- one who feeds on fruits: fruitarian
- one who writes novels: novelist
- one who writes poetry: poet
- a lover of animals: zoophilist

Let's work together:

Get into groups. Discuss among yourselves and write at least 15 words that substitute certain groups of words. Write those words and the group of words that they substitute on a chart paper. Display the chart in the classroom.

Unit II

Let's continue:

Father Wolf ran out a few paces and heard Sher Khan muttering and mumbling savagely as he tumbled about in the scrub. "The fool has had no more sense than to jump at a woodcutter's campfire, and he has burnt his feet," said Father Wolf with a grunt.

"Something is coming uphill," said Mother Wolf, twitching one ear.

The bushes **rustled** a little, and Father Wolf got ready to leap. Then, if you had been watching, you would have seen the most wonderful thing in the world.

"Man!" he snapped. "A man's cub! Look!"

Directly in front of him, holding on by a low branch, stood a brown baby who could just walk. He looked up into Father Wolf's face, and laughed.

"Is that a man's cub?" said Mother Wolf. "I have never seen one. Bring it here."

"I have heard now and again of such a thing, but never in our pack or in my time," said Father Wolf. "He is altogether without hair!"

The moonlight was blocked out of the mouth of the cave, for Sher Khan's great square head and shoulders were **thrust** into the entrance. "What does Sher Khan need?" said Father Wolf. "A man's cub went this way. Its parents have run off," demanded Sher Khan.

"The wolves are free people," said Father Wolf. "They take orders from the head of the pack, and not any from striped animal. The man's cub is ours."

The tiger's roar filled the cave with thunder. Mother Wolf shook herself clear off the cubs and sprang forward. Her eyes were like two green moons in the darkness, facing the blazing eyes of the tiger. Sher Khan might have faced Father Wolf, but he could not stand up against Mother Wolf. He knew that where she stood she had all the advantage of the ground, and would fight to death. So he backed out of the cave mouth, growling.



Sher Khan speaks this much truth," said Father Wolf. "The cub must be shown to the pack. Will you still keep him?"

"Assuredly I will keep him," said Mother Wolf. "Lie still little frog. O you, Mowgli—for Mowgli, the Frog, I will call you. The time will come when you will hunt Sher Khan as he has hunted you."

Akela, the great grey lone wolf, who led all the pack by strength and cunning, lay out at full length on his rock. "Who speaks for this cub?" said Akela. "Among the free people who speaks"? There was no answer. Mother Wolf got ready for what she knew would be her last fight if things came to fighting. Then the only other creature, who is allowed at the Pack Council, was Baloo the bear. He rose upon his head and grunted:

"I speak for the man's cub. Let him run with the pack, and be entered with the others. I myself will teach him."

"We need yet another," said Akela. "Baloo has spoken, and he is our teacher for the young cubs. Who speaks beside Baloo?"

A black shadow dropped down into the circle. It was Bagheera, the Black Panther. Everyone knew Bagheera and nobody dared to cross his path, for he was as cunning as a jackal, as bold as the buffalo and as **reckless** as a wounded elephant. But he had a voice as soft as wild honey dripping from a tree.

"To kill a little cub is shame. Besides, he may make better sport for you when he is grown. Baloo has spoken on his behalf," said Bagheera.

"Men and their cubs are very wise. He may be a help in time," said Akela.

"Truly, a help in time of need; for none can hope to lead the pack forever," said Bagheera.

"Take him away," Akela said to Father Wolf, "and train him as befits one of the free people."

And that is how Mowgli was entered into the Seeonee wolf pack.

Word Nest

muttering: to say something in a quiet voice that is difficult to hear; savagely: wildly; rustled: light dry sound of leaves; snapped: said something angrily; thrust: forced into; assuredly: with guarantee reckless: rash

Let's do:

Activity 4

Which are the two animals that supported the wolf family to rear up Mowgli? Choose the correct option:

(a) Sher Khan and Tabaqui (b) Baloo and Bagheera (c) Tabaqui and Akela

Complete the following chart with information from the text:

Cause	Effect
The tiger jumped into the camp fire.	
	Moonlight was blocked at the mouth of the cave.
Mother Wolf would fight to the death.	

Activity 6

Complete the followings sentences:

(a)	Father Wolf heard Sher Khan
(b)	Sher Khan was unable to face the challenge of Mother Wolf because
(c)	The voice of Bagheera was
(H)	When the man-cub will grow up

Activity 7

Answer the following questions by referring to the text:

- (a) What was the 'most wonderful thing in the world'?
- (b) Describe the 'brown baby' as he came to the wolves' den.
- (c) Where were the parents of the 'man cub'?
- (d) Why did Sher Khan come to the den of the wolves?
- (e) Who was Akela? Give a description of Akela.
- (f) Why do you think Akela wanted the 'man cub' to be in the wolf family?

Activity 8

The following statements summarize the story of Mowgli. But they are not in order. Rearrange the statements. Put the numbers in the given brackets.

- (a) Mowgli was included in the wolf family. ()
- (b) Father Wolf was surprised to find a little boy in front of their den. ()

- (c) Bagheera also supported the demand of the Father Wolf. ()
- (d) Sher Khan came to the den to hunt the boy. ()
- (e) Baloo gave his support to the wolf family. ()
- (f) Father Wolf and Mother Wolf refused to part with the boy. ()

Let's talk:

Suppose you are the writer of the story 'Mowgli Among the Wolves'.

