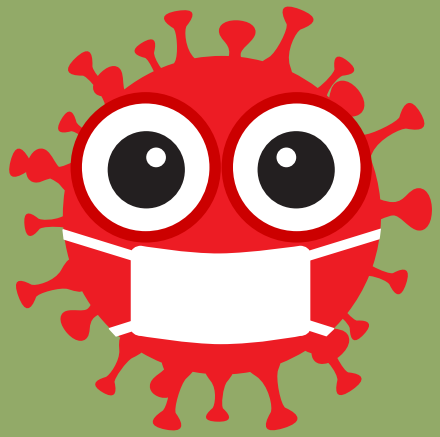
Super English

Unit 5 - Lesson 1
Microorganisms



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VOCABULARY

LET'S LEARN

Microorganisms - Vocabulary

microorganism: a living thing that on its own is too small to be seen without a microscope (n)

The microbiologist looks at **microorganisms** through a microscope.

Microorganisms - Vocabulary

microbiology: the study of microorganisms, or microbes (n)

She is a microbiologist, so she studied **microbiology** at her University.

Microorganisms - Vocabulary

reproduce: to produce a new living thing of the same type as itself (v)

If animals didn't **reproduce** and have babies they would go extinct.

Microorganisms - Vocabulary

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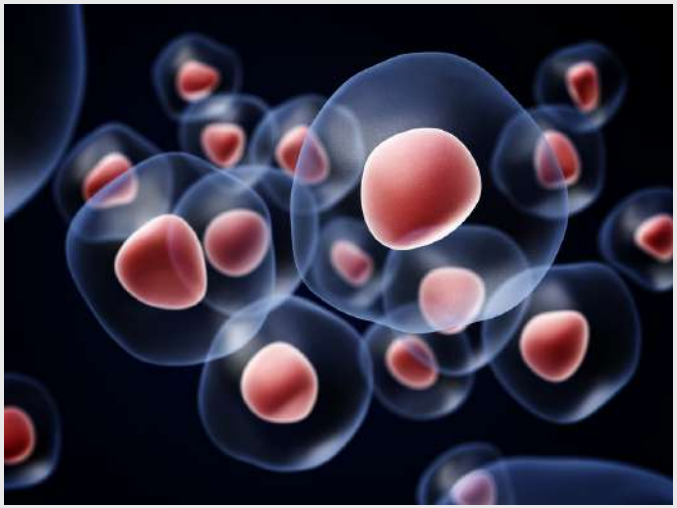
cell: the smallest basic unit of a plant or animal (n)



Humans are complex organisms made up of trillions of **cells**, each with their own structure and function.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Let's Read!
COMIX

Microorganisms

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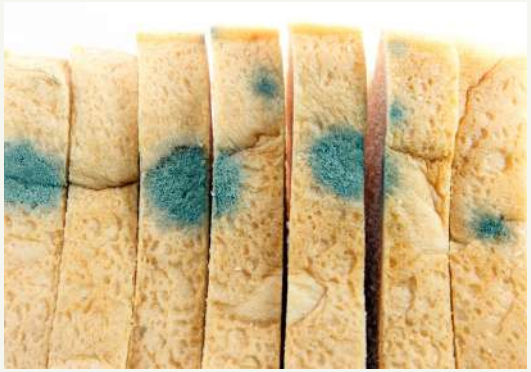
Some living organisms cannot be seen with the naked eye and can only be seen with a powerful microscope. These organisms are called **microorganisms** or microbes. There are five types of microorganisms: fungi, bacteria, viruses, algae, and protozoa. Most microorganisms are essential and beneficial to life on Earth. Others, however, can be harmful to plants, animals, and humans. These can cause illnesses and even deadly diseases and are called germs or pathogens. They can exist everywhere, including the soil, air, and inside or on the surface of living things. The study of these microorganisms is called **microbiology**.

A microbiolgoist looks at microorganisms using a microscope

Microorganisms

Fungi are responsible for making dead things decay, or rot. Most fungi feed through microscopic threads called hyphae. These threads dig into a food source and release chemicals that break down the food. Then the fungi digest it and use it as nutrients. Fungi feed on dead animals, bird droppings, manure, and fruit. They eat almost anything that was once alive. They are what you see when bread is moldy.



Fungi growing on bread

Fungi in someone's toenail

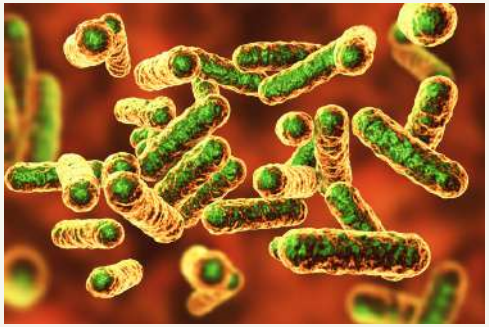
Mushrooms are also fungi

Microorganisms

Bacteria are single-**celled** spherical, spiral, or rod-shaped organisms. They are a few micrometers long. Bacteria can be found everywhere. They are in the soil, air, water, plants, animals, and even humans. There are good bacteria and bad bacteria. Bacteria **reproduce** very quickly and can form billions of bacteria from a single bacterium in just 24 hours. You might be surprised to know that there are more bacteria in your mouth than people on Earth.

