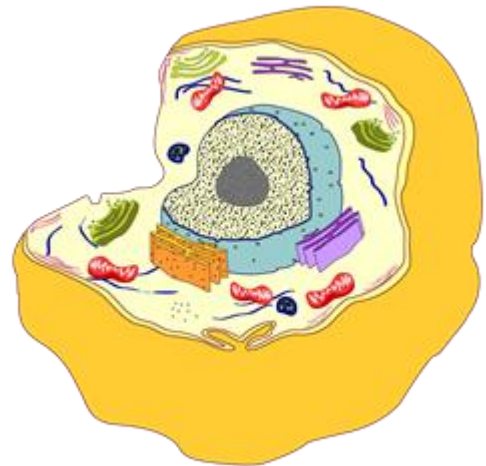
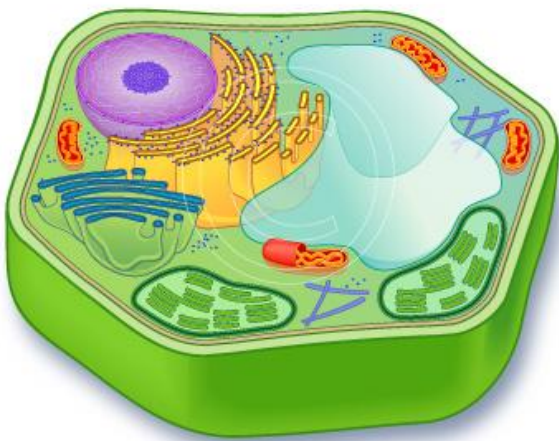


UNIT 1:



**CEIP LAIMÚN
SCIENCE
5TH GRADE
TEACHER: SONIA
SÁNCHEZ BARRANCO**

LIVING THINGS



Vital functions:

- NUTRITION
- INTERACTION
- REPRODUCTION

In nature, there are living things and non-living things.

- **Living things:** people, animals and plants.
- **Non-living things:** rocks, air and wind.

Characteristics:

- They are **born** from other living things.
- They **eat**.
- They **react** to their environment.
- They **grow**.
- They **reproduce**.
- They **die**.



Prezi

PRESENTATION: "CHARACTERISTICS OF LIVING THINGS"

Living things are made up of tiny units called **cells**.

Cells are the smallest living units in a living thing.

Some living things are made up of a single cell. They are **unicellular**.

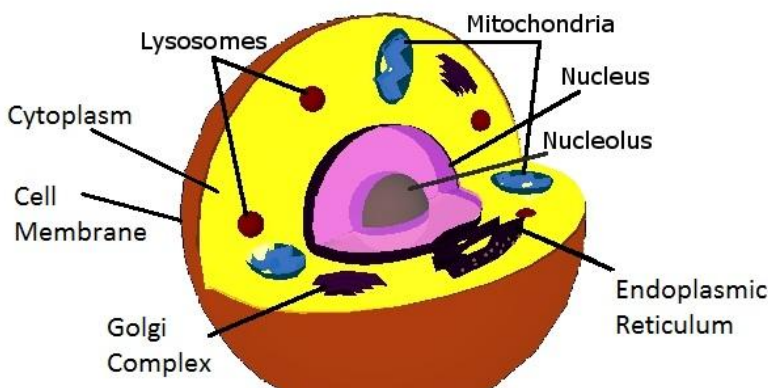
Bacteria are unicellular.

Other living things are made up of many cells. They are **multicellular**.

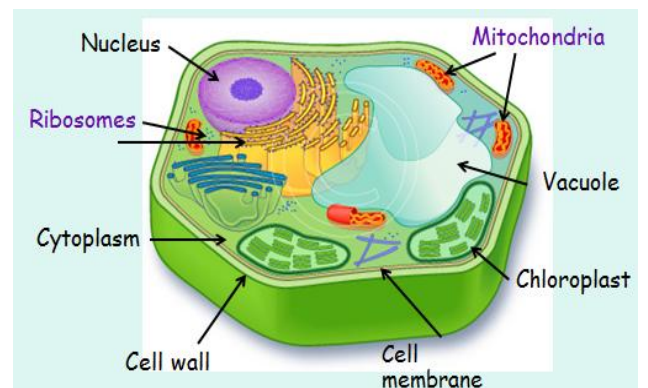
Animals and plants are multicellular.

