Characteristics of Life, Revisited

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| Characteristic of Life | Part of the cell that serves that function | Organ or organ system that supports the cells in that function |
| All living things are made of cells. |  |  |
| All living things move. |  |  |
| All living things reproduce. |  |  |
| All living things respond to the environment. |  |  |
| All living things grow and develop. |  |  |
| All living things have a metabolism. |  |  |

Characteristics of Life, Revisited (possible answers)

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| Characteristic of Life | Part of the cell and how it serves that function | Organ or organ system that supports the cells in that function |
| All living things are made of cells. | * All organelles are part of each cell. | * All organs are composed of different kinds of cells. |
| All living things move. | * Cell membrane is flexible so the cell can move. * Mitochondrion provides energy for movement. | * Muscles move the organism * Nervous system gives instructions to the muscles. |
| All living things reproduce. | * Chromosomes contain the instructions for making new cells. * Ribosomes create protein to use for building material for new cells. | * Reproductive system allows for creation of offspring. |
| All living things respond to the environment. | * Nucleus and the chromosomes direct cell activity to get food, escape predators, find mates. * Cell membrane allows materials in or keeps them out | * The nervous system gives the organism information about what is happening around it and the brain responds |
| All living things grow and develop. | * Chromosomes contain information about how long a cell will live and when it should stop growing and divide. | * Endocrine system and hormones give chemical messages to some of the cells to develop during puberty |
| All living things have a metabolism. | * Chloroplasts create food from light and chemicals for the plant to use * Mitochondrion uses food to provide energy for the cell * Vacuoles store food, water, and waste until needed * Cell membrane lets food, oxygen, and water in and waste out of the cell | * Lungs and respiratory system takes in oxygen for the cells to use and removes waste CO2 * Digestive system takes in food and makes it usable for the cells * Circulatory system moves food, water, and oxygen to the cells, then removes the waste products from the cells * Kidneys and urinary system remove waste from the blood and the body |