Draw It
What do all living things have in common? Write as many as you can think of.
Today's Objectives

We will distinguish between living and nonliving things.

We will identify the traits living things have in common and identify what living things need to survive.
Characteristics of Living Things

As we go through this Nearpod, you will take notes in two ways. First, you'll complete the guided notes in your packet. Second, you'll make a simple T-chart in your notebook. The column on the left should say: Living Things Have. The column on the right should say: Living Things Need.
All living things are organized

All living things are made of cells, the smallest unit of an organism that carries on the functions of life.

Each cell has an organized structure and contains instructions in its DNA.
All living things grow and develop

When many-celled organisms (like us) grow, it is mostly due to an increase in the number of cells.

In a single-celled organism, growth is due to an increase in the size of the cell.

Development is all of the changes that take place during the life of an organism.
All living things respond to stimuli

All living things interact with their environment

Anything that causes a change in an organism is a stimulus

Many times, this results in movement
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What other responses to stimuli can you think of? It could be any living thing (plant, insect, animal, etc.)
All living things maintain homeostasis

Homeostasis is the regulation of an organism's internal, life-maintaining condition, despite changes in its environment.

Example: human body temperature
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What could happen if we didn't maintain homeostasis?
All living things use energy

The energy most organisms use comes directly or indirectly from the Sun.

Plants use sunlight to make their own food, while we take in food as an energy source. We use oxygen to break down our food to get our energy.
All living things reproduce

Living things reproduce to make more of their kind. Without reproduction, living things would not exist to replace the individuals that die.

Figure 3: Living things reproduce themselves in many different ways.

Beetles, like most insects, reproduce by laying eggs.

Paramecium species reproduce by dividing into two.
All living things need a place to live that is suited to their needs. 

**Water**: Most organisms are made of over 50% water. Water transports materials within and between cells. Most chemical reactions in the body need water.

**Food sources**: Living things are made up of compounds like proteins, fats, and starches. Animals take these in as part of the foods that they eat. Plants and some bacteria make their own.
Is it living or nonliving?

Now you will use Claims Evidence Reasoning (CER) and your notes to prove whether Marty the Martian is right or wrong.