CELLS

Animal Cell



Plant cell



PARTS OF A CELL

There are a lot of parts and functions to some cells. Here are some of the main components many cells have:

- **Membrane** - This is the covering around the cell. Sort of like the skin. It allows some substances in and keeps others out.
- **Mitochondria** - This is where the cell gets its energy. In the human body, food we have digested reacts with oxygen in the mitochondria to make energy for the cell.
- **Ribosomes** - Ribosomes are like tiny factories that make different things the cell needs to function, like proteins.
- **Nucleus** - It is the part which controls the cell. It uses chromosomes to instruct the rest of the cell what to do next. DNA is inside the nucleus.
- **Cytoplasm** - It is between the nucleus and the membrane. The other components of the cell float around in the cytoplasm. It's mostly water.
- **Lysosomes** - These guys clean up the place getting rid of waste and other unwanted substances that may get into the cell.

The machines inside the cell like the nucleus, ribosomes, and lysosomes are called **organelles**. Plant cells have a hard and rigid wall on the outside of the membrane called the **cell wall**.



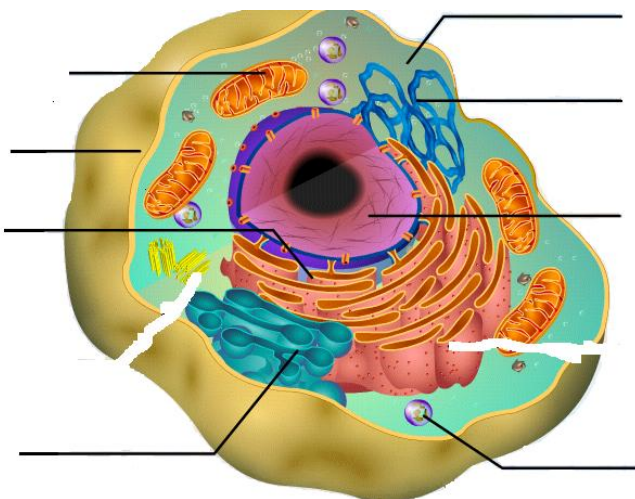
VIDEO:
["ANIMAL CELL STRUCTURE"](#)



VIDEO:
["THE NUCLEUS"](#)

TASK

LABEL THE ANIMAL CELL



- CELL MEMBRANE
- ENDOPLASMATIC RETICULUM
- NUCLEUS
- MITOCHONDRIA
- GOLGI BODY
- RIBOSOME
- LYSOSOME
- CYTOPLASM

The organisation of living things

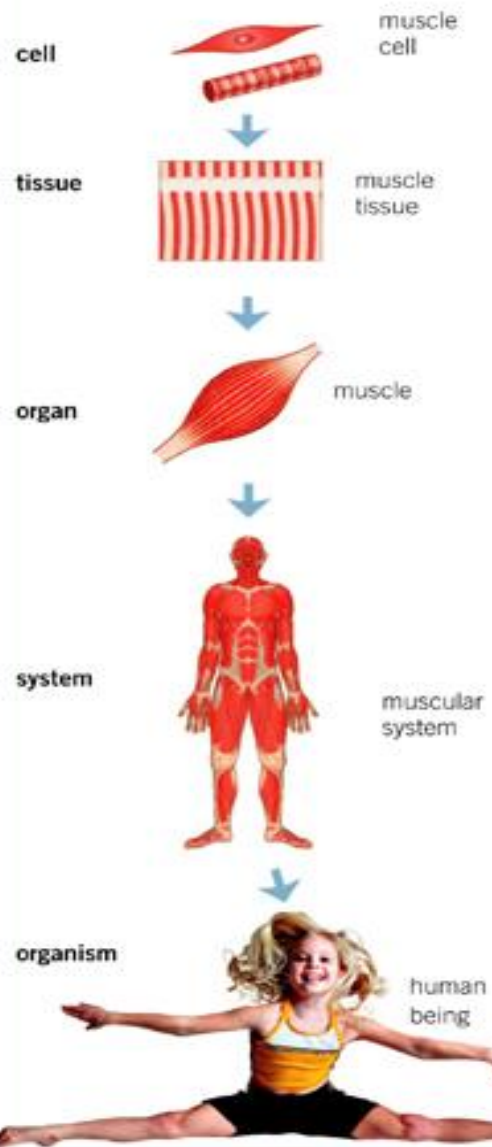


PRESENTATION:
**"THE ORGANISATION
 OF LIVING THINGS"**

Multicellular living things have the following structure:

- **Cells form tissues:**
 - **Tissues**, such as muscle tissue, are made up of **cells** which work together.
- **Tissues form organs:**
 - **Organs**, such as the heart, are made up of **tissues** which work together.
- **Organs form systems:**
 - **Systems**, such as the **digestive system**, are made up of organs which work together.
- An **organism** is a complete living thing: Many systems work together in an organism.

The organisation of living things



TASK

Unscramble these words.

1. A human being is an **NAGROMIS** _____
2. Human beings are **ILTUMRALULELC** _____
3. One type of tissue is **ELSCUM** _____ tissue.
4. Tissues are made up of **SELCL** _____
5. The heart is an **AGRON** _____
6. One type of system is the **VITESGIDE** _____ system.

Fun Facts About Cells

- They were discovered by the scientist Robert Hooke.
- The largest known cells are ostrich eggs. They can weigh over three pounds.
- When many cells of the same kind are together in a group, it's call tissue.
- The word cell comes from the Latin word cellula, which means small room.

THE CELL SONG

LISTENING!!!

Do you want to sing? Click on this website and learn this song.

THE CELL SONG:

<https://www.youtube.com/watch?v=rABKB5aS2Zg>



SONG:
"CELLS RAP"
Lyric



PRESENTATION:
"PLANT AND ANIMAL CELLS"



THE CELL SONG

I went into a cell, to get out of the rain, and there was the gatekeeper, the cell membrane.

I went into a cell, and what did I see, the mitochondria, it's the energy factory.

I went into a cell, and said "who drives this bus" and found myself talking to the boss, the nucleus.

I went into a cell, to recover from a spasm, and found myself swimming in some clear cytoplasm.

I went into the nucleus to ask how to get home, and got genetic info, stored in a chromosome.

I went into a cell, and stretching o' so far, was a thin and wavy network, it's called the E.R.

I went into a cell, trying not to be perplexed, by the packaging and sorting in the Golgi complex.

I went into a cell, and said "who makes proteins here?" and somebody responded "it's the ribosome, my dear."

I went into a cell, and was feeling pretty fine, till a lysosome engulfed me, and dissolved me in enzymes.

I went into a cell, and was feeling pretty nimble, till a centriole lassoed me, tying me up in a spindle.

I went into a plant cell to see how trees get so tall, and all around the outside was a rigid cell wall.

I went into a plant cell, "why's it so green I asked?" "Cause I make food from sunlight," said a green chloroplast.

I went into a plant cell to see how plant cells store food, when a vacuole informed me that he was the storage dude.

So when you go inside a cell, remember what you see, There's over a trillion cells in both you and me.

Just sing this song if you ever feel confusion, and remember active transport is the opposite of diffusion.

Choose the correct option.

TASK

GAME



1. Living things are made up of tiny / big units called cells.
2. Cells are the smallest units in a living / non living thing.
3. Living things with a single cell are multicellular / unicellular.
4. Skin cells and bone cells are different / the same.
5. Living things made up of many cells are multicellular / unicellular.



PRESENTATION:
"KINGDOMS"

KINGDOMS

Living things are classified into groups called **kingdoms**. The three principal kingdoms are the **animal** kingdom, the **plant** kingdom and the **fungi** kingdom.

KINGDOMS

THE ANIMAL KINGDOM



- Animals are multicellular.
- They eat other living things.
- They can move from one place to another.
- They have a nervous system and sense organs.
- They react to stimuli.

THE PLANT KINGDOM



- Plants are multicellular.
- They use sunlight and substances from the soil and air to make their food.
- They cannot move.
- Plants do not have a nervous system or sense organs. However, they react slowly to some stimuli.

THE FUNGI KINGDOM



- Most fungi are multicellular.
- A few are unicellular.
- They depend on other organisms for food.
- They do not make their own food.
- They are fixed to something. They cannot move.