- Tell your friends what other title you would have given to the story
- Tell the class what should be the ending of the story

Activity 9

Read units I and II and identify the words used in the text whose meanings are given below:

(a) Baby of wolves (b) doorway (c) desire to hurt (d) speaking in a way that is difficult to hear

Let's learn:

Study the following sentence carefully:

- He was as cunning as a jackal, as bold as the buffalo and as reckless as a wounded elephant.
- But he had a voice as soft as wild honey dripping from a tree.

In these sentences, the coloured words indicate comparisons. In English, we use adjectives not only for qualifying the noun, but also to compare one noun or pronoun with the other. In the above sentences, the qualities of Bagheera are compared with a jackal, a buffalo, a wounded elephant and honey dripping from a tree.

Let us take some more examples of comparisons:

- as cool as cucumber
- as soft as wool
- as red as rose
- as white as snow
- as hard as stone

- as busy as a bee
- as dry as a bone

These comparisons are known as Similes.

Activity 10

Make sentences with the following similes:

as white as snow; as red as rose; as brave as a lion; as big as an elephant; as free as a bird; as easy as A-B-C

Let's learn:

Study the following sentences taken from the text:

- He has burnt his feet.
- Baloo has spoken on his behalf
- Its parents have run off.

In each of the above sentences **have** or **has** is associated with the past participle of the verbs 'burn', 'speak' and 'run'. In English, such structures are called **Present Perfect tense**. In other words, present perfect tense can be formed with the following verb structure:

Have/has + past participle form of the verb.

Present Perfect tense indicates that the action has just been completed, but the effect of the action is still present.

Let us take some more examples:

- ❖ I have just completed my task.
- Meena has just reached our house.
- Imran has taken all his books to the school.
- My dog has eaten its food.
- We have won the match.

Underline the Present Perfect tense in the following sentences:

- (a) They have worked till sunset.
- (b) He has gone to sleep.
- (c) The actor has received the award.
- (d) Sher Khan and Tabaqui have been unsuccessful.
- (e) Baloo has supported the wolves.

Activity 12

Make sentences with the following words using the Present Perfect tense of the verb forms:

Finish, hear, lead, take, come, show, shine

Let's learn:

Now look at the verbs in these sentences. Do you find any difference with the Present Perfect forms?

- Tabaqui sat still, rejoicing in the mischief that he had made.
- The actor had been to Kashmir.
- She had gone to work.
- Ramu had not eaten for many days.
- Sher Khan had jumped into camp fire.

In each of these sentences 'had' is used with the past participle form [or third form of the verb] of the following verbs: 'be', 'go', 'eat' and 'jump'. The verb structures are in Past Perfect forms. Past Perfect tense is used when the action was completed a long time ago but the effect of the action remained for some time in the past.

Let's do:

Activity 13

Make sentences with the Past Perfect tense of the following verbs:

run, begin, call, watch, play, drop, burn

Choose the correct option of the given verb forms:

- (a) The jackal found only a bone to eat as the wolves [eats/had eaten/have eaten] everything.
- (b) Father Wolf [wake/ have woken/had woken] up at seven in the evening.
- (c) Bagheera and Baloo [had supported/support/has supported] the demand of the Wolf family.
- (d) I [have finished/finishes/finish] my task well before the scheduled time.
- (e) Mary Kom [win/have won/had won] a Bronze medal in the London Olympics.

Activity 15

Fill in the blanks with the correct form of the verbs given in brackets:

Mowgli's parents	[run] away	leaving the I	little baby.	Sher Khan
[come] to the ca	ve of the wolve	es in search (of Mowgli.	The wolves
[want] to rear up Mov	vgli. Bagheera ai	nd Baloo	[support]	the demand
of the wolves. Finally, Akela	agreed.			

Activity 16

Write a short story [in about seventy words] using the following points. Give a title to the story:

A hare challenges a tortoise to a race—the race starts—hare takes rest on the way—falls asleep—the tortoise reaches the goal first.

Activity 17

Suppose you have visited the zoo with your parents. Write a letter to your friend telling him/her about your experience in the zoo. You can use the following hints:

Wild animals and birds you saw—their habits—your feelings—should they be kept in a zoo or in a reserve forest

Let's work together:

Choose dialogues from the story. Arrange them in order. Work in groups and turn the conversations into a short play. Now act out the short play in your class.

Lesson: 8

The Story of Proserpine

Let's start:

The story of Proserpine and Pluto is a mythological story that dates back to ancient Roman civilization. A similar story can be traced in ancient Greek mythology also. Handed down from generation to generation, myth is an imaginary narrative that tries to explain nature and its mysteries.

Let's share:

- (a) Can you name a mythological story that you have read or heard? Ask your friend also to name one such story.
- (b) Suppose you have access to a children's library. Which of the following would you like to read first and why?
 - (i) a fairy tale
 - (ii) a detective story
 - (iii) a story by a famous writer
 - (iv) a mythological story
 - (v) a story based on the life of a great person

Discuss your choice with your friend.

Let's read:

Unit I

Long, long ago, in the beautiful island of Sicily, there lived a goddess called Ceres. She was the goddess of crops, plants and trees; so on her depended the health and happiness of all the people of this wide world.

