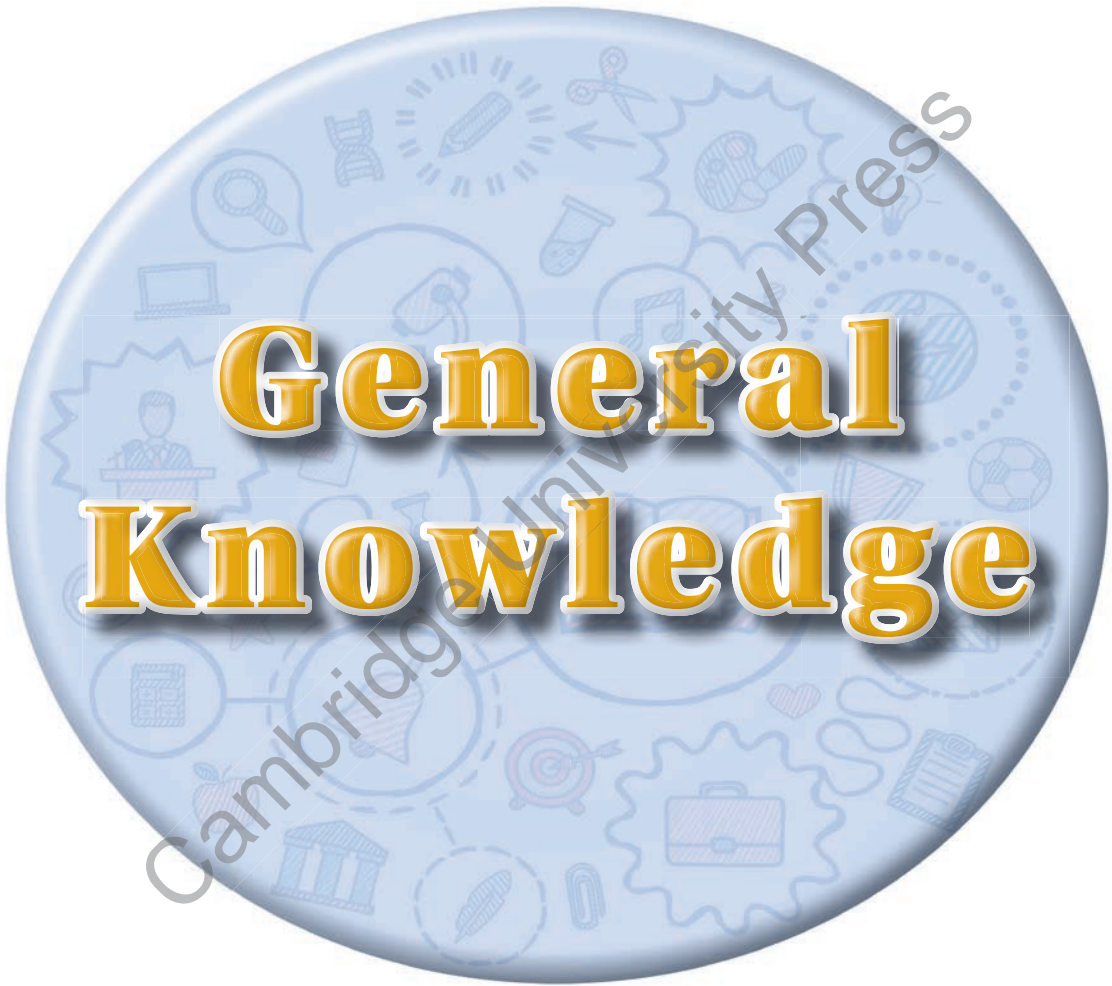
1. Police Control Room
2. Fire Brigade
3. Ambulance
4. Emergency Disaster Management

E. Answer the following questions.

1. How do families grow and change?
2. What helped in making the rail transport faster and better?
3. How did the Egyptians calculate time in olden days?
4. Write two things we must keep in mind while giving first aid?
5. What is a stereotype?

Cambridge University Press





General Knowledge

Cambridge University Press

1

FAMOUS INDIAN ACHIEVERS

Group these Indian achievers by colouring the boxes based on the codes given.



