

Nervous System

Day 1:

Nervous System

Central Nervous System

Peripheral Nervous System

Senses

Nervous System

- ▶ The function of the nervous system is to send and receive messages that control your body's activities. Such as walking, breathing, and thinking.
- ▶ The nervous system has two different major parts. The two parts are the Central Nervous System (CNS) and the Peripheral Nervous System (PNS).
- ▶ The nervous system is a highway, messages travel along this highway passing information to and from the two systems.

Nervous System

The nervous system is made of:

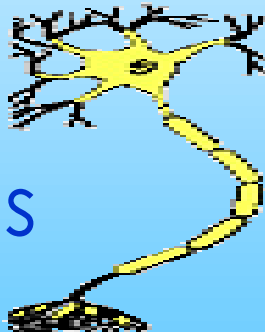
The brain



The spinal cord



The nerves



Nervous System

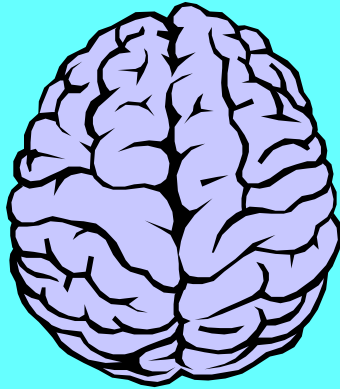
The nervous system is a highway, messages travel along this highway passing information to and from the two systems.

The Nervous System has two major parts:

Central Nervous System

Peripheral Nervous System

Central Nervous System



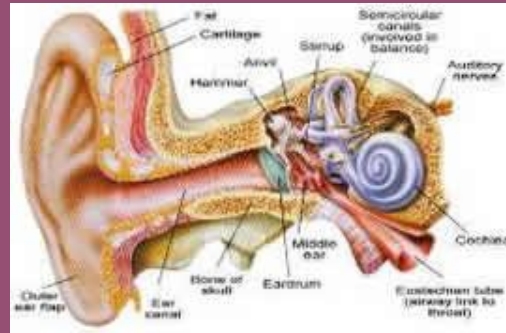
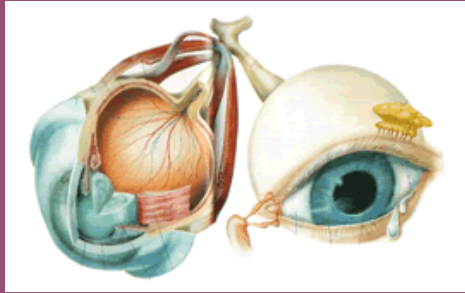
The brain and spinal cord make up the central nervous system. The Central Nervous System is the processing center of the nervous system, it is like a big computer.

Peripheral Nervous System

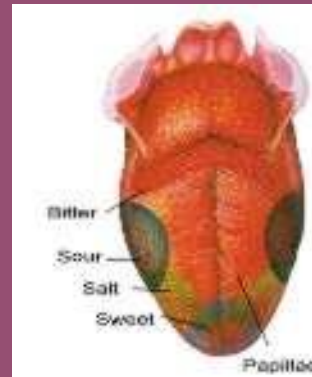
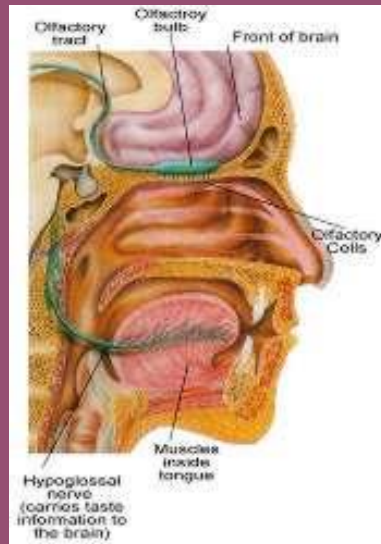
Is made up of many nerves.

The job is to send information gathered by the body's sensory receptors to the central nervous system as quickly as possible.

