During the course of history, populations all over the world have been struck down by contagious diseases. There was a time when town and countryside lived in fear of catching the plague, tuberculosis or diphtheria. Today, the remarkable progress of medicine has nearly wiped out these dreadful diseases in industrialized countries.

However, one hundred years since Louis Pasteur, microbes have also evolved, with antibiotic-resistant bacteria. For this reason, it is essential not to take medicines unnecessarily, particularly antibiotics. Once again we are threatened, by new diseases that doctors do not yet know how to treat!

Write down their names in the correct column.

Tetanus - Aids - Tuberculosis - Diphtheria - Rabies - Cancer - Poliomyelitis

<table>
<thead>
<tr>
<th>Old diseases</th>
<th>New diseases</th>
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Resident and imported diseases

Circle in red European diseases and in blue those which have come from elsewhere.

Malaria - Aids - Viral hepatitis - Leprosy - Cancer - Trachoma - Dengue fever
For each of these scientists, find the name of the old disease they helped to combat. Netoon has jumbled everything. Help him get the words straight.

1. Replace each letter with the one which precedes it in the alphabet
   L. Pasteur

2. Cross out all the double letters
   G. Ramon

3. Replace each letter with the one which follows it in the alphabet
   A. Calmette

4. Find the missing letters
   Girard & Robic

5. Rearrange the letters
   R. Koch

6. Cross out all the "v"s
   Salk, Lépine & Sabin
Modern Science

Let's find out about today’s scientific methods

What is the difference between standard and electron microscopes?

Microbiology, a speciality of the Institut Pasteur, is the study of how microbes cause diseases, in order to discover how to treat them.

Microbiology

Microbiology has many branches. Can you identify them?

Link each research branch with its definition.

2. Bacteriology  b. Study of the interaction between insects and microbes.
5. Entomology  e. Study of bacteria responsible for grave illnesses.

Research

Insert the words into this text about research institutes.

cures - data - discoveries - institutes - diseases

There are many different research ......................... and scientific organizations dedicated to health and sickness prevention. Researchers gather large amounts of ......................... , endeavering to improve our lives by finding ......................... , to disease, health and hygiene problems, all closely linked.

The work of thousands of scientists and their colleagues gives us great hope that it will lead to other important ......................... helping to control modern .........................

Write the names of two great scientific research institutes.

..............................................................

List the great discoveries made by Louis Pasteur.

..............................................................

..............................................................
Focus on Immunology

This stomach has been invaded by an army of germs. How does the body fight them off?

Immunity is the body's memory against disease.

Write down the parts of the immune system you have identified

.................................................................

Written on the Netoons' flags are the missing words in the text. Put them in the gaps.

When the doctor .............. you, he injects a very .............. quantity of microbes into your body. Some organs then produce .............. and .............., due to their .............. cells. Later, if other germs try to give you this disease, your body .............. them and protects you against them.

Did you know?

From observations made by Doctor Edward Jenner, Louis Pasteur established the scientific basis of vaccination in 1885, and opened the way to immunology.
Great Discoveries

The progress of science

Scientific innovations by Louis Pasteur, his pupils and contemporaries in other countries, established the principles of modern hygiene.

- a. 1879 - 1. Invention of the first microscope
- b. 1928 - 2. Discovery of animals invisible to the naked eye
- c. 1590 - 3. Discovery of the first vaccine
- d. 1796 - 4. Invention of the word "microbe"
- e. 1674 - 5. Discovery of penicillin

What is a bactericide?

What does the word bactericide mean?

Circle the bactericides.

Disinfectant - alcohol - mineral water - lemon juice - milk - penicillin - sun cream
True or False?

1) The concept of hygiene has been known since Ancient times ....... True □ False □

2) In 1292 Paris had 26 public baths for 250,000 inhabitants ............................................ True □ False □

3) In the 17th century, people washed with water because they thought it purified the skin ............................................ True □ False □

4) During the Renaissance, the use of clean cloth to rub any visible part of the body became the only method of personal hygiene ................................................................. True □ False □

5) In 1802, it became law in France that all new buildings should have a drainage system to the sewers ........................................................ ............................................ True □ False □

6) The septic tank was invented by an abbot called Moignon in 1882 ............ True □ False □

7) Good hygiene inhibits the spread of epidemics ...................... True □ False □

8) Edward Jenner set out the basic principles of scientific research in 1865 .......................................................... True □ False □

9) A flannel is very hygienic .......................................................... True □ False □

10) In the 19th century, surgeons were more interested in appearing clever than in washing their hands ...................... True □ False □