Bhagat Singh

☐


Virat Kohli

☐

Sportsperson - Blue

Scientist - Pink

Actor - Green

Freedom fighter - Brown

Author - Orange



Dr A. P. J.
Abdul Kalam

☐

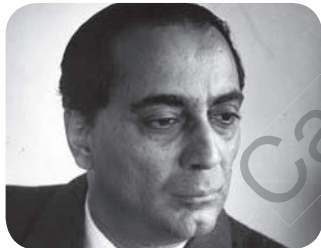

Saina
Nehwal

☐


Madhuri Dixit

☐


Vikram Seth

☐


Homi Jehangir
Bhabha

☐


Ruskin Bond

☐


Sarojini Naidu

☐


Amitabh
Bachchan

☐

Do You Know?

Sarojini Naidu, popularly known as the 'Nightingale of India', was the first Indian woman to become the governor of an Indian state.

Let Us Apply

Find out about the achievements of any famous personality who has inspired you and mention why.

BE QUICK!

Use a stopwatch and note how much time you take to answer the following questions. Your time starts now!

1. How many sides does a hexagon have?
2. What is the value of the digit 3 in the number 735?
3. An apple costs ₹ 23. How much would two apples cost?
4. I had ₹ 55.50 and I spent ₹ 32. How much money am I left with?
5. Round off the number 721 to the nearest hundred.
6. How many centimetres are there in 2 metres?
7. I am facing north. I turn to my right twice. Which direction am I facing now?
8. If you deduct one from the largest three-digit number, what number do you get?

Do You Know?

Zero is the only number which cannot be represented by a Roman numeral.

Let Us Apply

Collect information on some mathematical tricks that can be used to make calculations easier and quicker!

BODY AND ITS ORGANS

Solve the crossword by identifying the organs based on the clues given and the Help box.

Help box

KIDNEYS

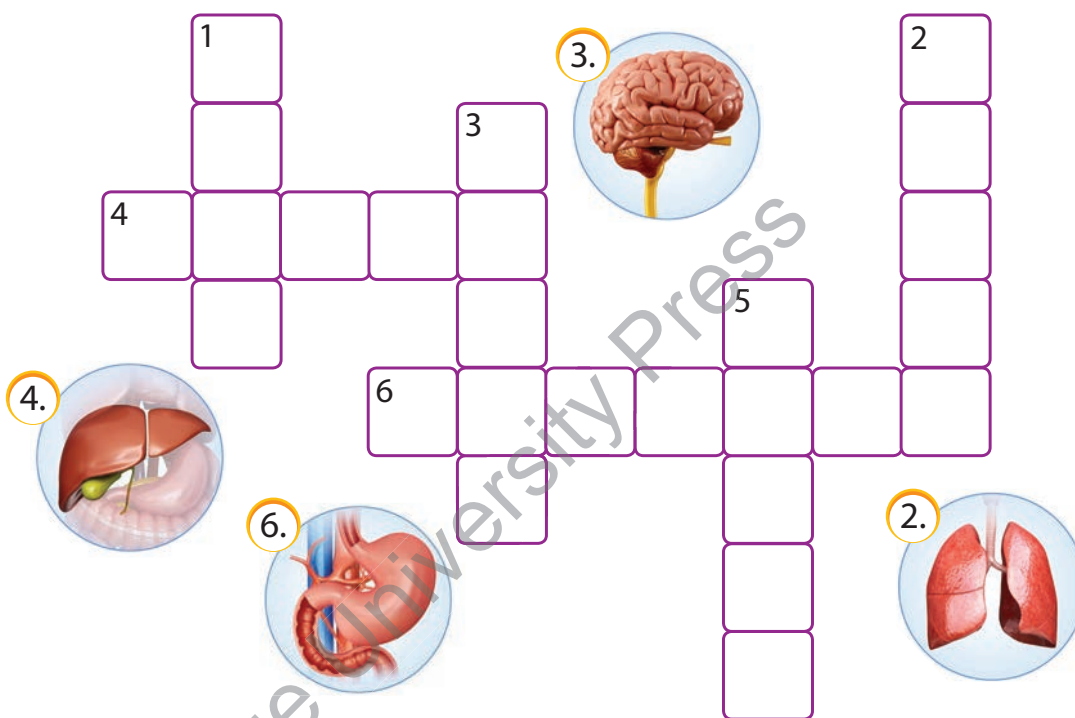
BRAIN

SKIN

HEART

LIVER

LUNGS



Across

4. The (5) is the largest organ of the body.
6. The (7) help in removing toxic wastes from our body.

Down

1. The (4) is an external organ.
2. The (5) help in supplying oxygen to the different body parts.
3. The (5) is body's control centre.
5. The (5) pumps blood throughout the body.