Ceres had a fair daughter, Proserpine, whom she loved more than her life. Proserpine was the brightest and loveliest of all girls. Her cheeks were rosy and beautiful like the apple **blossoms** in spring. Her eyes were as blue as the sky in April. Her long golden curls were as bright as the sunlight in springtime. All the

radiant loveliness of springtime seemed to have taken the form of this fair maiden. Everybody said, "She is the Spring." Proserpine helped her mother in the fields. With her young companions she danced and sang, while gathering flowers.

Far down the earth, there lived dark Pluto, king of the land of the dead. He had often asked some goddess to come and live with him, but no goddess was willing to live among the dead. So Pluto was very lonely.

One day Pluto came to earth and was driving along in his swift chariot.

Behind some bushes he heard voices and laughter. He was curious. He stopped his chariot, and walked to the bushes. There he saw Proserpine laughing and playing with her companions who formed a circle round her.

Pluto was charmed at the sight of the lovely maiden. He looked at Proserpine and thought, "I must make her my queen. Her bright face will make even my dark kingdom look bright and beautiful." But he knew that it would be useless to ask the maiden to be his queen. So he stepped into the circle and carried her to his chariot. The companions of Proserpine were frightened and fled in all directions. Pluto departed with the captive maiden in his chariot. He drove very fast. He was afraid that Proserpine's mother Ceres would soon appear there in search of her daughter.

After some time Pluto came to the bank of a river. The river was full to the **brim** and he could not drive through the water. To go in another direction would mean loss of time. So with his **sceptre** he struck the ground. The ground opened at once, and chariot, horses and all **plunged** into the darkness below. Just as the ground was closing over her, Proserpine **seized** her **girdle** and threw it far out into the river. She thought that the girdle might reach Ceres, and her mother would be able to trace her lost daughter.

Word Nest

Sicily: an island in the Mediterranean Sea, to the south of Italy; blossoms: flowers; radiant: shining; departed: left; captive: imprisoned or kept in bondag; brim: the top edge of a cup, glass, bowl etc; sceptre: an ornamental staff or baton indicating a King's power; plunged: jumped into or dived; seized: caught hold of; girdle: belt or waistband

Let's do:

Activity 1

Fill in the blanks with suitable words from the passage above:

(a)	Goddess lived in the beautiful island of				
(b)	was the	e king of the land of the	e		
(c)	Everyone said that	was the	herself.		
(d)	Pluto wasv	vhen he saw	·		
(e)	Pluto struck the ground	d with his	_ and it	_instantly.	

Activity 2

Identify which of the following statements are True and which are False. Give a supporting statement for each of your answers.

- (a) Ceres had little role to play in the lives of the people on earth.
- (b) Ceres was extremely fond of her fair daughter.
- (c) When Pluto first saw Proserpine, she was helping her mother in the field.
- (d) Pluto thought Proserpine's beauty would brighten his dark kingdom.
- (e) Proserpine threw away her girdle because she did not require it in Pluto's kingdom.

Fill up the following chart with information from the text:

Cause	Effect
1.	Pluto led a lonely life.
Pluto heard voices and laughter behind some bushes	
3.	The companions of Proserpine got frightened and ran away.
4.	Pluto drove his chariot very fast.
5. The river was full to the brim.	

Activity 4

Some words or phrases are given below. Find words from the text having meanings similar to these:

- (a) a young unmarried girl:
- (b) a horse driven carriage or car:
- (c) eager to know:
- (d) flowers:
- (e) grasped or caught tightly:
- (f) a waistband:

Activity 5

Fill in the blanks with suitable words from the list below. Change the form of the words where necessary. There are some extra words. (One is done for you):

plunged, departed, trace, lovely, bank, drove, curls

(a)	The rose is said to be the	iovellest of all flowers.
(b)	Kolkata is situated on the	of river Hooghly.
(c)	I could not	he advertisement in yesterday's newspaper
(d)	When it rains,	a car is not easy.
(e)	Please note the time of hi	s from office last Saturday.

Let's continue:

Unit II

In the evening Ceres came back home. She did not find her daughter who usually came running to meet her. This had never happened before. Ceres was greatly surprised and a little worried. She searched for her in all the rooms, but they were all empty. Then she lighted a torch from the fires of a volcano and wandered about the fields and valleys looking for Proserpine. The search went on for the whole night, and in the morning her grief knew no bounds.

That very day Ceres began a long journey. She wandered over land and sea, over hills and valleys for days together. She neglected all her work on earth. As a result the crops failed everywhere. The ground became dry and barren. Famine broke out all over the world. It seemed that the earth grieved with the grieving mother.

The people were **starving**. They came to Ceres and **implored** her to bring back plenty, and save their lives. Ceres lifted her sad face, weary with **ceaseless** wandering,



and said, "I cannot take care of the earth until I get back my lost daughter."

So the people thought of praying to Jupiter who was the king of the gods. And to Jupiter they sent their prayer to bring Proserpine back to her mother. They were sadly in need of Ceres's help.

Ceres wandered all over the earth and came at last to Sicily. One day when she was passing by a river, waves carried something to her feet. She picked up the object and saw that it was the girdle of her daughter.

