

Lesson 5

Louis Pasteur



Where would you see the following signs? These signs mention the names of some deadly diseases. Find the names of the diseases and write them in the boxes below:

BEWARE OF ANIMAL BITES
THEY MAY CAUSE RABIES



Prevention is the only
cure for AIDS



MEASLES is a deadly disease.
It can lead to

- Pneumonia
- Diarrhoea
- Other life threatening complications



The anopheles mosquito is a carrier
of MALARIA

- Keep food and water covered!
- Use repellent.
- Sleep under a mosquito net.

RUBELLA is caused by a VIRUS.

RUBELLA infection during pregnancy
can lead to children born with congenital
birth defects, as

- Blindness
- Deafness
- Mental retardation
- Congenital heart defects



Let's read about Louis Pasteur. Louis Pasteur found a cure for rabies, one of the deadliest diseases of the 19th and 20th centuries.



One day a boy called Louis Pasteur was playing with his friends in Abois, a small town in France. Suddenly he saw a man running towards him. The man was very frightened. “What is the matter?” Louis asked him. “Someone has been bitten by a mad wolf from the mountain.” Louis was scared because he understood that the mad wolf was suffering from rabies.

Rabies is a viral disease that causes inflammation of the brain in humans and other mammals. Animals with rabies go mad and die. Human beings get the virus when they are bitten or scratched by animals with rabies. “The man who was bitten by the mad wolf will get the disease and die,” thought Louis. The incident disturbed him. Who knew that one day he would be the one to find a cure for the deadly disease?



Many years later, while experimenting on rabbits, Pasteur found the deadly virus that causes rabies. In his experiments, he treated the ailing rabbits by injecting them with the same virus and succeeded in curing them. “If only I had a chance to try it out on human beings!” he thought. The chance came soon.

On July 6, 1885, a boy was returning from school when he was bitten by a mad dog. His mother came to Pasteur crying, “Can you save my son, Sir? Would you please save him? I am ready to give you everything I have.”

“Don’t worry,” Louis said, consoling the boy’s mother. “I’ll do whatever I can.” “Maybe it will benefit the entire human race in the future,” he thought. Pasteur was not sure if his method would work on human beings. Yet he made up his mind to take the risk. He injected the boy with the virus and kept him under watch. To his pleasant surprise, the boy responded to Pasteur’s treatment. This new method of treatment of rabies made Pasteur famous all over the world.

In 1888, the French government founded the Pasteur Institute in Paris. This institute is dedicated to the study of biology, micro-organisms, diseases and vaccines. Louis Pasteur died in 1895.



