

Your Body's Building Blocks

Your body is made up of trillions of units called **cells**. Cells are too small to see without a microscope. Even so, each cell has many parts. The **nucleus** is the control center of the cell. It has all of the information about you that your body needs. There is also a jelly-like substance called **cytoplasm** in each of your cells. The cell's activities take place in the cytoplasm. Finally, each cell is surrounded by a **membrane** that holds it together.

Cells take in nourishment from food and eliminate waste. Each cell in your body has the entire plan for your growth and uniqueness! This plan for who you are is known as your **DNA**. Every individual cell in your body contains the unique DNA that makes you who you are. Your DNA is like an instruction book for your cells to carry out the functions that are needed for you to grow and for your body to work. You grew from a single cell into a complex organism of tissues, organs and systems!

When cells combine, they first form groups of cells called **tissues**. There are four different types of tissue: muscle, epithelial (skin), connective (bones and the connections between bones) and nerve. Each type of tissue has a different function. Tissues form larger structures called **organs**. Examples of organs in your body are your heart, stomach, liver and even your skin. Organs work together to form **systems**. Each organ has a different job to within its system, just like each worker has a different job to do in a company.

The systems of the body take care of important jobs. For example, your **digestive system**, which is made up of your stomach, intestines, liver and other organs, turns the food you eat into energy that powers your body. Another important system is your **nervous system**. This system includes your brain and nerves that send messages to every part of your body. These messages control thinking, movement, balance, your ability to speak and your senses. Your nervous system also controls your emotions and your memory. The **cardiovascular system** is made up of the heart and all the veins and arteries that go to and from it. The cardiovascular system pumps blood and nutrients throughout the body. The **respiratory system** is in charge of breathing. It also puts oxygen into the blood so it can be pumped throughout the body. Without oxygen, the body would not be able to produce energy from food and it would not be able to function. Your body is indeed a complex and amazing machine!

Your Body's Building Blocks Questions

1. Your body is made up of trillions of tiny units called
 - a. nerves.
 - b. cytoplasm.
 - c. cells.
 - d. tissues.

2. The command center of a cell is called the
 - a. nerve cell.
 - b. cytoplasm.
 - c. cell membrane.
 - d. nucleus.

3. The plan for who you are is known as your
 - a. cytoplasm.
 - b. DNA.
 - c. brain chemistry.
 - d. nervous system.

4. Which of the following is not an organ?
 - a. heart
 - b. skin
 - c. bones
 - d. liver

5. Which is the correct order from smallest to largest unit?
 - a. cell, tissue, organ, system
 - b. tissue, cell, organ, system
 - c. cell, organ, system, tissue
 - d. cell, organ, tissue, system

6. Which system pumps blood throughout the body?
 - a. respiratory system
 - b. nervous system
 - c. cardiovascular system
 - d. digestive system

Your Body's Building Blocks Questions (Cont'd)

7. The system that turns food into energy is the
 - a. respiratory system.
 - b. nervous system.
 - c. cardiovascular system.
 - d. digestive system.

8. When you take a deep breath, you are using your
 - a. respiratory system
 - b. nervous system
 - c. cardiovascular system
 - d. digestive system

9. The respiratory system
 - a. moves nutrients into the blood.
 - b. puts oxygen into the blood.
 - c. pumps blood.
 - d. none of the above

10. What is needed for the body to produce energy from food?
 - a. the respiratory system
 - b. oxygen
 - c. the digestive system
 - d. all of the above

Name _____

Date _____

Your Body's Building Blocks Answers

1. c
2. d
3. b
4. c
5. a
6. c
7. d
8. a
9. b
10. d