Ceres looked at it carefully again and again. Tears filled her eyes and streamed

down her pale cheeks. She suddenly seemed to hear a voice coming from a nearby fountain. The voice grew clearer every moment and it said, "Ceres, great mother of the earth, I am the **nymph** of the fountain. I live in the dark depths of the earth. And I have seen your daughter on a throne in the kingdom of Pluto. Her cheeks were pale and her eyes were heavy with weeping. Go to Jupiter and pray to him to send her back to you. Do not grieve any more."

With these words the nymph seemed to leap towards the sun and the sky.

Ceres now came to see Jupiter and said, "I have found the place where my daughter is. Please give her back to me and I shall once more make the earth as fruitful and green as it was."

Jupiter was deeply moved by the mother's sorrow, and also by the prayers of the people on the earth. He thought for a while and said, "Proserpine may return to earth if she has not tasted any food in Pluto's kingdom."

Ceres quickly **descended** into the land of the dead. But alas! That very day Proserpine had eaten six **pomegranate** seeds, and for every one of those seeds she was **destined** each year to spend a month in the **realm** of the dead.

So for six month every year Proserpine would come back to her mother. When she did so, flowers bloomed, birds sang and the earth smiled to welcome the young queen. But when the time came for Proserpine to rejoin Pluto in his dark underground kingdom, Ceres would begin to grieve for six months. The earth too, would look sad and gloomy. The trees would shed their leaves. The flowers, too, would hide underground, until they heard again the gentle footfall of Proserpine returning to earth.

Word Nest

neglected: omitted; **starving**: being without food for a long time; **implored**: begged; **ceaseless**: unending; **nymph**: mythological goddess of trees, rivers, mountains etc.; **descended**: went down; **pomegranate**: a type of fruit with many seeds; **destined**: fixed beforehand; **realm**: kingdom; **gloomy**: dark

Let's do:

Activity 6

Complete the following sentences with information from the text:

- (a) From the fires of a volcano .
- (b) People thought of praying to Jupiter because ______.
- (c) The nymph of the fountain lived .
- (d) Jupiter said that Proserpine might return to earth if . .
- (e) Ceres would begin to grieve for six months when _____.

Activity 7

Fill up the following chart with information from the text:

WHO	DID WHAT	WHEN
	searched for Proserpine in all the rooms	
People		they were starving
	found the girdle of her daughter	
	had eaten six pomegranate seeds	
The earth		Proserpine would come back to her mother for six months.

Activity 8

Answer the following questions:

- (a) Why did Ceres feel very sad in the morning?
- (b) Why was there a severe famine all over the world?
- (c) Briefly narrate what the nymph of the fountain told Ceres.
- (d) Why was Proserpine bound to live for six months in the underground kingdom?

Activity 9

Rearrange the following sentences and make a paragraph on how Proserpine returned from the underworld to her mother on earth:

(a) Suddenly one day Ceres picked up Proserpine's girdle by the riverside.

- (b) Ceres visited Jupiter and sought his help to get back her daughter.
- (c) Pluto took away the beautiful maiden Proserpine to his underground kingdom.
- (d) Ceres went underground to find that Proserpine had already eaten six pomegranate seeds there.
- (e) Ceres, her mother, was much surprised not to find her at home in the evening.
- (f) The nymph of the fountain told Ceres about her daughter's whereabouts.
- (g) Jupiter said that Proserpine might return to earth if she had not eaten any food in the land of the dead.
- (h) The mother searched for her daughter everywhere in vain.
- (i) Proserpine was destined to spend six months every year in Pluto's underworld and the remaining six months on earth with her mother.

Activity 10 Match the words in Column A with their meanings in Column B:

Α	В
(1) realm	(a) deep sorrow ()
(2) ceaseless	(b) dull or whitish in colour ()
(3) pale	(c) dark or depressing ()
(4) grief	(d) begged ()
(5) implored	(e) kingdom ()
(6) gloomy	(f) endless ()

Activity 11

Make sentences with the following pairs of words to show the difference in their meanings:

a)	meet:	b)	wandered:	c)	whole:	d)	leap
	meat:		wondered:		hole:		lip:

e) cease: f) throne: g) prey: h) tested: seize: thrown: pray: tasted:

Let's talk:

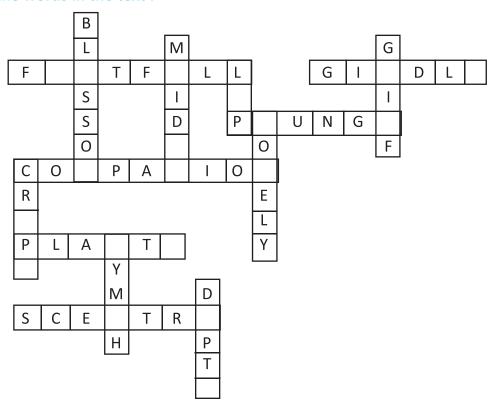
Imagine yourselves to be the characters of the story. Pair up with your friend and start a conversation on any one of the following topics:

- between the river nymph and Ceres, after she finds Proserpine's girdle
- between Ceres and Jupiter, when Ceres meets the latter for help
- between Ceres and Proserpine, when the girl returns to earth for six months

Let's do:

Activity 12

Solve the word puzzle by putting suitable letters in the blank boxes. You will find the words in the text:



Let's learn:

Study the following sentences from the text:

- I must make her my queen.
- ❖ Her bright face will make even my dark kingdom look bright and beautiful.
- She thought that the girdle might reach Ceres.
- Her mother would be able to trace her lost daughter.
- Proserpine may return to earth.
- He could not drive through the water.