spherical bacteria

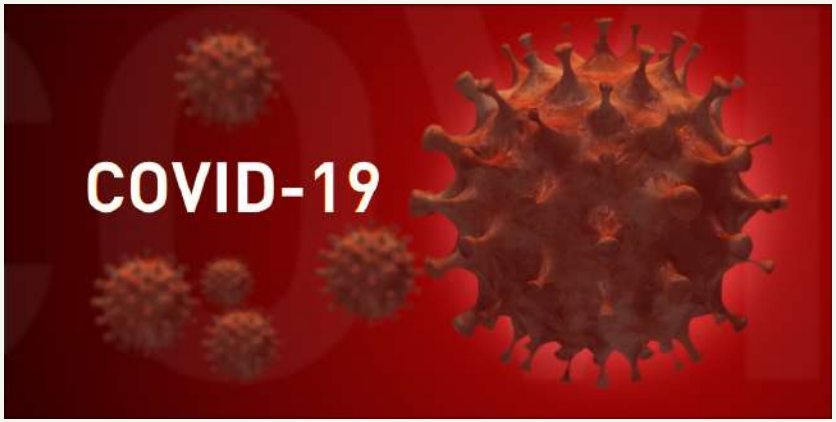
spiral bacteria



rod-shaped bacteria

Microorganisms

Viruses are single-celled microorganisms. They can only survive inside the cells of other living organisms. Once they are inside other living organisms they multiply and cause diseases such as the common cold, influenza (flu), COVID-19, and many others. Viruses are so small that 500 million of them could fit on the head of a pin.

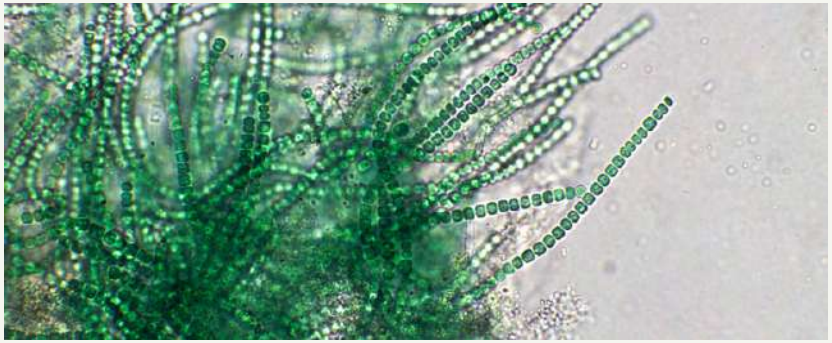


Viruses are the cause of many diseases including COVID-19

Many viruses are contagious and easilly spread

Microorganisms

Algae are organisms that are found all over the world. They are important because they make much of the Earth's oxygen. There are about 27,000 different species or types of algae. They are most common in water but can be found in soil and on leaves, wood, and stones. They can even live on animals such as turtles and polar bears. Algae can be green, blue, red, or brown and vary greatly in size. Some are microorganisms, but others, such as kelp, grow to be 60 meters long.



Algae viewed under a microscope

Algae growing on a turtle

Microorganisms

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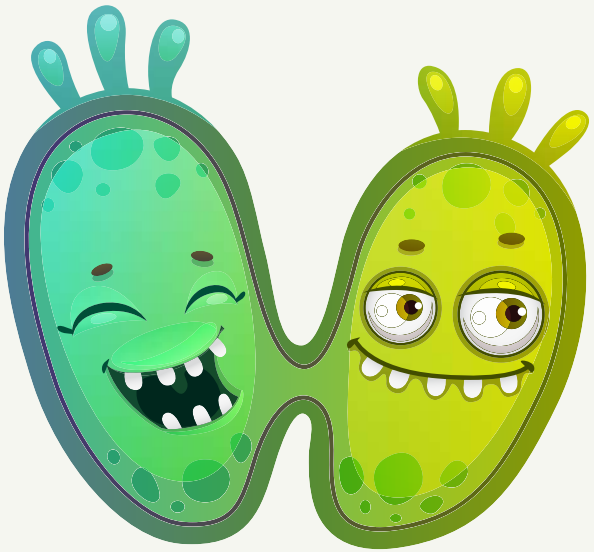
The word protozoa means "little animal." This is because the protozoa Hunt and gather other microbes as food and act like tiny animals. Protozoa mainly feed on bacteria, but they also eat other protozoa and other organic matter. Protozoa have many different shapes, but they are all made up of a jellylike material called cytoplasm. Protozoa are found all over the world and can live on land and in water. Some protozoans are parasites, which means they live inside the bodies of animals, including humans.



Most protozoa reproduce themselves without a parnter by splitting into two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GRAMMAR

Third Conditional

Used to talk about something in the past that did not happen.

if clause (condition),	main clause (result)
If a condition had existed,	the result would have been true
if + past perfect	woud + have + past particple
If I had studied, **If it had rained today,** **I would have told you** **I wouldn't have been happy**	**I would have passed.** **I wouldn't have gone.** **if he had called.** **if I had lost my keys.**


SPELLING

suffix -ward/wards

Adding the suffix **-ward/wards** is used to mean “in the direction of,” either in time or space..

backward
inward
downward
upward
inward
outward
onward

eastward
westward
northward
southward
afterward
homeward
spaceward

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