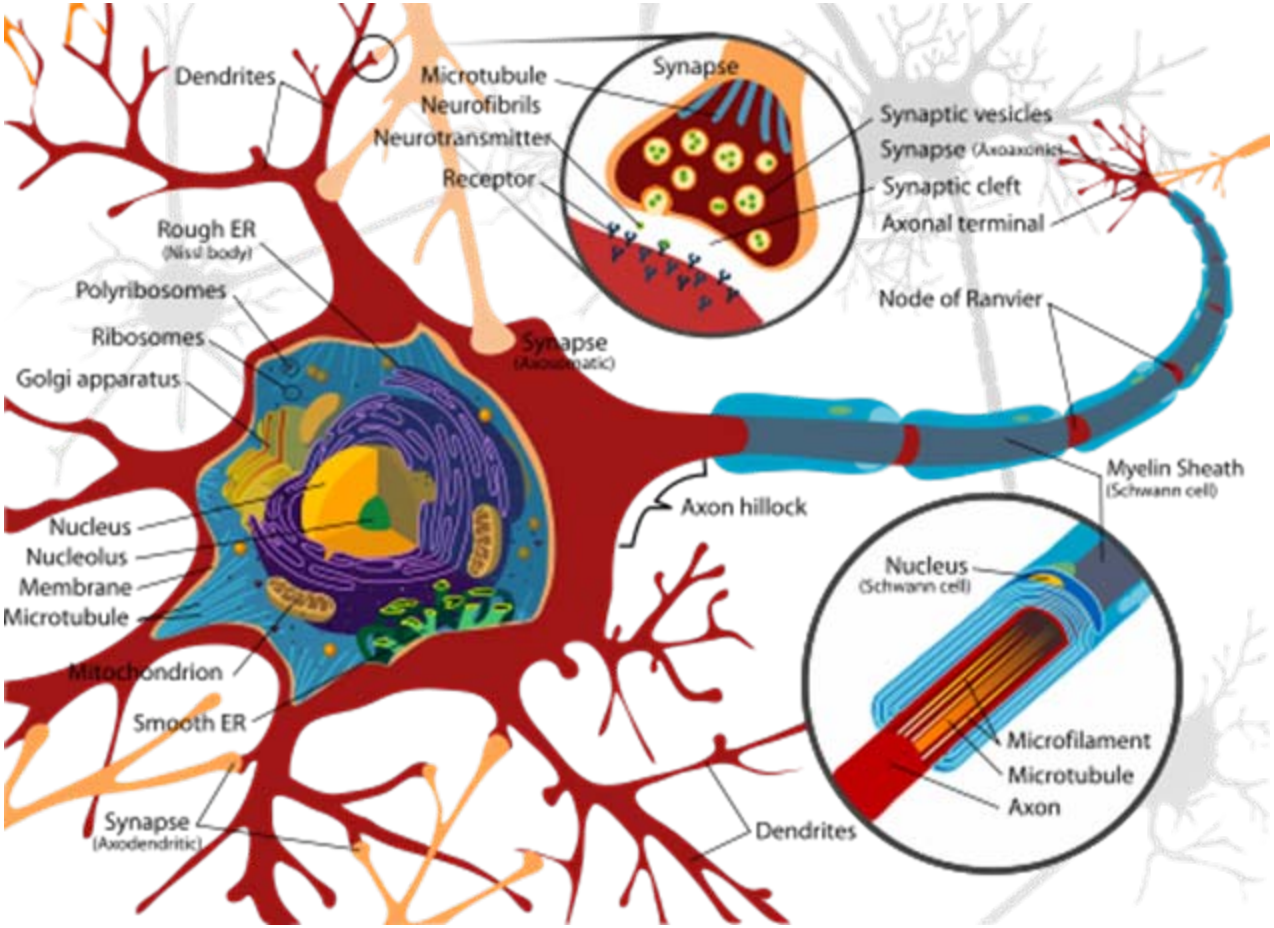
The Nervous System

The Neuron



Functions of the Nervous System

- It **receives** information about what is happening both inside and out side your body
- It directs the way in which your body **responds**
- **Stimulus:** any change in the environment that makes an organism react
- **Response:** is a reaction to a stimulus

