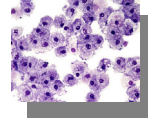




## “Cells”

Reading Comprehension – Informational Passages <sup>(5)</sup>



*Directions: Read the passage. Then answer questions about the passage below.*

Your body is made of trillions of tiny living things. They are called cells. There are 210 different kinds of cells in your body. Each kind of cell has a different shape. Each kind of cell is a different size. Each kind of cell has a different job. The same types of cells usually work together in groups. The groups are called tissues. More cells can be made when the cells split. They form more cells that are just like the parents.

Some of your cells are nerve cells. They are also called neurons. They carry **signals** through your body. The signals are messages that tell your body to move. Your brain has about 100 billion neurons! The connections between neurons are called synapses. Each neuron has between 1,000 and 10,000 synapses. There are about one quadrillion synapses in your brain. That's 1,000,000,000,000,000 synapses in your brain! There are about 1 billion neurons in your spinal cord, the bundle of nerves that goes from your brain all the way down your back.

Some of your cells are red blood cells. They carry oxygen (O) through your body. They pick up carbon dioxide (CO<sup>2</sup>) and help your body **get rid of** it. Your body wants to eliminate CO<sup>2</sup> because it is a waste product. Blood also helps your body stay warm. Conversely, blood cools off your brain, because it gets very hot.

Some of your cells are white blood cells. The white blood cells help your body fight sickness. Some of the white blood cells, called T-cells, fight viruses and other cells that do not belong in your body. T-cells work with B-cells to fight off the disease cells. They tell your brain to give you a **fever** so the disease cells will not be able to grow. Many diseases cannot grow when your body is hot. And some white cells eat disease cells! Go white blood cells!

Some of your cells are bone cells. They are also called osteocytes. Osteocytes make bone. The bone grows to form all around them. The osteocytes get food through tiny strings that go to nearby blood vessels. Blood vessels are the tubes that carry blood in your body.

Some of your cells are skin cells. They are also called epithelial cells. They grow your skin. Your skin keeps dirt off your tissues. Your skin forms the outside of some **organs**, like your stomach and lungs. An adult has about 9 pounds of skin on his or her body.

Some of your cells are liver cells. They are also called hepatocytes. These cells check your blood. They make sure your blood has the right amount of sugars in it. They also help clean poisons from your body. They help make substances that help your blood to clot, or stick together. They clean alcohol from your body if you drink alcohol or take medicine with alcohol in it.

Some of your cells are fat cells. Their job is to **store** fat. The fat is a place where your body keeps or **stores** energy. The fat pads the organs in your body. The layers of fat also help keep your body warm. Your body weight depends on how fast your body stores fat compared to how fast your body uses up energy.

Some of your cells are muscle cells. Your muscles are made of these cells. They are also called myocytes. Your neurons send the messages to move muscles that are connected to your bones and your skeletal muscles. However, your nerve cells do not tell your heart muscles when to beat. Your heart muscles and smooth muscles have inner signals that tell them to move. Smooth muscles are muscles that you do not have to think about, like the muscles that work in the digestion of food.

Your cells are busy all the time. Even while you are sleeping, your cells are working hard to keep your body alive and healthy.



## Questions:

- 1) What is true about cells?
  - A. Each type has a different shape.
  - B. Each type has a different job.
  - C. Each type is a different size.
  - D. All of the above are correct.
  - E. Both A and C are correct.
- 2) Neurons are important because they...
  - A. carry messages in your body.
  - B. tell your body when to move.
  - C. carry oxygen through your body.
  - D. help your body fight sickness.
  - E. Both A and B are correct.
  - F. Both A and C are correct.
- 3) What kind of cells keep dirt off your body's organs?
  - A. Neurons
  - B. Skin cells
  - C. Epithelial cells
  - D. Red blood cells
  - E. Both B and C are correct.
- 4) What do liver cells do?
  - A. They clear poisons out of your body.
  - B. They pad the organs in your body.
  - C. They tell your heart when to beat.
  - D. They fight viruses in your body.
  - E. They keep your body warm.
- 5) What is an example of smooth muscle?
  - A. The muscles connected to your bones
  - B. The muscles that digest food
  - C. Your arm muscles
  - D. Both A and B
  - E. None of the above

## Vocabulary:

- 1) **Signals** are...
  - A. signs.
  - B. neurons.
  - C. messages.
  - D. Both A and C are correct.
  - E. All of the above.
- 2) If you **get rid of** something, you...
  - A. eliminate it.
  - B. destroy it.
  - C. burn it.
  - D. crush it.
  - E. All of the above.
- 3) If you have a **fever**, your body is...
  - A. hot.
  - B. cool.
  - C. quiet.
  - D. in pain.
  - E. Both B and C are correct.
- 4) What is a bodily **organ**?
  - A. Tissues that do a certain job
  - B. A body part that has a task
  - C. Any group of cells
  - D. Both A and B are correct.
  - E. None of the above.
- 5) What is the best synonym for **store**?
  - A. Use
  - B. Keep
  - C. Burn
  - D. Move
  - E. Check