**Chapter 2: Living Things**

**Section 1: What is Life?**

|  |  |
| --- | --- |
| Main Ideas  1. All living things share cellular organization, contain similar chemicals, use energy, respond to their surroundings, grow and develop, and reproduce. |  |
| 2. Living things come from other living things through reproduction. |  |
| 3. Living things need water, food, living space, and stable internal conditions to survive. |  |
| Key Terms |  |
| Organism:  Living things.  Organisms are living things. |  |
| **Cell**  The basic unit of structure and function in an organism. They are so small that you need a microscope to see them. |  |
| **Unicellular**  Single-celled organisms that include bacteria, the most numerous organisms on Earth. They are made of only one cell. Wow! |  |
| Multicellular  An organism that is composed of many cells that are specialized to do certain tasks. |  |
| Stimulus  A change in an organisms surroundings that causes the organism to react, it can include change in temperature, light, sound, and other factors. |  |
| Response  An action or change in behavior. |  |
| Development | The process of change that occurs  during an organism’s life to produce a more complex organism. |

|  |  |
| --- | --- |
| Chemicals of Life  Water, the most abundant chemical in the cell.  Carbohydrates, the cell’s main energy source.  Proteins, the building materials of the cells.  Lipids, the building materials of the cells. | Water    Carbohydrates    Proteins    Lipids |
| Nucleic Acids , the genetic material-the chemical instructions that direct the cell’s activities. | Nucleic Acids |
| Spontaneous generation | The mistaken idea that living things can arise from non-living sources. |
| Autotrophs | (auto= self and troph=feeder)  Autotrophs are organisms that can make their own food using energy from the sun. |
| Heterotrophs | (hetero=other and troph=feeder)  Heterotrophs are organisms that cannot make their own food. |
| Homeostasis | Maintaining an internal balance or stable internal conditions. |