**Chapter 5**

**Essential Question: How do the body’s smallest and largest parts work together?**

**Vocabulary:**

*immune system*: helps protect your body from pathogens

*infectious disease*: a disease that can pass from one organism to another.

*involuntary muscle*: muscles you cannot control. Actions such as breathing or keeping blood flowing are involuntary.

*neuron*: basic unit of the nervous system (nerve cell)

*pathogens*: organisms including bacteria and viruses that can cause disease

*vaccine*: medicine that can help protect you from disease. It signals your body to create antibodies to certain pathogens.

*voluntary muscles*: muscles that you can control. Actions such as chewing food or running are voluntary.

**Key concepts to know:**

* Cells are the smallest part of the body. Groups of similar cells form tissues. Groups of similar tissues form organs. Groups of organs form organ systems.
* A group of organs work together to form organ systmes
* The skeleton provides support and protects your organs.
* Calcium is important to build strong bone tissues.
* The skeletal and muscular systems work together to support the body and help you move.
* Cardiac muscle is only found in the heart.
* The respiratory system provides oxygen and removes carbon dioxide from the body.
* The main organ of the respiratory system is the lungs. The diaphragm moves the lungs to help you breathe.
* The heart supplies the body with osygen by pumping oxygen-rich blood around the body.
* The digestive system breaks down food into forms your cells can use for energy.
* Most digestion takes place in the small intestine where food is broken down into nutrients.
* Mucus and saliva in your mouth help protect your body by trapping and removing microorganisms. Coughing helps protect your from disease by removing mucus that traps the microorganisms you breathe in.
* Viruses are disease-causing pathogens that are about 100 times smaller than bacteria
* A bandage is used to prevent disease-causing organisms from entering a wound.