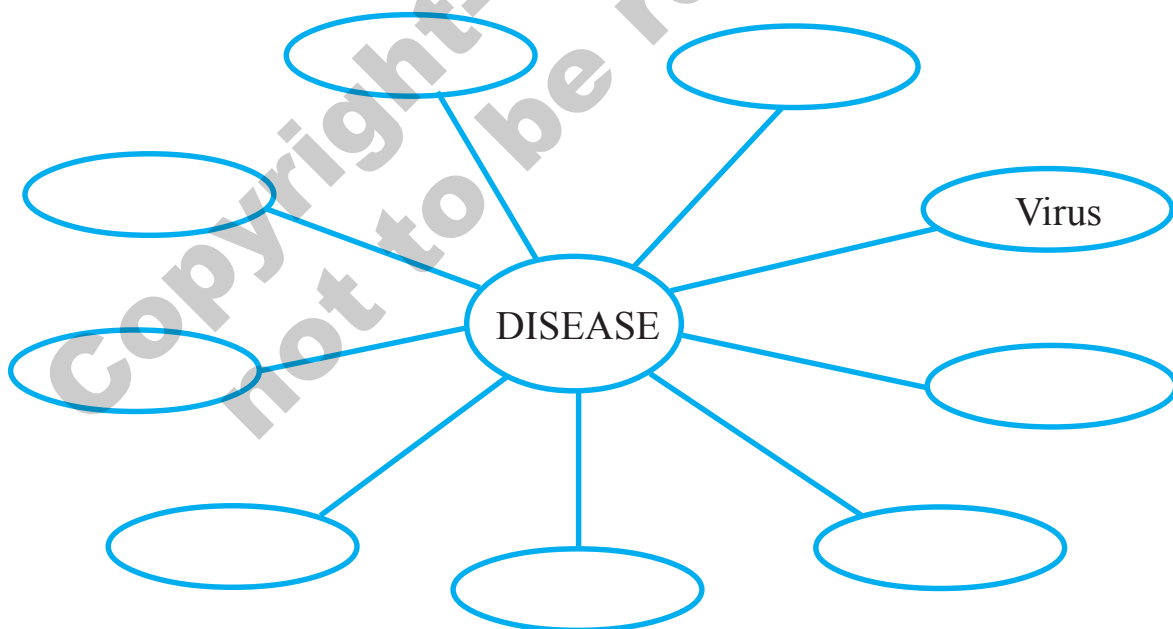
ACTIVITIES

1. Answer the following questions to check your understanding:

- (a) What happened one day while Louis Pasteur was playing with his friends?
- (b) What does rabies cause in human beings?
- (c) What experiments did Pasteur conduct on rabbits?
- (d) Who was Pasteur's first human patient? Was his treatment successful?
- (e) When and where did the French government establish the Pasteur Institute? What is it famous for?



2. You must have noticed that the lesson has many words related to diseases. Read the lesson carefully and note down all these words in the word web below. One has been done for you.



3. Here are five friends sharing information about diseases. Complete their dialogues with information from the lesson.

(a) Puja :

Beware of animal bites

.....

(b) Rohan :

Measles is a deadly disease. It can lead to

.....

(c) Pushpa :

Rubella infection can lead to

.....

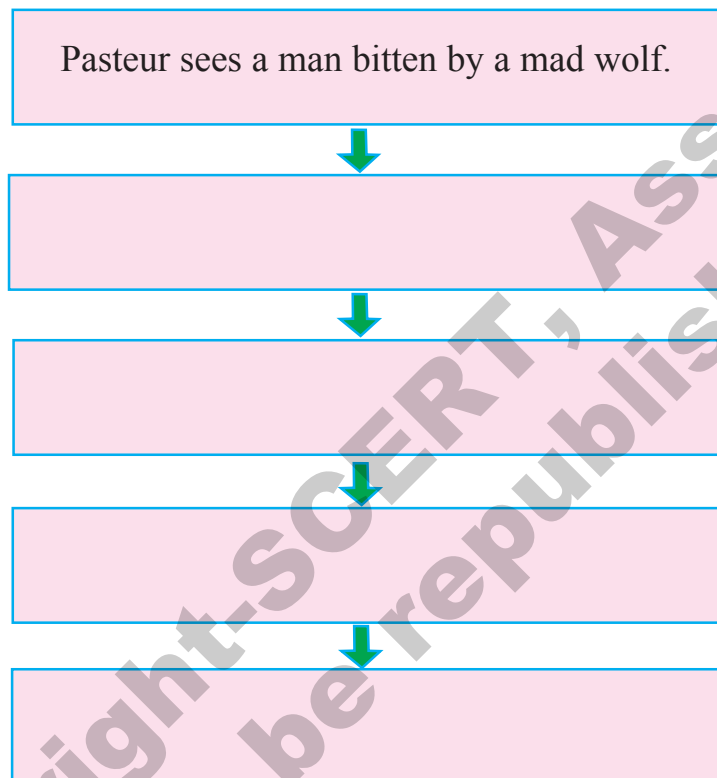
(d) Jumon :

The anopheles mosquito

.....



4. Do you know what a flowchart is? It is a diagram that shows how one thing leads to the next. Read the lesson once again and complete the flowchart to show the chain of events. The first entry has been inserted for you.



5. Here are some sentences from the lesson.

A man came running towards Louis Pasteur. The man was very frightened.

“What is the matter?” Louis asked him. Someone *has been bitten* by a mad wolf from the mountain.

Look at the words printed in italics.

Can you recall which grammatical structure is represented by the words in italics? Fill in the blank spaces provided below to give the answer.

The words printed in italics are in the P _____ voice.

By changing the verb forms, the sentence can also be written in the following way:

(a) A mad wolf from the mountain *has bitten* someone.

