**The Seven Characteristics of Life**

**Organization** – all living things are made of one or more cells.

A cell is the basic unit of a living thing. In organisms made of many cells, cells make tissues, tissues make organs, organs make organ systems, and organ systems make up the organism.

A cell provides all the conditions needed for the chemical reactions of living things.

**Energy** – all living things get energy from their environment or surroundings.

All living things need energy to build and maintain cells.

When living things feed they gain energy.

Some of this energy is used in growth.

Living things become larger and more complicated as they grow.

**Respond/Adjust to Surroundings** – respond to stimuli.

All organisms must adapt to their environment to live, reproduce, and survive successfully.

Homeostasis is the ability to maintain constant conditions inside the body.

**Movement** – all living organisms show movement of one kind or another.

All living organisms have internal movement, which means that they have the ability of moving substances from one part of their body to another, including into and out of the body.

Some living organisms show external movement as well – they can move from place to place by walking, flying, swimming, etc.

**Growth and Development** – all living things grow and develop.

A single cell in an embryo can grow and change to perform a specific function – a cell may become a heart cell, skin cell, kidney cell, etc.

A single-celled organism grows larger so that it can reproduce itself by splitting in two.

As living things grow, most go through a cycle of change called development.

**Reproduce** – the process in which organisms produce more organisms like themselves.

All living things can reproduce.

Reproduction is necessary if a group of organisms are going to survive over time.

**Adapt** – Organisms need to be well-suited to living in their environment.

Adaptations happen throughout generations of organisms and are a part of evolution.

Adaptations are necessary for a group of organisms to continue to survive over time.

They help protect them from predators and the environmental conditions of the habitat, as well as ensure that they get what they need for life.