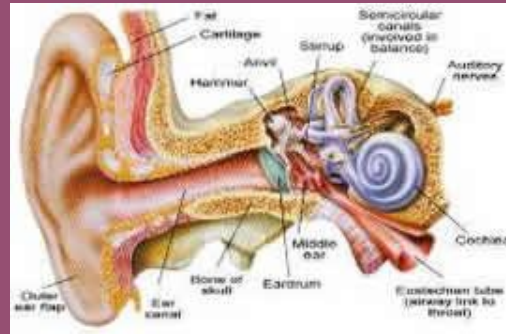
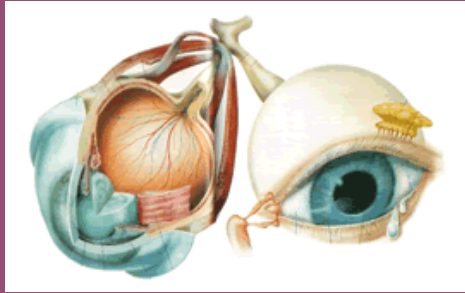
5 senses



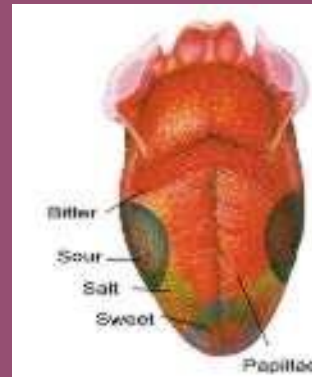
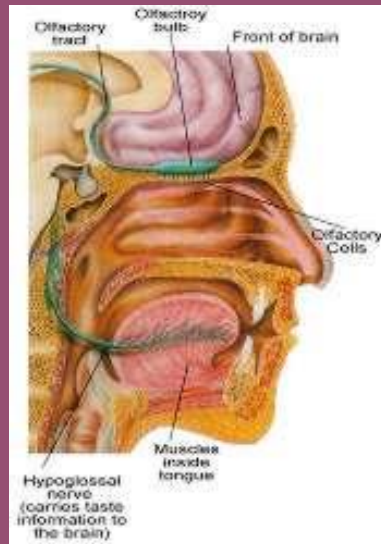
Nerves carry messages about the environment to the central nervous system.



5 senses



- 1) Smell
- 2) Sight
- 3) Taste
- 4) Touch
- 5) Hearing



Nervous System

The Nervous System Animation Video



How do the senses work?

1. Stimuli from the sense organs change to electrical signals.
2. The nerves carry these electrical signals to the brain and spinal cord.
3. The brain decides what the stimulus is and how to respond to it.
4. Nerves then carry the response or what to do message away from the brain.

The message is delivered to the part of the body that will respond to the stimuli.

Parts of the Nervous System

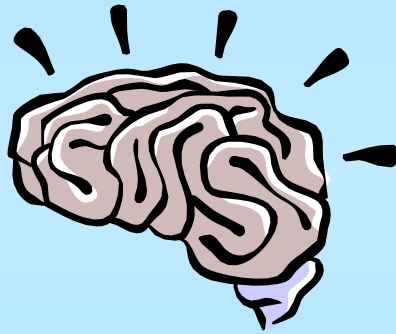
Day 2:

Brain, Spinal Cord, Nerves

Nervous System

The nervous system is made of:

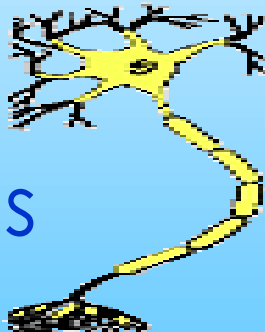
The brain



The spinal cord



The nerves



Nervous System

The nervous system is a highway, messages travel along this highway passing information to and from the two systems.

The Nervous System has two major parts:

Central Nervous System

Peripheral Nervous System

Nervous System

Central Nervous System:

Is made up of the brain and spinal cord.

The Central Nervous System is the processing center of the nervous system, it is like a big computer.