Do You Know?

The left side of your brain controls the right side of the body and the right side controls the left part of the body.

Let Us Connect

Deep breathing and Pranayama not only provide oxygen to the body but also relax the mind. Take out 10 minutes from your daily routine to do breathing exercises.

4

THEN AND NOW

Find the new names of these Indian cities and fill in the blanks to complete their names.

1. Bombay

 M A



2. Bangalore

B N L R

3. Orissa

O S



4. Madras

H N

5. Calcutta

O K T



6. Baroda

A D A

7. Pondicherry

P D H R



8. Banaras

A A S

Do You Know?

The city of Kochi was earlier known as Cochin.

Let Us Apply

Prepare a list of three more Indian cities whose names have been changed over time.

5

NATIONAL FLAGS

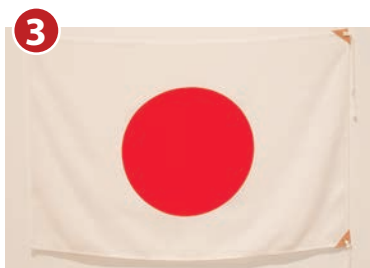
Unscramble the letters to name the country to which the flag belongs to.



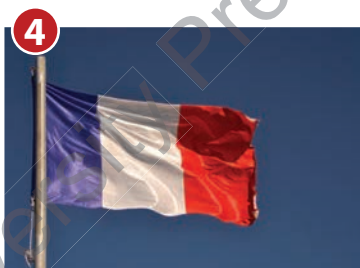
AACNDA



TIALRAUSA



NPAJA



ERNAFC



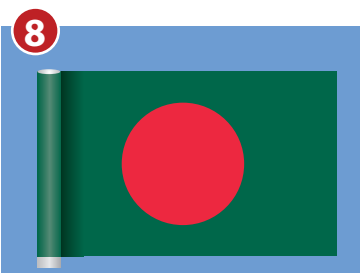
MGRNYEA



LITAY



ZBARIL



GDBEHASNAL











Do You Know?

The 50 stars in the national flag of the United States of America represent the 50 states in the country.

Let Us Apply

Each part of a national flag represents something. Find out what message do the different elements of our national flag give.

Identify the picture and join the words to form a new word.

- 1 JELLY +  =
- 2 BUTTER +  =
- 3 SUN +  =
- 4 PAN +  =
- 5  + BRUSH =
- 6  + LAND =
- 7 SNOW +  =
- 8 FOOT +  =
- 9  + BALL =
- 10  + POT =

Let Us Apply

Open compound nouns are written with a space (for example, washing machine) while closed compound nouns are written as one word (for example, toothpaste). Find an example of a hyphenated compound noun.

Let Us Connect

A compound noun is a word made by joining two or more words. Notice how we use many of these in our everyday speech.

RENOWNED INDIAN SCIENTISTS

Learn about the works of these famous Indian scientists. Use the **Help box** to write their names in the space provided.

Help box

Dr Salim Ali

Sir Chandrasekhara Venkata Raman

Sir Prafulla Chandra Roy

Dr A. P. J. Abdul Kalam

Srinivasa Ramanujan

A scientist and politician known for his role in the development of India's missile and nuclear weapons programs



A physicist who discovered Raman Effect and won a Nobel Prize for Physics in 1930



A naturalist, also known as the 'Birdman of India'



An educationist and chemist who founded India's first pharmaceutical company, Bengal Chemicals & Pharmaceuticals

A mathematician known for his contribution to theory of numbers, infinite series and continued fractions



Let Us Apply

Find four more discoveries and inventions done by Indians.






Do You Know?

The science of medicine, Ayurveda, is known to have developed in India thousands of years ago and has been mentioned in Atharva Veda.

USEFUL INSECTS

Insects may look scary or may not be liked by everyone but they play a very important role in keeping the garden healthy.

Match the insects in Column A with their correct description in Column B.

Column A		Column B
1.	 Ladybird	a. It not only helps in keeping the garden free from pests but also helps in keeping the mosquito population under control.
2.	 Ground beetle	b. Both the adults and the larvae of this insect feed on soft-bodied insects and aphids.
3.	 Dragonfly	c. It is a good pollinating insect and also provides us honey.
4.	 Wasp	d. This long-legged and rather large bug likes to feed on insects that are particularly harmful for vegetables.
5.	 Honeybee	e. The smaller ones of this insect are known to attack the eggs of all sorts of pests and are perhaps one of the best insects to provide an efficient garden pest control.