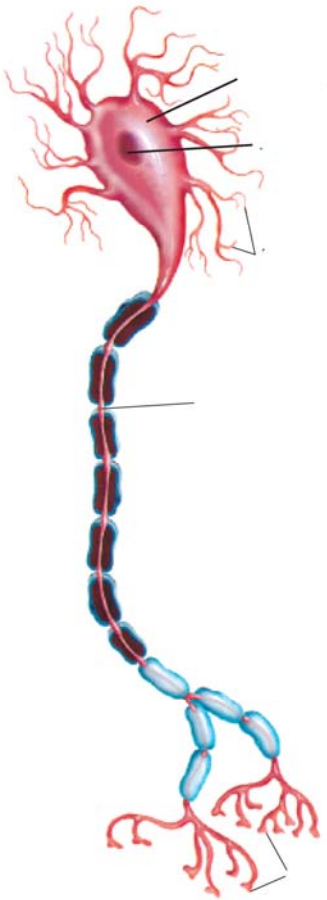
Example of Stimulus & Response

What was the stimulus?

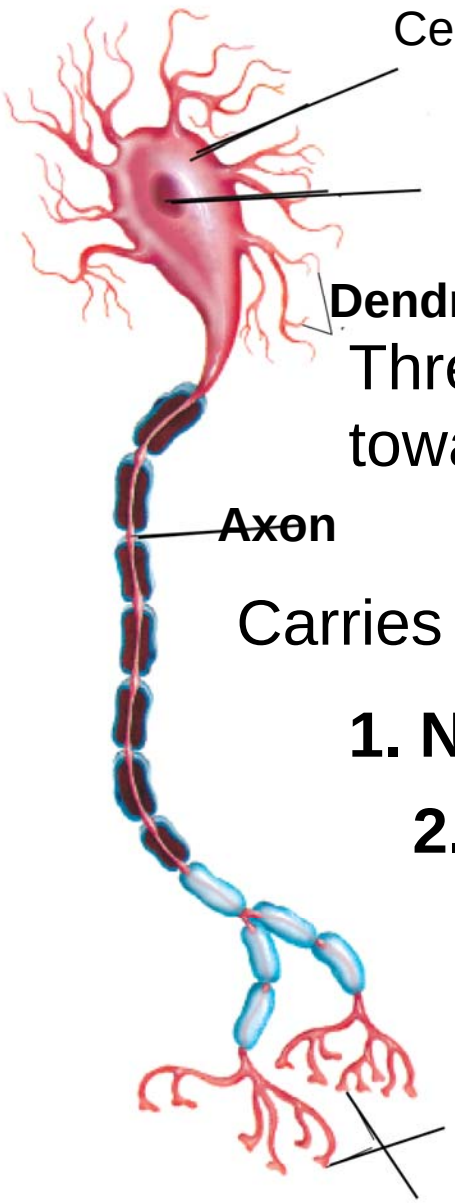
What was the Response?

The Neuron

- **Cells** of the nervous system.
- They carry **information** through out the nervous system
- The information that is carried is called **nerve impulse**.



Structure of a Neuron



Threadlike extensions that carry impulses toward the neuron's cell body.