Peripheral Nervous System:

Is made up of many nerves.

The job is to send information gathered by the body's sensory receptors to the central nervous system as quickly as possible.

The Brain



control center of the body.

controls the body functions by receiving and sending out messages to tell it what to do.

The Spinal Cord



bundle of nerves that connects your brain to your body.

Sends messages to the brain

It is found down the center of your back and runs from the base of your brain down to your tailbone.

The Spinal Cord



Your spinal cord is a bundle of nerves that connect your brain to your body.

It can be found down the center of your back.

It runs from the base of your brain down to your tailbone.

The Spinal Cord

- The spinal cord is protected by 33 bones called vertebrae. Branching out from your spinal cord are thirty-one pairs of nerves.
- There are times when the brain does not have time to decide how to respond. In emergencies like this, the spinal cord sends the response even before the brain gets the message. An emergency response to stimuli is called a reflex.

Nerves

Nerve Cells:

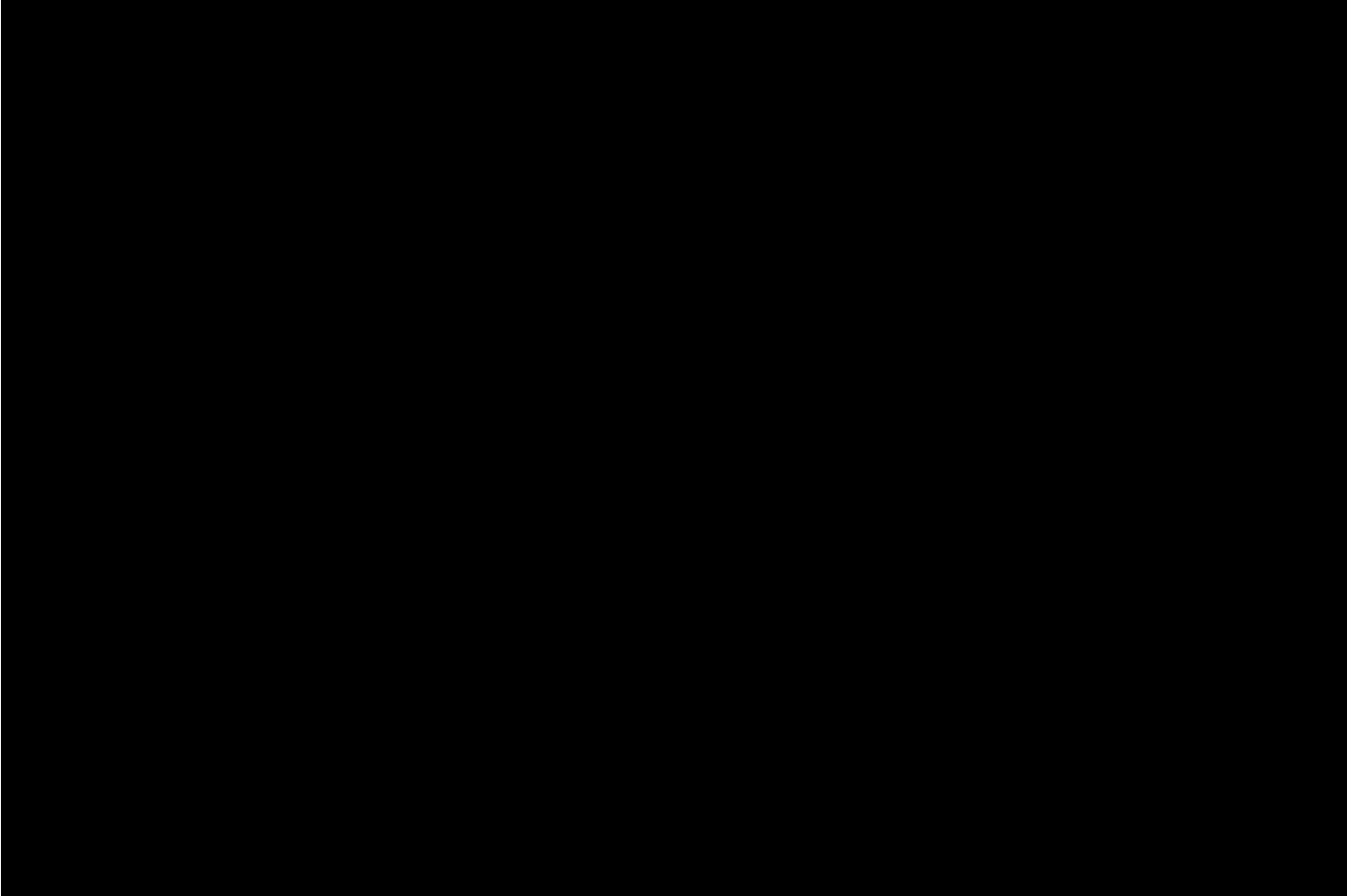
- Nerve cells make up the nerves inside the nervous system. Each one is called a neuron.
- Nerves are tiny fibers that send impulses along your body.
- Nerve cells carry electrical signals to the brain and spinal cord.