Let Us Apply

Which insect distinguishes itself from other harmful insects via its distinctive large, lace-like wings?

Do You Know?

Ants have two stomachs.

WINGED WONDERS

Unscramble the letters to name these feathered creatures.

1



The largest bird

T	S	I	O	C	R	H
---	---	---	---	---	---	---

2



The smallest bird

M	D	B	H	I	R	I	G	M	U	N
---	---	---	---	---	---	---	---	---	---	---

3



The tallest flying bird

U	S	R	S	A	A	E	N	R	C
---	---	---	---	---	---	---	---	---	---

4



The fastest flying bird

E	R	N	E	P	G	R	I	E
---	---	---	---	---	---	---	---	---

L	F	N	C	A	O
---	---	---	---	---	---

5



Bird with the longest wingspan

N	E	A	G	I	R	W	D	N
---	---	---	---	---	---	---	---	---

O	L	S	R	A	A	B	T	S
---	---	---	---	---	---	---	---	---

Do You Know?

The eyes of the woodcock are set so far back in its head that it has a 360 degree field of vision, enabling it to see all round.

Let Us Apply

Which bird is called the 'perfect mix of brains and beauty' and is the best talker?

BRUSH BEACONS

Identify these world-renowned painters based on their descriptions using the Help box.

1



A painter, scientist and an inventor; this famous artist is known for his painting, Mona Lisa:

2



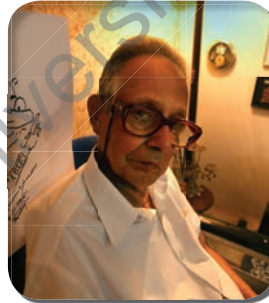
A globally acclaimed artist from India, often called the 'Picasso of India' and recipient of the Padma Shri, Padma Bhushan and Padma Vibhushan:

3



A sculptor, painter and an architect; this artist's epic painting of the ceiling in the Sistine Chapel makes him incomparable:

4



A beloved cartoonist and humorist who has delighted us for years with his cartoon character, Common Man:

5



In addition to being a painter, he was a poet and playwright who spent most of his life in France:

Help box

Michelangelo	Pablo Picasso
R. K. Laxman	Leonardo da Vinci
M. F. Hussain	

Do You Know?

No age is too young to excel in a field you love. Pablo Picasso was a child prodigy who could supposedly draw before he learnt to talk.

Let Us Connect

Take some time to think of the academic or co-curricular fields where your interest lies.

INDIAN MUSICIANS

Identify these famous Indian musicians using the **Help box**.

Help box

Rabindranath Tagore

Lata Mangeshkar

A. R. Rahman

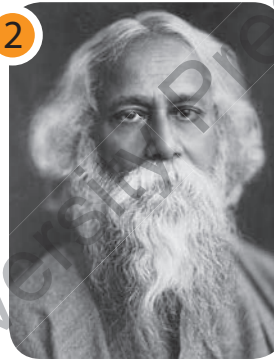
Pandit Ravi Shankar

1



He is a famous singer and music composer who has been awarded the Padma Shri and the Padma Bhushan, and has won 4 national awards and 2 Oscars.

2



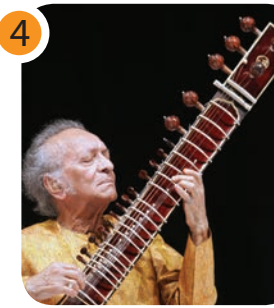
A recipient of Nobel Prize for his writing skills, this musician from Kolkata has over 2000 compositions to his credit.

3



She is credited with giving her voice to thousands of songs in 20 different Indian languages. Her voice is so powerful that it brought tears in the eyes of Pandit Jawaharlal Nehru.

4



A famous sitar player and recipient of the Bharat Ratna who was an inspiration for musicians of the west.

Do You Know?

Albert Einstein was a gifted musician who played the piano and violin.

Let Us Apply

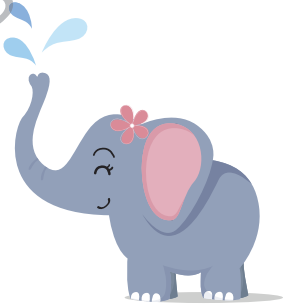
Music has often been used as a means to spread awareness among people and to raise funds to help people affected by adversities like war, natural calamities, etc. Find out examples of some such events organised in the past in our country.