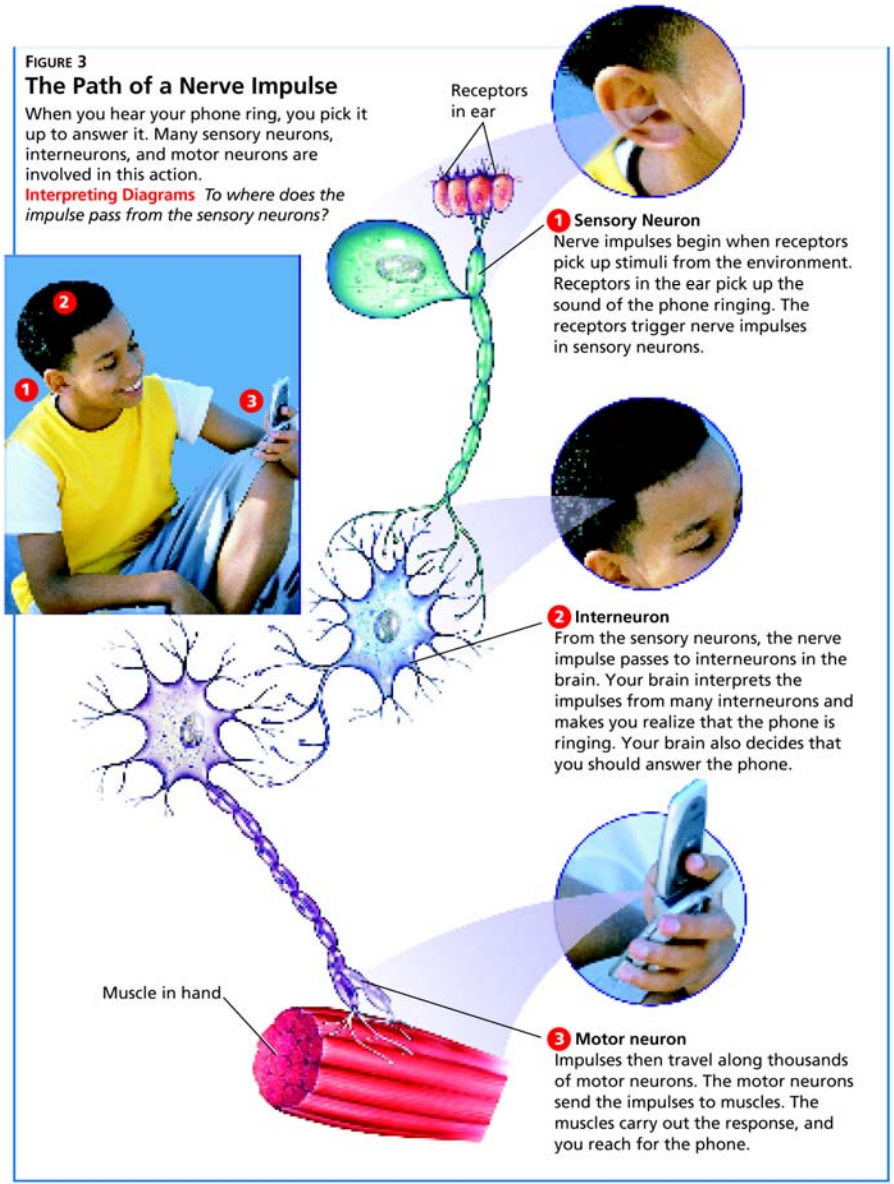
Carries impulses away from the cell body

1. **Nerve impulses begin in a dendrite**
2. **Move toward the cell body**
3. **Then move down the axon.**