This sentence is in the A _____ voice.

Now, read the lesson and find out other sentences in Active voice. Reframe these sentences if necessary. Then convert them into their Passive forms.

6. (a) Let's learn some tense forms:

We use the **Simple Present** tense

(i) to express universal truths:

Animals with rabies *grow* mad.

(ii) to express habitual or repeated action:

Louis Pasteur *plays* with his friends.

(iii) to indicate situations that are permanent:

He *works* in the institute.

(b) We use the Present Continuous tense to express an action that is presently going on:

He *is working* on his experiment.

(c) Now complete these sentences using the Simple Present or the Present Continuous forms of the verbs in brackets:

(i) We _____ football in the afternoon. (play)

(ii) The sun _____ in the east. (rise)

(iii) Don't make a noise ; the baby _____. (sleep)

(iv) Someone _____ at the door; can you hear it? (knock)

(v) The man _____ towards the bus. (run)

- (vi) The bus usually _____ at 8 o'clock. (come)
(vii) He _____ for an engineering entrance examination. (prepare)
(viii) He _____ German. (learn)

7. (a) We use the Simple Past tense:

- (i) to talk about an action that has already taken place, e.g.**

This method of treatment of rabies *made* Pasteur famous all over the world.

- (ii) to show a series of completed actions, e.g.**

He *injected* the boy with the virus and *kept* him under watch.

(b) We use the Past Continuous tense:

- (i) to refer to an action that was going on for a certain period of time in the past. e.g.**

One day, a boy called Louis Pasteur *was playing* with his friends.

- (ii) to show that something happened while another action was going on, e.g.**

Many years later, when he *was experimenting* on rabbits, he found the deadly virus that causes rabies.

(c) Let's see how much you have understood. Complete these sentences using the Simple Past or the Past Continuous forms of the verbs in brackets.

- (i) Louis Pasteur _____ in 1895. (die)
(ii) Pasteur knew that the mad wolf _____ from rabies. (suffer)
(iii) When I reached his house, he _____ lunch. (have)
(iv) I _____ last evening. (arrive)
(v) The boys _____ football when it suddenly began to rain. (play)



8. Imagine you are the young boy who was bitten by the mad dog. You are telling your friends what happened when you were coming home from school. Fill in the gaps in the passage below with correct forms of the verbs to complete your story.

Yesterday I _____ (return) from school alone. On the way I _____ (see) a group of boys around a dog. The dog _____ (seem) to be mad, and the boys _____ (throw) stones at it. This _____ (make) the dog angry and frightened. The dog _____ (begin) to bark angrily. The boys _____ (find) this very funny and they _____ (hit) the dog with a stick. I _____ (stand) nearby quietly. Suddenly the dog _____ (rush) at me and _____ (bite) me. I _____ (shout) to the boys to help me. But they _____ (run) away. The dog _____ (is) so angry that it _____ (will) not let go of my leg. Finally, three men from a nearby shop _____ (come) out and _____ (chase) the dog away.

9. Here are a few words from the lesson. See if you can match the words to their meanings:

Words	Meaning
scared	• a living thing, too small to be seen without a microscope, that causes infectious diseases
scratched	• sick and not improving
ailing	• to be frightened of something or afraid that something bad might happen
virus	• a very small living thing that you can only see under a microscope
micro-organism	• when the skin is cut or damaged slightly with something sharp, such as nails