HOMOPHONES

Choose the correct option to fill in the blanks.



- 1 The threatened to turn the boys into frogs.
a. witch b. which
- 2 We are happy that we live in a town with such wonderful
a. whether b. weather
- 3 The cat likes to drink milk from own bowl only.
a. its b. it's
- 4 A object possesses potential energy.
a. stationary b. stationery
- 5 The elephant is good to harm children.
a. too b. to
- 6 I am taller you.
a. than b. then
- 7 The of those beautiful trees refreshed us.
a. site b. sight
- 8 I hope doing the best you can.
a. you're b. your
- 9 One should not apply too suddenly while driving.
a. breaks b. brakes
- 10 Grandma's are very interesting.
a. tales b. tails



Do You Know?

Apostrophe marks are not used with English pronouns.

Let Us Connect

The often confused words given above are homophones, that is, words with the same pronunciation but different meanings. Are there any homophones that you get confused with?

CREATE YOUR OWN DICTIONARY

In the word grid, find words which have the given meanings. Arrange them as they would appear in a dictionary.

1. Possessing extreme energy –
2. Flap rapidly –
3. Physically weak –
4. Hold tightly –
5. Having the means or skill to do something –
6. Make small folds or wrinkles in something –
7. The process of rotting –
8. A light sleep –
9. Stay away from –
10. Strong desire to achieve something –

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

Dictionary sequence of words

Do You Know?

Robert Cawdrey's *Table Alphabeticall*, published in 1604, was the first single-language English dictionary ever published.

Let Us Apply

While reading a book, it is best to underline the words you find difficult and try to guess their meaning from the context. Once you have the time, you should look up their meaning in a dictionary and note them down. This way, you will not lose interest in reading and also increase your word bank.

SCREEN GAMES

Given below are some effects of playing video games. Highlight the positive effects in green and negative effects in red.

Physical

- Loss of sleep
- Increased hand-eye coordination
- Loss of appetite
- Obesity
- Weakened eyesight

Psychological

- Increased aggression because of violent games
- Incorrect values taught
- Quicker decision-making

Social

- Decreased social contact
- Less concentration in classroom
- Limited topics to talk about
- Some games teach teamwork

Do You Know?

These days, many games are available for free download on phones. These are not only fun to play but enhance knowledge and vocabulary too. For example, the popular game, Angry Birds is a brain booster and also teaches scientific concepts like laws of gravity, momentum, etc.

Let Us Connect

Revisit the points listed above and weigh if playing video games has more positive or negative effects.

ON THE LINE

Given below are some situations you may encounter while using a phone. Choose the course of action you find the most appropriate.



1. You need to take down a message for a call that came in your father's absence. Which questions are unnecessary? The caller's:

a. address ☐ b. name ☐ c. message ☐ d. favourite colour ☐

2. For the following situations, choose the suitable responses from the bulleted list. Write the letter in the box provided.

- a. Your teacher calls home to complain to your father about your behaviour and you pick up the phone.
b. The caller is asking for someone who does not live at your home.
c. Someone is repeatedly making blank calls at your home.
d. Someone unknown to you starts talking to you and asks questions like your name, school, address, etc.

- I do not wish to talk to you. Please put down the phone. ☐
- I am sorry but you seem to have the wrong number. ☐
- Please stop calling or we will have to complain to the police. ☐
- I am sorry you had to call because of me. I will just get him on the line. ☐

3. You call your favourite pizza joint to order a home delivery. Sequence the sentences in the order you will speak to them on the phone.

- a. Could you let me know about the available choices? ☐
b. Thanks a lot. ☐
c. Thanks. I will go with the XYZ pizza and drink combination. ☐
d. I wish to order for a meal combo. ☐
e. How long would it take to be delivered? ☐
f. Hi. Is this ABC pizza? ☐

Do You Know?

Alexander Graham Bell invented the telephone.

Let Us Connect

Interviews with technology giants such as Bill Gates and Steve Jobs revealed that they are not in favour of giving phones to young children. Do you agree? How much time do you spend on the phone every day? Why?

WHAT'S WRONG?

Look at the following pictures and identify what's wrong in each of them.



Do You Know?

The left side of our brain controls logical thinking and reasoning.