In the above sentences the words *must, will, might, would, may* and *could not* are used to indicate emphasis, possibility, ability, permission, request, wish, probability, inability, impossibility, etc. These words are known as modals.

It is important to note that several modals can be used to express the same mood or mode. Most of the modals do not express any sure fact. **Modals are followed by the first form of a verb.**

Now study the following table carefully:

Functions	Modals
Expressing ability	can , could
Expressing possibility	can, could, may, might
Expressing duty or emphasis	should ,must
Making a request	would , could , will
Asking for permission	may , shall , can ,could
Giving suggestion	should ,can ,could

Now study the table showing the modals and their negative forms:

Modals	Negative forms of Modals
can	cannot / can't
could	could not / couldn't
may	may not
might	might not
will	will not / won't
would	would not / wouldn't
shall	shall not / shan't
should	should not / shouldn't
must	must not

Let's do:

Activity 13 (a)

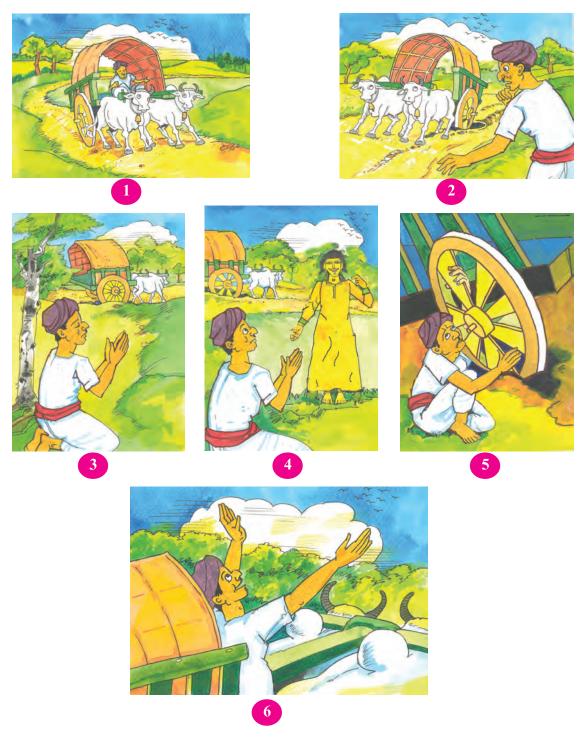
Fill in the blanks with appropriate modals from the list given below. One modal may be used more than once.

		may, would, will	, should, must, can, could	
(a)	Ι	finish my home\	work before going to school.	
(b)	Не	give you a s	olution.	
(c)	Rajesh pl	anned that he	make a kitchen garde	en.
(d)	He	help me	if he wished.	
(e)	We	save trees	for a better future.	
(f)		•	all the students	pass the
, ,	examinat			
			their teachers with respect.	
(h)	lt	rain today.		
		Ac	tivity 13 (b)	
n th	e blanks v	with the negative f	forms of appropriate modal	S:

Fill in the blanks with the negati

(a)	I help yo	u. I am sorry.	
(b)	Your bed is ready	you lie down now?	
(c)	One	go for swimming when the sea is	rough.
(d)	The student got po	or marks because he	_ solve a few sums
(e)	They	be able to supply the materials	s on time.

Study the following set of pictures carefully:



Activity 14 (a)

Now match the clues with the pictures. Write the matching picture numbers in the brackets.

- God appeared in the disguise of a wise man and asked the cart-man to put his shoulders to the wheel. ()
- The cart moved. ()
- ❖ A cart-man driving a cart. ()
- He started praying to God. ()
- The wheels sank in mud. ()
- Cart-man pulled the wheel with great effort. ()

Activity 14 (b)

Write a story based on the above clues in about seventy words. Add a title to your story.

Activity 15

In each group there are three sentences. One of them has some grammatical errors. Identify that sentence and underline it. One is done for you:

- Group A: (i) Ranit has taken my pen.
 - (ii) This house is our.
 - (iii) They live happily in their village.
- Group B: (i) I always enjoy reading children's books.
 - (ii) Sunita studies in Nivedita Girl's High School.
 - (iii) The children is crying.
- Group C: (i) The bird on the cage has flew away.
 - (ii) Take out that book from the shelf.
 - (iii) The man arrived at the station on time.

- Group D: (i) She left the place quietly.
 - (ii) The cart-man is driving his cart in a slowly manner.
 - (iii) Alam is known for his gentle manners.
- Group E: (i) Would you like to have a cup of coffee?
 - (ii) If you wanted to perform well, you shall work hard.
 - (iii) We can reach Delhi by road.

Write a paragraph on a recent *Tree Plantation Drive* undertaken by your school. Your paragraph should be in about seventy words. Give the following details:

- Name and location of your school
- Date, time and place of the Tree Plantation Programme
- Inauguration Ceremony
- The participants
- Guests present, if any
- Cultural programme to mark the day
- Your role

Let's work together:

- A. Mother Nature smiles when spring comes. She decorates herself with tender green leaves and colourful flowers. Make a scrapbook entry describing three common flowers that you see blooming in spring. Draw their pictures alongside the descriptions. Work in pairs.
- B. We celebrate the season of spring too. There are many festivals during spring. Find out how different sections of the society enjoy the festivals. In your scrapbook write about any two festivals of spring. Draw or paste pictures of such festivals alongside the write-ups. Work in groups.