Nerves

- The fibers are covered with a substance called myelin. Myelin helps the messages go quickly through the neurons.
- The job of the neuron is to carry messages. Nerves carry messages in one direction only.
- Some nerves carry messages to the brain and spinal cord. Others carry the messages away from the brain and spinal cord.

The Nervous System

- Kids Health Video: The Nervous System



Parts of the Nervous System

Day 3:

Nervous System Formative 1

Brain

The Brain

- control center of the body.
- controls the body functions by receiving and sending out messages to tell it what to do.

Your brain has 3 main parts:

Cerebrum, Cerebellum, and Medulla



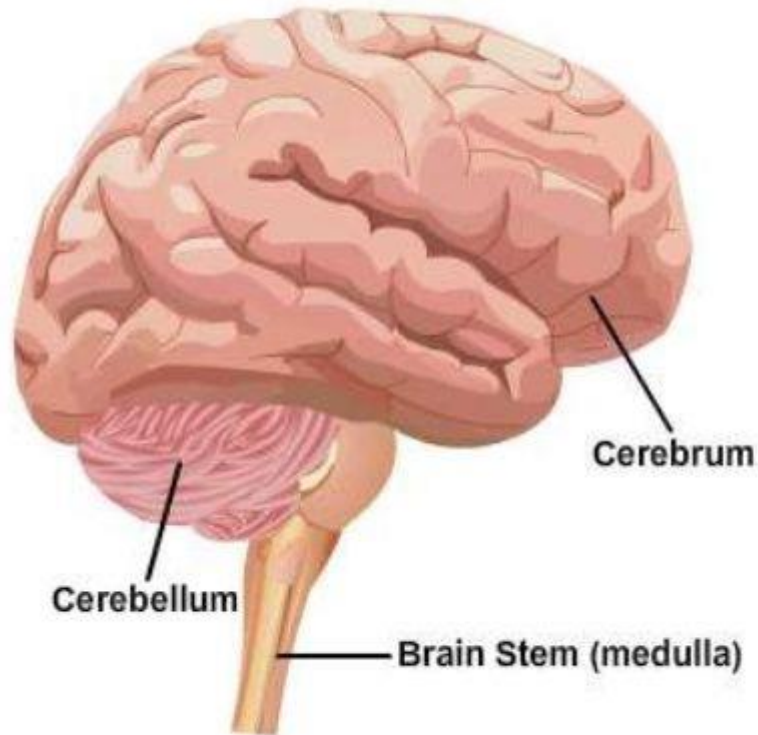
The Brain



Kid's Health Video: How the Brain Works



Parts of the Brain



Three Main Parts of the Brain

Cerebrum, Cerebellum, Medulla

Cerebrum:

This is the largest part of your brain, making up 85% of the brain's weight. It controls certain voluntary muscles. These are muscles you think about moving.