Let Us Apply

Draw a picnic scene with five mistakes in it. Ask your friends to spot them.

MAGIC SQUARE

Fill the number grid with the numbers 1 and 3 such that the total is 15 when the numbers are added horizontally, vertically and diagonally. No number should be repeated.

1

8		6
	5	7
4	9	2

Fill the number grid with the numbers 1, 2 and 3 such that the total is 15 when the numbers are added horizontally, vertically and diagonally. No number should be repeated.

2

6		8
7	5	
	9	4

Fill the number grid with the numbers 2, 4, 5 and 8 such that the total is 34 when the numbers are added horizontally, vertically and diagonally. No number should be repeated.

3

	11	14	1
13		7	12
3	16	9	6
10			15

Do You Know?

$$111,111,111 \times 111,111,111 = 12,345,678,987,654,321$$

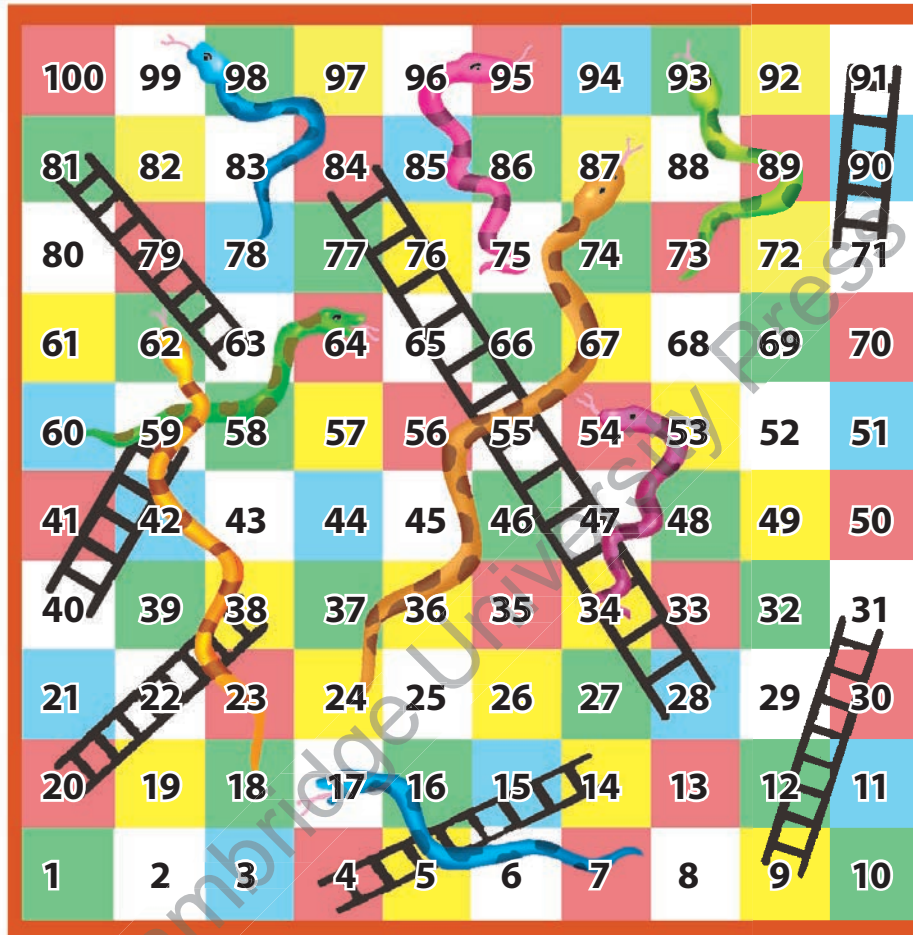
Let Us Apply

By what number should you multiply 21,978 so that the product comes as its reverse, 87,912?



WHAT'S THE NUMBER?

Be quick to guess where you will reach on the board when you roll the dice.



- 1 You are at 61. You roll the dice and get 3.
- 2 You are at 16. You roll the dice and get 4.
- 3 You are at 39. You roll the dice and get 5.
- 4 You are at 69. You roll the dice and get 2.
- 5 You are at 96. What number do you need to win the game?

Do You Know?

Jigsaw puzzles were invented by the English mapmaker and geographer John Spilsbury in 1760.

Let Us Apply

Compete with your friends to see who solves the Rubik's Cube first.