Lesson: 9

J.C. Bose: A Beautiful Mind

Let's start:

A biography is the life story of someone, usually eminent. The person may be alive or dead. Biographies are always written by somebody other than the person himself. We read biographies of eminent persons so that we may learn about them and try to be like them.

Let's share:

- Can you name any eminent person of your district?
- Who is this person in the picture?
- Do you know anything about him?

Unit I

Let's read:

Historically, in 1895, India was under the British rule. A different history was made that year at the Town Hall in Calcutta. An interesting demonstration was

performed by Jagadish Chandra Bose, an Assistant Professor of Presidency College. Everyone was **overawed** when the electro-magnetic waves travelled from the Lecture Hall to a third room about 75 metres away. These waves passed through three solid walls. This was a remarkable and path-breaking incident which **paved** the way for future research all over the world.

Born on 30th November 1858 at Bikrampur (now Munshiganj district of Bangladesh), Jagadish Chandra Bose

was a man of **diverse** talents: a physicist, biologist, botanist as well as a writer of science-fiction. His father, Bhagwan Chandra Bose, was a leader of the Brahmo Samaj. He worked as a Deputy Magistrate in Faridpur, Burdwan and in other places. Jagadish Chandra's education started in a Vernacular school because his father

believed that one must know one's mother tongue before learning any other language. Besides, one should know one's own people. Speaking at the Bikrampur Conference in 1915, Bose said:

"At that time, sending children to English schools was a privileged status symbol. In the vernacular school, to which I was sent, the son of the Muslim attendant of my father sat on my right side, and the son of a fisherman sat on my left. They were my playmates. I listened **spellbound** to their stories of birds, animals and aquatic creatures. Perhaps these stories created in my mind a keen interest in investigating the workings of Nature. When I returned home from school accompanied by my school fellows, my mother welcomed and fed all of us without **discrimination**. It was because of my childhood friendship with them that I could never feel that there were 'creatures' who might be labelled 'low-caste'. I never realized that there existed a 'problem' common to the two communities, Hindus and Muslims."

In 1869, Bose joined Hare School and six years later he was admitted to St. Xavier's School in Calcutta. He passed the Entrance Examination and joined St. Xavier's College of Calcutta. It was here that he came in contact with Jesuit Father Eugene Lafont who played a significant role in developing his interest in natural science. Later, Bose went to England and secured admission in Christ College, Cambridge, to study Natural Science. In 1884, he received the Natural Science Tripos from the University of Cambridge and a B. Sc. degree from the University of London.

The following year, Bose joined Presidency College as officiating Professor of Physics. But he was not provided facilities of research. He was also offered lower salary than his European colleagues. Bose had a remarkable sense of self-respect and national pride. Therefore, as a sign of protest, he continued his teaching assignment for three years without accepting his salary. Finally, the Director of Public Instruction and the Principal offered him a permanent teaching post.

Word Nest

demonstration: an activity that shows and explains how something works; **overawed**: impressed; **paved**: created a situation in which something can happen; **diverse**: of various kinds; **spellbound**: attention completely held by what the person is listening to and watching; **discrimination**: practice of treating somebody less fairly than others

Let's do:

Activity 1

Choose the correct answer from the given options:

- (a) Jagadish Chandra Bose studied in—(i) Hindu School (ii) Hare School (iii) Ballygunge Government School.
- (b) Bose met Father Lafont at—(i) Cambridge (ii) London (iii) St. Xavier's College
- (c) Bose graduated in B.Sc. from –(i) University of Cambridge (ii) University of Oxford (iii) University of London

Activity 2

Fill in the chart with information from the text:

Year	Event
	J.C. Bose was born
1869	
	Joined St. Xavier's College
1884	
	Joined Presidency College
	Demonstration at Town Hall

Activity 3

Complete the following statements with information from the text:

(a)	Bose's father used to work as
(b)	was the leader of the Brahmo Samaj
(c)	In his school days Bose's playmates were
(H)	Bose went to England to

Answer the following questions:

- (a) Why did Jagadish Chandra Bose receive his early education in a Vernacular school?
- (b) What did Bose's mother do when he brought his friends home from school?
- (c) Who was Lafont? How did he influence Bose?
- (d) Why did Bose refuse to accept his salary?

Let's learn:

Jagadish Chandra Bose was a man of diverse qualities: a physicist, biologist, botanist

In Lesson 7 you have read about 'Single word for group of words'. Each of these words—'physicist', 'biologist', 'botanist'—is a single word for a group of words. Now let us find out their expanded forms:

Physicist: one who studies elements of physics

Biologist: one who studies physical life or living matter

Botanist: one who studies plant life

Activity 5

Match the single words with their expanded forms :

Single word form	Expanded forms
astronomy	a place where books are kept
library	a garden of many fruit trees
garage	a person who handles cash
psychology	study of stars and planets
orchard	study of human mind
cashier	a place to keep cars

Unit II

Let's continue:

Bose had invented several **sensitive** instruments. One of them is the *Crescograph* which is used to measure the growth rate of plants. Through his experiments Bose showed that plants behave in the same manner as human beings, although plants take longer to respond than animals. He proved that plants are sensitive to heat, cold, light, noise and other external stimuli, just like human beings. By injecting poison into a living plant Bose showed that they react in the same manner as we do.