Running, talking on a telephone and using a computer are examples of voluntary muscle movements. This part of the brain is also in control of our senses, thoughts, memory and learning

Cerebrum:

Also, controls input from your senses, imagination, learning, and memory.

There are two halves of the cerebrum. They are usually called the right or left side of your brain. Scientists know that the right side of the brain controls the left side of your body and the left side of the brain controls the right side of your body.

Cerebrum:

They also think that the right side of the brain controls things like music, color, drawing and shapes and the left side of the brain controls math, problem solving and speech.

You may have heard of someone being described as “right-brained”. This is usually used to describe someone who is creative. If someone is described as “left-brained”, they are usually good at math or solving difficult problems

Parts of the Nervous System

Day 4:

Brain continued

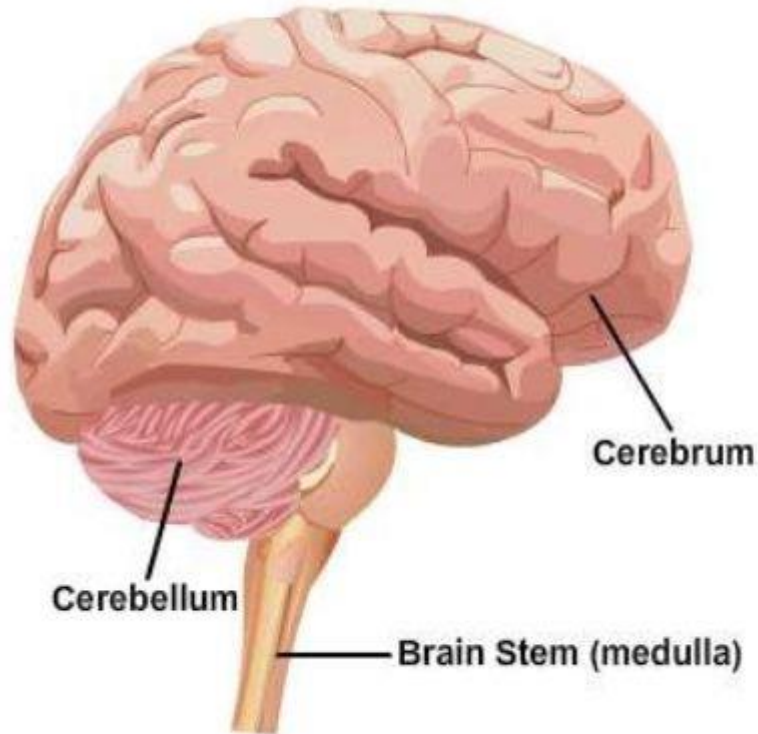
The Brain



control center of the body.

controls the body functions by receiving and sending out messages to tell it what to do.

Parts of the Brain



Three Main Parts of the Brain

Cerebrum, Cerebellum, Medulla

Cerebellum :

- This is located at the back of the brain.
- The cerebellum is much smaller than the cerebrum. It is roughly $1/8$ of the size.
- The cerebellum receives controls how the muscles work together. It controls balance, movement, coordination.

Medulla:

- The medulla is also known as your **BRAIN STEM**.
- The brain stem is where your brain connects to your spinal cord.
- The medulla or brain stem is in charge of involuntary movements.

Medulla:

- Involuntary means that they happen without having to think about it.
- Examples of involuntary movements that the brain stem is in charge of are breathing, swallowing, heartbeat and food digestion.

You learned:

- Your brain is like a central control station for your body.
- There are three main parts to your brain; cerebrum, cerebellum and medulla.
- The cerebrum controls input from your senses, movement, learning and memory.
- The cerebellum controls balance, movement and coordination.
- The medulla or brain stem controls involuntary movements such as breathing, swallowing and heartbeat.

The Brain



The Dr. Binco's Show: How the Brain Works



Nervous System

Day 5:

Nervous System Formative 2

Review

Game: <https://www.playfactile.com/hwnervoussystem>

The Brain



The Brain Song



Nervous System

Day 6:

Summative

Extra Videos