A. Tick (✓) the correct sentences and cross out (X) the incorrect sentences.

1. The heart pumps the blood throughout the body.
2. A naturalist, Dr. Salim Ali is known as the 'Birdman of India'.
3. Wasp is a good pollinating insect and also provides us honey.
4. Hummingbird is the smallest bird.
5. Banaras was earlier known as Varanasi.

B. Fill in the blanks using the help box.

Help box

Dr. A.P.J. Abdul Kalam	Saina Nehwal	Bhagat Singh
Sir Chandrasekhara Venkata Raman	Madras	

1. _____ was a physicist who discovered Raman Effect and won a Nobel Prize for Physics in 1930.
2. Chennai was earlier known as _____.
3. A scientist and politician, _____ known for his role in the development of India's missile and nuclear weapons programs.
4. _____ was a revolutionary who fought for Indian Independence.
5. _____ is a famous Indian sportsperson.

C. Write true or false.

1. The liver helps in removing toxic wastes from our body.
2. Ground beetle is a long-legged, large bug which likes to feed on insects that are particularly harmful for vegetables.
3. Sarus crane is the tallest flying bird.
4. Ruskin Bond and Vikram Seth are famous Indian authors.
5. The heart is body's control centre.

D. Match the following.

1.



2.



3.



4.



a. the largest bird

b. Bangladesh

c. Japan

d. the fastest flying bird



A. Tick (✓) the correct sentences and cross out (X) the incorrect sentences.

1. Robert Cawdrey's Table *Alphabetically*, published in 1604, was the first single-language English dictionary ever published.
2. Some of the negative effects of playing video games include loss of appetite and decreased social contact.
3. Loss of sleep is a positive effect of playing video games excessively.
4. A hexagon has 8 sides.
5. In a game of snakes and ladders, you are at number 96 so you need number 6 to win.

B. Fill in the blanks using the help box.

Help box

Leonardo Da Vinci
R.K. Laxman

Rabindranath Tagore
A.R. Rahman

M.F. Hussain

1. _____ was a beloved cartoonist and humourist who has delighted us for years with his cartoon character, Common Man.
2. A recipient of Nobel Prize for his writing skills, _____, a musician from Kolkata has over 2000 compositions to his credit.
3. _____ is a famous singer and music composer who has been awarded the Padma Shri and Padma Bhushan, and has won 4 national awards and 2 Oscars.
4. A globally acclaimed artist from India, _____ is often called the 'Picasso of India' and recipient of the Padma Shri, Padma Bhushan and Padma Vibhushan.
5. A painter, scientist and an inventor _____ is known for his painting, Mona Lisa.

C. Write true or false.

1. One should not apply brakes too suddenly while driving.
2. Ambition means strong desire to achieve something.
3. Apostrophe marks are used with English pronouns.
4. I am facing north. I turn to my right twice. Now I am facing south.
5. One of the positive effects of playing video games is quicker decision-making.

Sample Test Paper

A. Tick (✓) the correct sentences and cross out (X) the incorrect sentences.

1. Madhuri Dixit and Amitabh Bachchan are famous Indian actors.
2. The old name for the city of Kolkata was Calcutta.
3. Dragon fly not only helps in keeping the garden free from pests but also helps in keeping the mosquito population under control.
4. A recipient of Nobel Prize for his writing skills, Rabindranath Tagore from Kolkata has over 2000 compositions to his credit.
5. Grandma's tails are very interesting to listen to.

B. Solve the crossword using the given clues.

1.



a. Ruskin Bond

2.



b. National flag of Canada

3.



c. Dr. A.P. J. Abdul Kalam

4.



d. National flag of France

5.



e. M.F. Hussain


C. Give one word answer for the following.

1. Having the means or skills to do something
2. Any one negative effect of playing video games
3. Any one positive effect of playing video games
4. The bird with longest wingspan
5. New name of city of Bombay

D. Unscramble and write the answers of the following.

1. The VERLI is the largest organ in the body.
2. ASPW are perhaps one of the best insects to provide an efficient garden pest control.
3. The largest bird in the world is TICRHOS.
4. A NAORYSTATI object possesses potential energy.
5. The meaning of ZODE is a light sleep.

E. Correct the following sentences.

1. JELLY +  together forms jellygill.
2. One of the negative effects of playing video games is increase in social contact.
3. The lung is an external organ.
4. A naturalist Dr. Salim Ali is also known as 'Birdman of Delhi'.
5. The tallest flying bird is the hummingbird.

Notes

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