Scientific research on electro-magnetic waves was initiated by J.C. Bose in the late 19th century. It was the Italian scientist Marconi who got the patent for the invention of wireless telegraphy. But we must remember that Bose's public demonstration in Calcutta along the same lines happened much earlier. Instead of looking for commercial benefit for his inventions, Bose made his



inventions public in order to allow others to advance further along the lines of his research. However, Bose's place in history has now been re-evaluated.

This great Indian scientist was eventually crowned with glory when he was awarded Knighthood by the British government in 1917. He was also conferred many other awards like 'Fellow of the Royal Society', 'Companion of the Order of the Indian Empire' etc. Needless to say, he is one of the greatest scientists ever born in our country.

Sir J.C. Bose wrote several books and published many research papers in leading science journals. Some of his famous books are *Response in the Living and the*

Non-living (1902), The Nervous Mechanism of Plants (1926), Major Mechanism of Plants (1928) etc. In 1896, Bose wrote Niruddesher Khoje, a science fiction. In fact, he was the first writer of science fictions in Bangla.

In November 1917, Bose founded the 'Bose Institute' at his own house in Calcutta. He donated 'Bose Institute' to the nation for research on science. This great Indian scientist breathed his last on 23rd November, 1937.

Word Nest

sensitive: able to measure very small changes; **initiated**: set something in motion; **patency**: official right to be the only person to make use of an invention

Let's do:

Activity 6

Identify which of the following statements are True and which are False. Give a supporting statement for your answer:

- (a) Crescograph was invented by Marconi.
- (b) Marconi got the patency right for wireless telegraphy.
- (c) Bose was awarded Knighthood in 1919.
- (d) No other Bengali writer had written science fiction before J.C. Bose.

Activity 7

Complete the following statements:

- (a) Crescograph is used to ______(b) Bose proved that plants are ______
- (c) In 1917 Bose founded _____
- (d) Bose Institute was founded in

Answer the following questions:

- (a) 'Bose had invented several sensitive instruments'. Name a 'sensitive instrument' invented by J.C. Bose. What is its use?
- (b) What did Bose prove by his experiments on plants?
- (c) Do you think Bose was uninterested about securing patency right? Why?
- (d) What were the various awards and honours conferred on Bose?
- (e) Name some of his books and publications.

Let's talk:

Sit in groups. Discuss with your friends about-

- one characteristic feature of J.C. Bose that you liked
- an experience in which you had taken care of plants

Let's learn:

Study the following sentences carefully:

- The great Indian scientist was eventually crowned with glory.
- Bose's place in history has now been re-evaluated

The coloured words above are all adverbs. Now let's learn about the different functions of adverbs.

In the first two sentences, the word **eventually** and **now** indicate <u>the time when</u> the action is completed. Such adverbs are called **Adverb of Time.**

Let's look at some more examples:

- (1) He **never** waited for anyone.
- (2) He is **seldom** present.

(3) Javed often visits his cousin in Kolkata.

In the above sentences, the coloured words indicate <u>how often the action is performed</u>. Such adverbs are called **Adverbs of Frequency**.

Let's look at the following sentences:

- (1) He was **closely** bound up.
- (2) She sings well.
- (3) The soldier fought bravely.

In the above sentences, the coloured words indicate <u>how or in what manner the</u> <u>action is performed</u>. Such adverbs are called **Adverbs of Manner**.

Let's look at the following sentences:

- (1) He went everywhere.
- (2) Move backward.

In the above sentences, the coloured words indicate <u>where the action takes place</u>. Such adverbs are called **Adverbs of Place**.

Now read these sentences:

- (1) He is therefore unhappy.
- (2) He is **hence** unable to come.

In the above sentences, the words 'therefore' and 'hence' indicate <u>why the action</u> <u>is performed</u>. Such adverbs are called <u>Adverbs of Cause and Effect</u>.

Now, let's look at the sentences below:

- (1) When did you come home?
- (2) Where is your bag?
- (3) How did you return home yesterday?

In the above sentences, the words 'when', 'where' and 'how' <u>are used to ask questions</u>. Such adverbs are called **Interrogative Adverbs**.

Let's do:

Activity 9

Read the following passage and underline the adverbs. An example is given:

Shanti is a young girl. She lives in a remote village with her family. Her school is five miles away from **there**. But Shanti attends her school daily. She stood third in her class in the previous examination. She believes that she can do better. She is now concentrating on her studies more seriously. Shanti never behaves rudely with her classmates. So they like her. She follows her teachers attentively in the class. Therefore the teachers really like her. They often enquire whether she is facing any problem. Why do many teachers think that Shanti is the best girl in the class? It is because Shanti has faced the challenges of life bravely.

Activity 10

Now put the underlined adverbs from the above passage in the chart according to their functions. One is done for you:

Adverb	Function
There	indicates the place where the action happens
	indicates how often something happens
	indicates why the action is performed
	indicates how or in what manner the action is performed
	used to ask a question

Let's learn:

Study the following sentences:

- No other Indian poet is as **good** as Tagore. (Positive degree)
- Tagore is better than any other Indian poet. (Comparative degree)
- Tagore is the best Indian poet. (Superlative degree)

In these three sentences, the degree of adjectives is changed but the meaning has remained unchanged. Again,

- Very few scientists born in our country is as great as Bose. (Positive degree)
- Bose is greater than most other scientists born in our country.
 (Comparative degree)
- Bose is one of the greatest scientists ever born in our country. (Superlative degree)

Here also, the degree of adjective changes from one sentence to another, but the meaning of all the three sentences remain the same.

