**6.1 The Nervous System**

**What is the role of the NS?**

* **Receives** info about what is happening both inside and outside your body.
  + Refer to Figure 1 pg. 233
* **Responds** to info, the NS tell your body to react to a stimulus.
* **Maintaining homeostasis** (the state your body needs to be in to function properly)

Ex: When your body gets too hot, the NS tells your brain that your body temp is too high and will react by causing you to sweat.

Ex 2: NS tells your brain that you are hungry when blood’s glucose levels drop.

**The NS:**

**-receives info**

**-responds to info**

**-homeostasis**

**How do the Parts of your NS work?**

The parts of the NS:

1. Neuron
2. The central NS
3. The Peripheral NS
4. **Neuron**=a nerve cell (function: carries nerve impulses(info) throughout the body.

**3 kinds of neurons**

* Sensory neuron-this nerve cell picks up info from sense (stimulus)
* Inter(between)neuron- “middle man”, located in brain/spinal cord. Receives info from sensory neuron and sends to the next.
* Motor neuron- tells your muscle/gland to respond.

Nerve- bundle of nerve fibers

Synapse- the location where a neuron transfers an impulse to another neuron/structure.

\*\*Complete figure 3 pg. 236

1. **The Central Nervous System**

**Brain=**control center

**Spinal Cord=** links the brain and peripheral nerves

\*\*Impulses are sent to and from the brain via (by way of) the spinal cord.

Parts of the Brain:

1. Cerebrum-movement, learning, remembering, interprets input from your senses.
2. Cerebellum- muscles and balance
3. Brain stem- involuntary actions ex: breathing, digestion
4. **The Peripheral Nervous system**

a system of nerves that branches out from the central nervous system and connects it to the rest of the body.

2 groups of nerves make up the PNS

Somatic- voluntary actions ex: answering a phone, using a fork

Autonomic- involuntary ex: digestion

**Reflexes-** automatic response that occurs rapidly without conscious control.

\*\*complete pg. 240 assess the understanding

**What do your senses do?**

\*\*Your eyes, nose, ears, mouth, and skin are specialized sense organs that enable you to get info from the outside world.

Eyes/sight: works by responding to light. They convert that stimulus into impulses that your brain interprets, enabling you to see. These cells are located on the retina.

Nose & Mouth/Taste & Smell: work together. Both depend on chemicals in the air or in food. (stimulus) Chemicals trigger responses. Impulses travel to brain and are interpreted as tastes/smells.

Ears/Hearing: Sounds are caused by vibrations of air particles. Ears convert sound waves into nerve impulses that your brain interprets.

Skin/Touch: all areas of the skin. All touch receptors are located in the dermis (the inner layer of skin). \*\*complete pg 243 assess your understanding