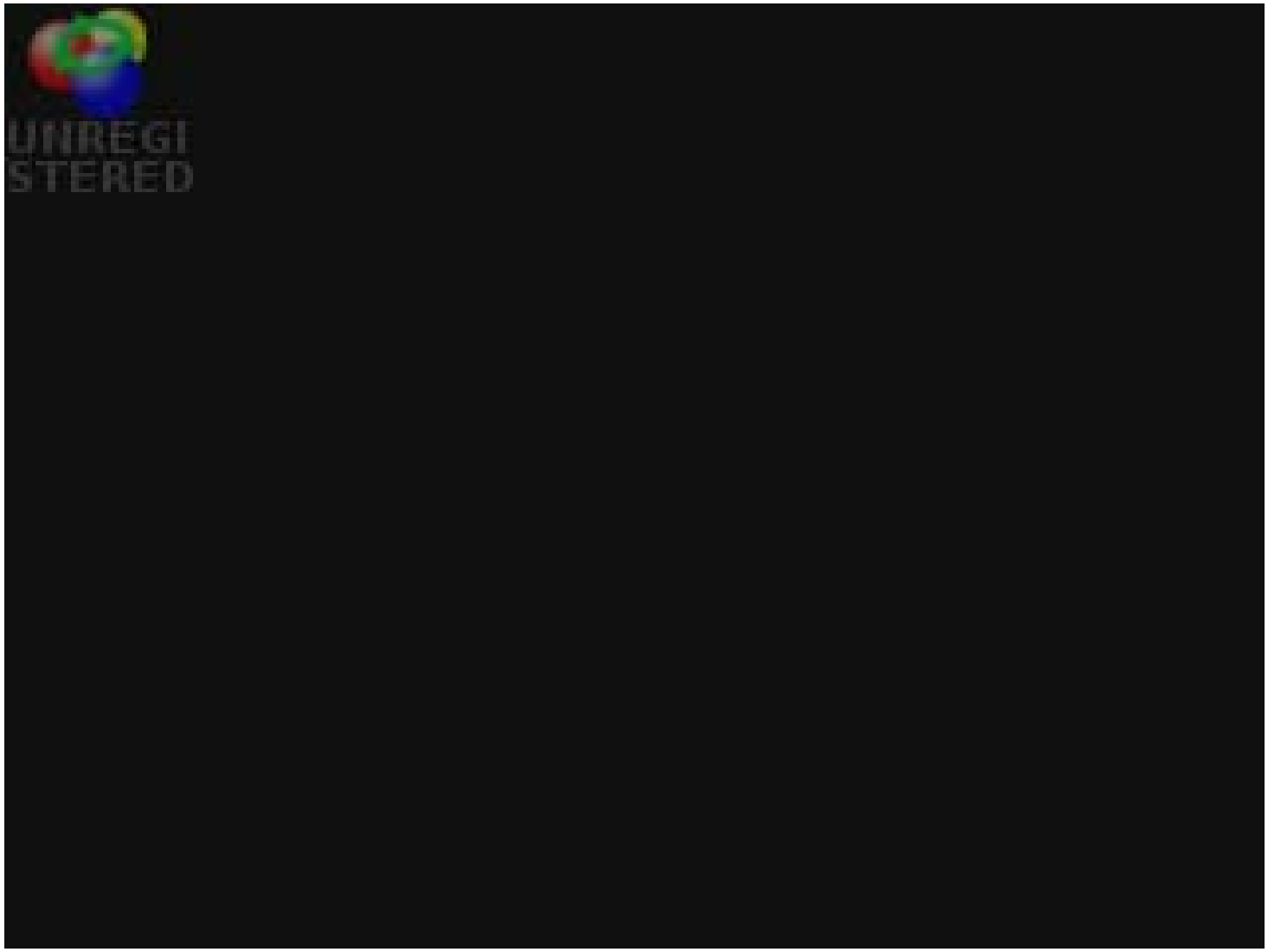
Types of Neurons

- Sensory Neuron
- Interneuron
- Motor neuron

- **Assignment:**
- On the back of this paper copy the Path of a Nerve Impulse, p.179