Let's do:

Activity 11

Transform the degree of adjectives of the following sentences as directed:

- (a) Plants are as sensitive as animals.(change into comparative degree)
- (b) Simla is cooler than Kolkata. (change into positive degree)
- (c) Umesh Yadav is the fastest bowler in the Indian cricket team.(change into comparative degree)
- (d) Ishant Sharma is taller than any other Indian cricketer. (change into superlative degree)
- (e) Mt. Everest is the highest mountain in the world. (change into positive degree)

In this lesson you have read the biography of a great Indian scientist. Now write a biography (in about seventy words) of Prafulla Chandra Roy, who was another great Indian scientist. You can use the following hints:

Birth: 1861, Khulna, now in Bangladesh—education: village pathsala, Hare School, Albert School, passed Entrance examination (1879), F.A. from Metropolitan College (1882)—won Gilchrist scholarship (1882)—went to London—B.Sc. from Edinburgh University (1882-84), D.Sc., Edinburgh University—Professor of Presidency College (1889)—first to prepare Mercurous Nitrite in laboratory (1896)—established Bengal Chemicals (1901)—joined Science College as Palit Professor—death:1944

Activity 13

You have come to know that the local postman has delivered your letter to your neighbour's house by mistake. Write a letter to the post office with a request to return the letter to you.

Let's work together:

Poster Making

Take a sheet of chart paper. Collect a postcard-size picture of any famous Indian scientist. Paste the picture on the sheet of paper. Write in brief (as shown in hints of Activity 12) about him/her.

Paste a thin strip of wood on either edge of the poster. Display the poster in the classroom.

Lesson: 10

The Echoing Green

William Blake

Let's start:

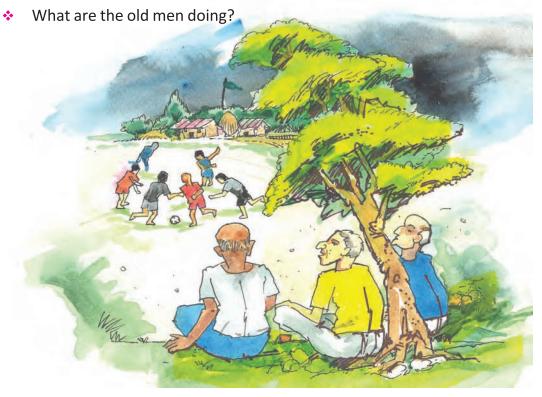
William Blake(1757-1827) was one of the greatest poets of the Romantic age . Blake's poetry was published in a manner most unusual in literary and art history. He set up a print shop and engraved and published his own poems . Some of his well-known works are *Songs of Innocence, Songs of Experience* and *The Marriage of Heaven and Hell* .



Let's share:

Look at the picture.

- What do you see in the picture?
- What are the children doing?



Let's read:

The sun does arise,
And make happy the skies.
The merry bells ring
To welcome the spring.
The skylark and thrush,
The birds of the bush,
Sing louder around,
To the bells' cheerful sound,
While our sports shall be seen
On the echoing green.

Old John with white hair
Does laugh away care,
Sitting under the oak,
Among the old folk.
They laugh at our play,
And soon they all say:
'Such, such were the joys
When we all, girls and boys,
In our youth-time were seen
On the echoing green.'

Till the little ones weary
No more can be merry;
The sun does descend,
And our sports have an end.
Round the laps of their mother
Many sisters and brothers,
Like birds in their nest,
Are ready for rest;
And sport no more seen
On the darkening green.

Word Nest

cheerful : pleasant; folk : people; weary : very tired; descend : go down

Lets' do:

Activity 1

Put a tick mark to choose the correct word/expression from the given alternatives:

	on the contract of the contrac
(a)	The sun makes the sky (i) sad (ii) happy (iii) excited
(b)	The merry bells welcome the (i) spring (ii) autumn (iii) winter
(c)	Old John has (i) black hair (ii) brown hair (iii) white hair
(d)	The old men are sitting under (i) a tree (ii) an umbrella (iii) a canopy
(e)	In the evening the children come to the laps of their (iv) mother (v) father (vi) aunt
	Activity 2
Comple	te the following sentences with information from the poem:
(a)	The birds of the bush sing to the

(b) Old John sits among _____

Activity 3 Answer the following questions: (a) Which are the two birds mentioned in the poem? (b) Who is sitting under the oak? (c) Pick out an expression from the poem to show that the old men are happy to see the children playing. (d) What do the children do when evening descends? **Activity 4** Use can, could, should, would and might to fill in the blanks: (a) I use your phone? (b) She be in her bedroom. (c) The programme be finished by now. (d) She spend hours in the library. (e) He run fast. **Activity 5** There are certain qualities you want your best friend to have. Among these, there would be some qualities he/she must have and some would be qualities he/she may have. Make a list of qualities which he/she must have and which he/she may have. must may (1) He **must** be an honest person. (1) He may be a great sports lover.

(c) The sport of the children reminds the old men of their .

(e) In the evening the sports of the children

(d) The children are tired when ______.