Cells

Name: _____





Life on planet Earth is incredibly varied. There are thousands of different types of creatures and thousands of different types of plants **inhabiting** the planet. For all of this variety, however, all living things share at least one common characteristic. All living things are made of cells.

The cell is often considered to be the "building block of life". In other words, most organisms, whether large or small, are built of millions of individual cells. These cells all work together to allow one single animal or plant to survive.

Most living things are <u>multi</u>-cellular. This means that they have a great many cells all working together. Some living things, though, are comprised of just one single cell. In either case, without cells, nothing would be alive.

In humans and other animals, cells are specialized depending upon where they are located. Skin cells, for example, have special characteristics that allow them to perform the function of skin. Nerve cells, located in the brain and throughout the body, perform a different function, receiving, transporting and interpreting signals from **stimuli**. And the cells that make up the internal organs of animals each have their own special features that allow them to perform their own special functions.

Like humans and animals, plants have cells too. Plant cells are very similar to animal cells in many ways but, because plants function differently than animals, their cells have many features that animal cells **lack**.

The illustrations above show an animal cell (left) and a plant cell (right). Within each of these cells lie small bodies called organelles. Organelles function in a way that is similar to the organs of an animal. Every single cell in every single living thing has its own organelles. Organelles allow cells to breath, take in and excrete waste, reproduce, and even think.

The complexity of cells allow animal and plant life to function and are the key to the survival of life on Earth. By understanding cells and how they work, humans can gain a deeper understanding of themselves and can work to ensure that they can live a rich and full life.

| How many cells do most organi | sms have | ? |
|---|----------|---|
|---|----------|---|

- a. One
- **b.** Hundreds
- c. Thousands
- d. Millions

2. Multi-cellular means:

- a. Many cells
- b. One cell
- c. No cells
- d. Plant cells

3. What is a reason why cells in an organism are different?

- a. They are located in different areas of the organism
- **b.** They perform different functions
- c. All cells are the same
- d. Both a and b

4. Why are plant cells and animal cells different?

- a. Because plants don't eat
- **b.** Plant cells and animal cells are the same
- c. Because plants and animals function differently
- d. Because animals eat plants

5. Describe some of the functions of organelles:

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There are thousands of different types of creatures and thousands of different types of plants **inhabiting** the planet.

- a. dying on
- **b.** eating on
- c. living on
- d. moving to

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Most living things are **multi**-cellular.

- a. one
- **b.** millions
- c. more than one
- **d.** ten

Nerve cells, located in the brain and throughout the body, perform a different function, receiving, transporting and interpreting signals from <u>stimuli</u>.

- **a** sounds
- **b** touches
- c. smells
- d. all of the above

Plant cells are very similar to animal cells in many ways but, because plants function differently than animals, their cells have many features that animal cells <u>lack</u>.

- a. have
- **b.** don't have
- c. keep
- **d.** give away

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Organelles allow cells to breath, take in and **excrete** waste, reproduce, and even think.

- a. take in
- **b.** give off
- c. produce
- d. consume