The Brain

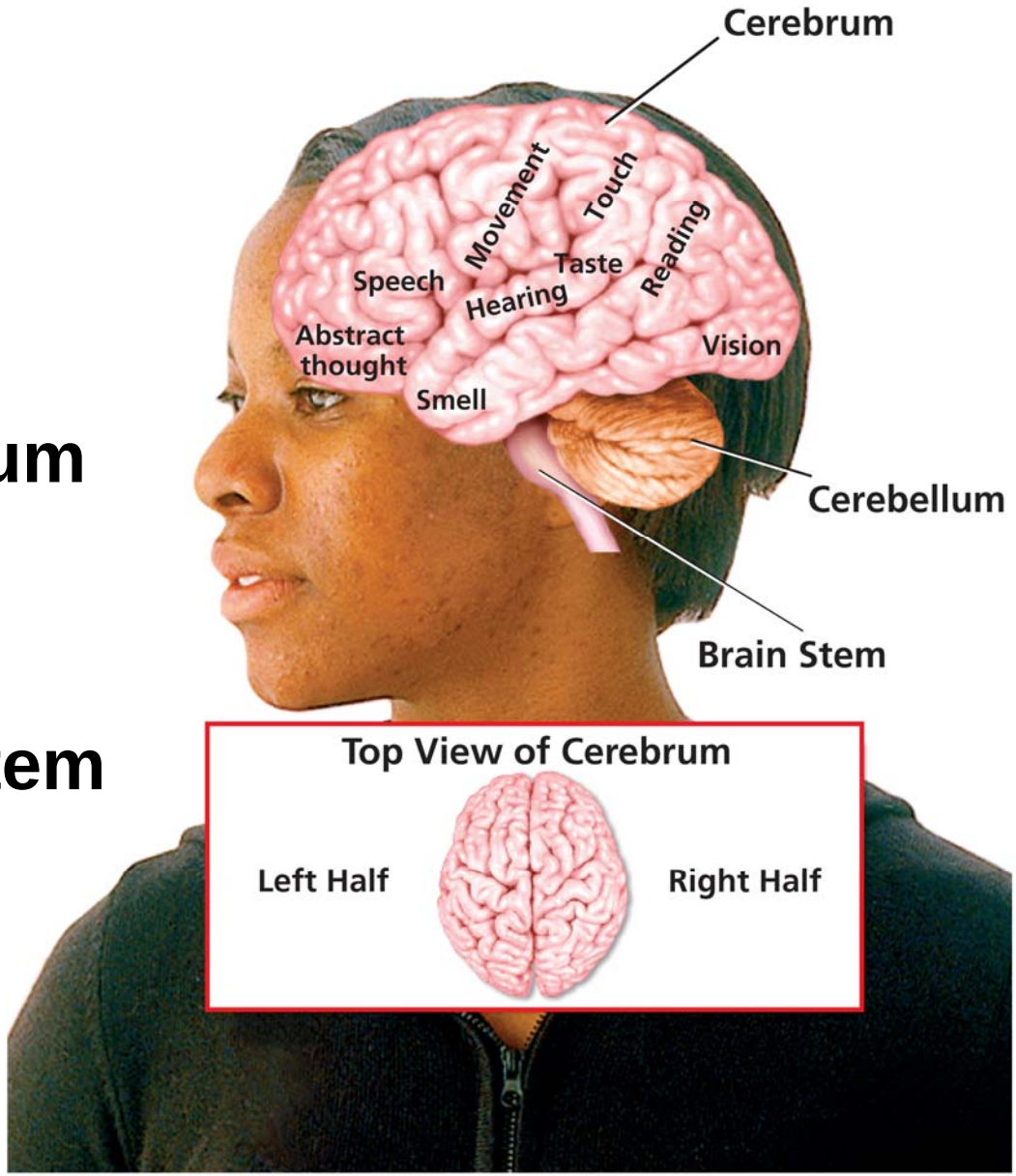


The Brain is made up of three Parts

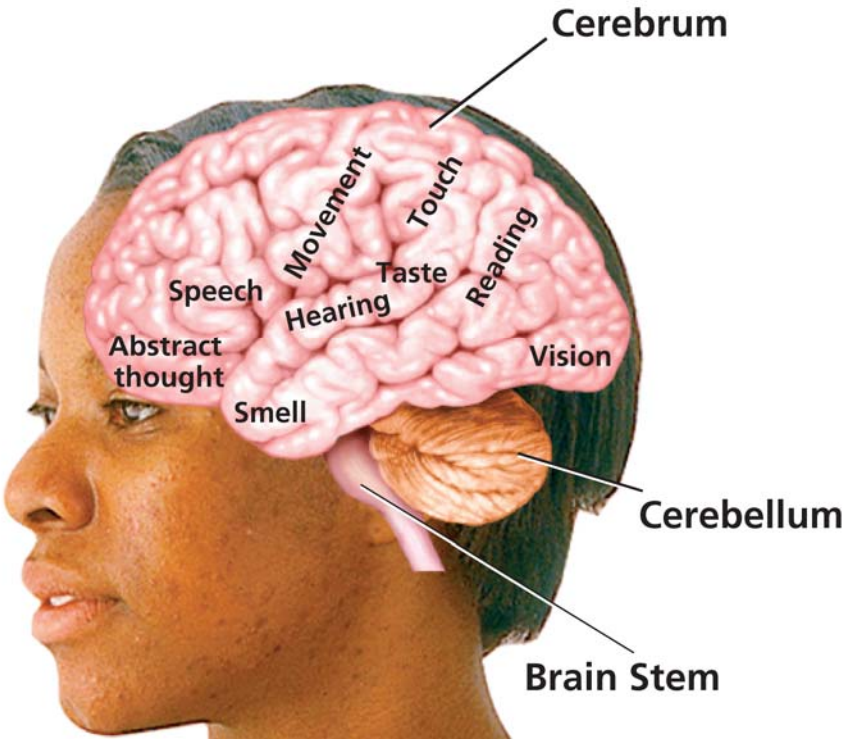
1. The Cerebrum

2. The Cerebellum

3. The Brain Stem



Cerebrum

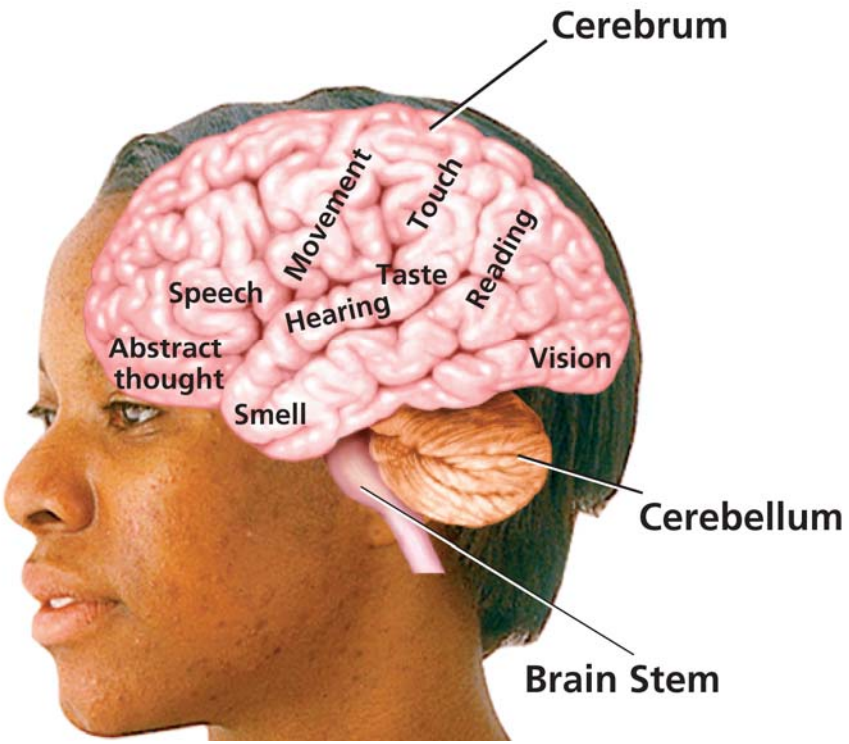


- The largest part of the brain.
- Interprets input from the senses
- Controls movement
- Carries out complex mental processes (learning and memory)

Top View of Cerebrum

- Divided into two halves (Right & Left)
- Right controls muscles on the left of the body
- Left controls muscles on right side of the body
- Right: creativity & artistic ablity
- Left: Mathematical Skills & Logical Thinking

Cerebellum



- Second largest part of the brain
- Coordinates the actions of your muscles and helps you keep your balance

Brain Stem

- Below the cerebellum
- Controls your body's involuntary actions (automatic actions)
- Examples: breathing, heart beating