10. Look at the pictures given below. Write sentences in the boxes using words from the lesson to describe the pictures.



Copyright © SCERT, Assam
Not to be republished

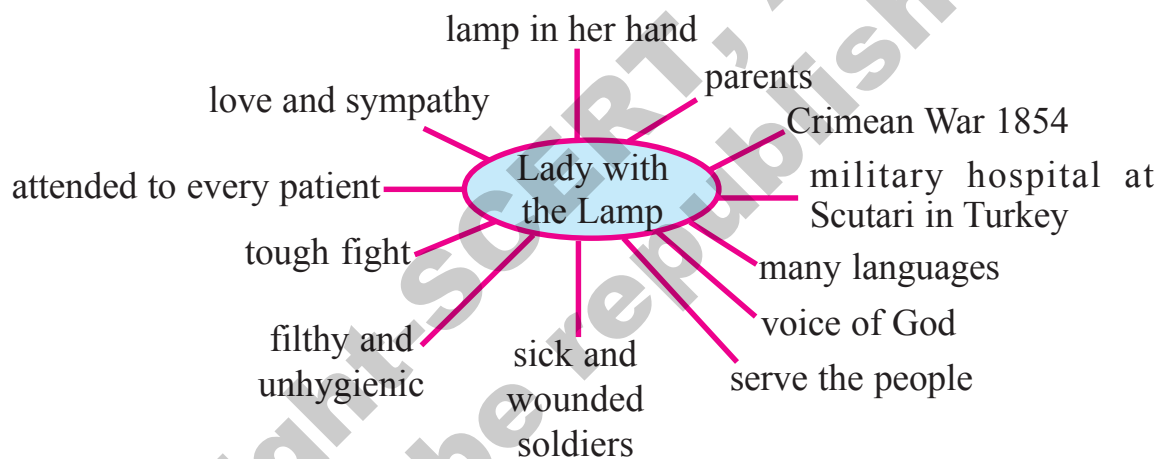
11. Look at the following sentences. They are in Direct speech. Imagine you are reporting the conversation to someone. Rewrite the sentences in Indirect/Reported Speech.

- (a) “What is the matter?” Louis asked him.
- (b) “Can you save my son?” the woman asked Louis.
- (c) “I’ll do whatever I can,” said Louis to the boy.



12. **Work in groups. Make a poster (using pictures and captions) to create public awareness of what happens when mosquitoes and animals bite. Remember to mention the (i) diseases, (ii) their prevention and (iii) their cure.**
13. **Mamu was trying to write about Florence Nightingale for her school magazine on the occasion of World Health Day. Let's see how she prepared to write it:**

- First she made a mind map for her passage. She wrote down important words and phrases related to Florence Nightingale so that she could include them in her passage.



- Then she organized the points and wrote her first draft.
- After that, she revised her draft and wrote the final copy.

Read her final copy and do the task that follows.

Florence Nightingale was the second daughter of William Edward Nightingale and Frances (Fanny) Smith. From her childhood Florence Nightingale wanted to serve people. So she completed a course in nursing to serve sick and old people. When the Crimean War broke out in 1854, she volunteered at once to go to Constantinople to serve the sick and wounded soldiers. She took three nurses with her but Sydney Herbert, the then Secretary of State at War, wanted her to take out a much larger party of nurses. She was officially asked to take charge of the nursing

in the military hospital at Scutari in Turkey. The party left England in October 1854. They reached the barrack hospital at Scutari on November 5. On arrival she found that the hospitals were overcrowded. Everything was filthy and unhygienic. Patients had to lie even in the corridors. She had a tough fight with the administration to set everything in order. She spent many hours a day in the wards. She attended to every patient and comforted them with love and sympathy. She used to move in the wards each night comforting wounded soldiers with a lamp in her hand. The wounded soldiers began to call her The Lady with the Lamp. Soon, she became the symbol of love and hope for all. Her lamp lit up their lives with a healing touch. Florence Nightingale realised that human love was as important as medicine for healing. To her, the best way to serve God was to serve the suffering people.

Now think of a few words to describe Florence Nightingale.

Working with a partner, draw/ paste a picture of Florence Nightingale in a piece of chart paper, and paste around the picture all the words that you have written to describe her.

14. Read the definition given below:

*A **proverb** is a well-known phrase or sentence that gives advice or says something that is generally true.*

Some examples of proverbs are—

Absence makes the heart grow fonder.

An apple a day keeps the doctor away.

The most important function of proverbs is to teach people good morals. They often contain advice, with the purpose of teaching wisdom to common people. Since proverbs are usually metaphorical and indirect, they allow writers to express their advice in a less harsh way.

Pick out the proverbs from the list given below:

- (a) A white elephant
- (b) Crocodile tears

- (c) All that glitters is not gold
- (d) Every cloud has a silver lining
- (e) Early to bed and early to rise makes a man healthy, wealthy and wise
- (f) A black sheep

Now, read the lesson carefully. Then, using the text as the basis, in groups discuss and prepare a speech on the following proverb:

Prevention Is Better Than Cure.

