**The Characteristics of Living Things Guided Notes**

**All living things share some basic properties.**

* Cellular Organization
* Reproduction
* Metabolism (Obtain and Use Energy)
* Homeostasis
* Heredity (DNA)
* Responsiveness to Their Environment
* Growth and Development
* Adapt Through Evolution
1. **All Living Things are Made Up of Cells**



\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ capable of all life functions

Unicellular Organisms

* Entire organism is made up of \_\_\_\_\_ \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Multicellular Organisms

* The organism is made up of \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_
* Cells have \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ within the organism

**2. All Living Things Reproduce**

Reproduction is the process of producing \_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the same type

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Reproduction

* A single parent organism reproducing \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_



\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Reproduction

* Two different parent organisms contribute \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Involves the combination of male and female sex cells

**3. All Living Things Obtain and Use Energy**

Living organisms need energy to \_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_ complex substances from simpler substances

* Building up cells and cellular components
* Photosynthesis



\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The process of \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_ complex substances into simpler substances to release energy

* Digestion
* Cellular Respiration

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The total of all chemical reactions in an organism

* Anabolism + Catabolism = Metabolism

**4. All Organisms Maintain Homeostasis**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_ a stable state of conditions in the body that are necessary for life

* Body temperature
* Blood volume
* pH balance
* Water balance

**5. All Organisms Pass Along Hereditary Traits**

\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_ carry hereditary information

Genes are composed of \_\_\_\_\_\_\_\_\_

Heredity is the reason children resemble their parents

Mutations change DNA code and can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from generation to generation

**6. All Living Things Respond to Their Environment**

\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ \_\_\_ \_\_\_\_\_\_\_\_\_\_:An example is a plant’s leaves and stems growing toward light

* Light
* Temperature
* Odor
* Sound 
* Gravity
* Heat
* Water
* Pressure

**7. All Living Things Grow & Develop**

Growth means to \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

Development \_\_\_\_\_\_\_\_ \_\_\_ \_\_\_\_\_\_\_\_\_ in the physical form or physiological makeup of an organism

**8. All Living Things Adapt to Their Environment Through Evolution**

Adaptation

* A process that enables organisms to become \_\_\_\_\_\_\_\_ \_\_\_\_\_\_ to their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Species obtain adaptations through \_\_\_\_\_\_\_\_\_\_\_\_\_\_ over \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ periods of time

An Example of Adaptation

Desert plants have succulent waxy leaves and stems to store water and reduce water loss