

he Most Amazing Structure on Earth

There are people who say the most amazing structure on earth is the human brain. It is so complex that it took about 700 million years to develop. Humans started out as wormlike creatures that used one end of the body to move forward. Ever so slowly, a bunch of nerves began developing at that one end — the head. These nerves helped the creature to sense light, food and danger. Eventually, this bunch of nerves became the creature's brain. To carry messages from the brain to other parts of the body, the creature grew a spinal cord. Later, the creature became a fish with eyes, ears and a nose that could send the brain information about sights, sounds and smells.

More time passed, and the fish grew arms and legs so it could move about on land. For this, it needed a larger and more complex brain. It became an ape-like creature, and the parts of the brain used for seeing images and being social grew much stronger. Finally, the ape-like creature became human, with a brain that was capable of reason, emotion, creativity, memory and the ability to judge right from wrong.

The human brain is very mysterious. Many questions about the brain have not yet been answered. For example, why do we need to sleep or why do we dream? There is a lot about the brain that we do not yet understand. Believe it or not, people used to think of the brain as useless stuffing. Of course, we now know the brain is our control centre. The surface of the brain is called the cerebral cortex. It is the part of the brain that makes us intelligent, and it consists of four parts called lobes. The front lobe is where much of our thinking and feeling happens. The top lobe processes information which is coming from parts of our bodies, such as our skin and muscles. The side lobe plays an important role in hearing, speech and long-term memories while the back lobe processes images from our eyes.

Which do you think is more powerful: your brain or a supercomputer? You might be surprised to learn that the world's best supercomputer is only about as powerful as half a mouse brain! Your brain is packed with 100 billion brain cells called neurons. They send information to your body telling it what to do, and they receive information from each of your senses, what you see, feel, taste, hear and touch. All of this

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information travels to and from parts of your body along your spinal cord, which is like a highway found down the centre of your back. As the information travels from neuron to neuron, pathways are created. When you think about or practice something again and again, those pathways get stronger. That's how the brain learns and remembers. Actually, you were born with most of the neurons you have now, but when you were a baby, you didn't have many pathways to connect them. As an adult, you now have more than 125 trillion connections between your neurons. No computer on earth can compete with the speed of your brain and how much information it can hold.

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After you have finished reading the text, answer the following questions :

As used in this reading, the words "useless stuffing" refer to _____ .

- A. unimportant lobes on the surface of the cerebral cortex
- B. unused or new neurons inside the brain
- C. unimportant material

People who injure the side lobe of the cerebral cortex _____ .

- A. may not be able to feel happiness or sadness as well as other people
- B. may have trouble remembering things
- C. are usually not very intelligent

The top of the cerebral cortex _____ .

- A. processes sounds that people hear
- B. processes images from our eyes
- C. processes things that people touch

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The cerebral cortex consists of _____ .

- A. four parts called neurons
- B. four parts called lobes
- C. useless stuffing

The brain's neurons use the spinal cord like a _____ .

- A. highway
- B. pathway
- C. map which shows the locations of different parts of the body

Adult humans have _____ connections between neurons.

- A. 700 million
- B. 100 billion
- C. 125 trillion

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What is the main idea of the third paragraph?

- A. ☐ The cerebral cortex has three parts.
- B. ☐ People used to think the brain was not important.
- C. ☐ The cerebral cortex, which has four parts, makes us intelligent.

A mouse brain is _____ .

- A. ☐ about as strong as the world's best supercomputer
- B. ☐ about twice as strong as the world's best supercomputer
- C. ☐ about half as strong as the world's best supercomputer

What is the main idea of the last paragraph?

- A. ☐ The brain's neurons send and receive information throughout the body faster than any computer.
- B. ☐ People are born with most of the neurons they have when they become adults.
- C. ☐ The brain has 100 million cells called neurons.

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1. My wife picked a _____ of flowers from our garden and gave them to her friend.
- A. bunch
 - B. branch
 - C. brunch
2. An animal of any type could be called a _____.
- A. amazing
 - B. spinal cord
 - C. image
 - D. creature
3. You can't learn to play the piano in a short time, but if you practice every day, your skills will _____ improve.
- A. capability
 - B. capable
 - C. eventually
 - D. development
4. Children need exercise and healthy foods in order to _____ their bodies.
- A. judge
 - B. develop
 - C. judgement
 - D. creativity

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5. Machines that have many parts are _____ .

- A. capable
- B. complex
- C. structure
- D. bunch

6. Love and hate are two opposite _____ .

- A. emotions
- B. nerves
- C. emotional
- D. structures

7. A long, thin animal with a soft body and no arms or legs could be described as _____ .

- A. complex
- B. capable
- C. spinal cord
- D. wormlike

8. _____ means able to do something.

- A. Judge
- B. Creativity
- C. Emotion
- D. Capable

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9. The Eiffel Tower in Paris, France, is a _____ that thousands of tourists visit each year.

- A. image
- B. complex
- C. amazing
- D. structure

10. _____ carry messages from your brain to your body.

- A. Create
- B. Nerves
- C. Judges
- D. Creativity

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