Remember to prepare the speech from the perspective of maintaining good health. The group leader or any other member chosen by the group will then present the speech before the class. The class will vote for the best speech among the groups. The teacher will suggest necessary improvements to the groups.

The speech voted to be the best by the class will then be presented before the morning assembly of the school.

15. Prepare a quiz on the lesson Louis Pasteur.

Each group will select a quizmaster and a scorer to conduct the quiz and keep the scores. The quiz will be held among the groups other than the group conducting the quiz. Each group will take turns to conduct the quiz in the class.

The groups will make a note of the questions of each group. Then all the questions will be compiled by the class and the answers will be written down in their notebooks. (You may refer to Lesson 3 for ideas.)

16. Fun with sounds: practise saying this tongue twister as fast as you can.

Four Frenchmen from France fried forty-five flying fish that fly faster than flat flying fleas.

Now, in pairs, make a tongue twister using information from the lesson, and make your friends say it for fun.

17. Refer to a dictionary or your text and give two examples of adjectives with the following prefixes or suffixes. (One is done for you.)



happy	tidy				
un-		dis-		-less	
unhappy	untidy				
-al		-ful		-ous	

Now, use some of these adjectives in your own sentences.

18. (a) Recite:

The mosquito named Little
Has venom in her spittle.
Net, repellent and spray
Always frighten her away.



(b) Now, develop a poster based on the poem.



For the Teacher

The theme of this lesson being disease, its prevention and cure, learners will become familiar with the language used to talk about common diseases and their cure.

Activity 1 - 4 are to test learners' comprehension and give them practice in writing answers and dialogues.

In Activity 4, help learners to complete the flow chart to show the chain of events that exists in the lesson. Learners have already learnt the concept of Active and Passive voice. Activity 5 will help the learners to find from the lesson sentences in the Passive Voice and convert them into Active Voice.

Activities 6 and 7 are designed to enable learners to understand the tense forms 'Present' and 'Past'. You may provide more examples beside the ones given in the exercise. This will enable learners to complete Activity 8.

In Activity 9, learners will learn to understand the meanings of new words from the content. They will then be able to practise using such words in sentences of their own in Activity 10.

Activity 12 and Activity 13 are meant to encourage learners to practise their composition skills by using the words and sentences they have learnt in the lesson.

You can ask learners to draw and paste a picture of Florence Nightingale on a chart paper and write all the words around the picture to describe her.

Activity 14 is another exercise to familiarize learners with the different uses of English. It introduces learners to 'Proverbs' and their use. Since proverbs allow writers to express their advice in a less direct way, learners will be able to use these in their speech or in writing.

Tongue twisters are sequences of words with similar sounds that are difficult to pronounce quickly and correctly. Your students will enjoy the tongue twister in Activity 16. Encourage them to make more tongue twisters using information from the lesson.

Activity 17 is both a vocabulary building exercise and a grammar task. This activity will build learners' store of active vocabulary. Learners will enjoy the poem in Activity 18. You may help them to understand some of the words in the poem before they develop a poster based on the poem.

Learning Outcomes:

The learner:

- reads excerpts, dialogues, poems, commentaries of sports and games, speeches, news, debates on T.V., Radio and expresses opinions about them
- participates in different events such as role play, poetry recitation, skit, drama, debate, speech, elocution, declamation, quiz, etc., organized by school and other such organizations
- interprets quotations, sayings and proverbs
- reads textual/non-textual materials in English/ Braille with comprehension
- identifies details, characters, main idea and sequence of ideas and events while reading
- infers the meaning of unfamiliar words by reading them in context
- refers dictionary, thesaurus and encyclopedia as reference books for meaning and spelling while reading and writing
- communicates accurately using appropriate grammatical forms (e.g., clauses, comparison of adjectives, time and tense, active passive voice, reported speech, etc.)
- writes a coherent and meaningful paragraph through the process of drafting, revising, editing and finalizing
- writes answers to textual/non-textual questions after comprehension/in reference; draws character sketch, attempts extrapolative writing
- writes e-mail, messages, notice, formal letters, descriptions/narratives, personal diary, report, short personal/biographical experiences, etc.