Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_

**Body Systems CBA Review**

1. Describe the functions and List the parts of the following systems:

|  |  |
| --- | --- |
| Circulatory | \* Transport blood, oxygen and nutrients to cells and carry away waste\* Heart, blood vessels (arteries, capillaries, and veins) and blood (red blood cells, white blood cells, platelets and plasma) |
| Respiratory | \* Bring oxygen into the body and remove carbon dioxide\* Trachea, bronchi, lungs, alveoli, diaphragm  |
| Skeletal | \* Provides structure and shape for the body, stores minerals, makes blood cells, protection \* Bones, tendons, ligaments, cartilage  |
| Muscular | \* Provide movement\* Muscles (cardiac, smooth, skeletal) and tendons |
| Integumentary | \* Provides vitamin D, protection from injury and infection, prevents water loss, helps regulate body temperature\* Skin (epidermis and dermis), hair and nails |
| Nervous | \* Directs the way the body responds to stimuli, maintains stable internal conditions, receives information about inside and outside the body\* Brain, spinal cord and nerves |
| Endocrine | \* Secretes hormones to regulate long term changes\* Glands (pituitary, adrenal, thyroid, thymus), pancreas, hypothalamus  |
| Reproductive | \* For reproduction, creating and caring for offspring  |
| Digestive | \* Breakdown food into a form of energy the body can use, remove solid waste\* Mouth, esophagus, stomach, small intestine, large intestine, liver, pancreas, gall bladder |
| Excretory | \* Rid the body of liquid waste, filter blood, store waste, regulates water in the body\* Kidneys, ureters, urinary bladder, urethra |

1. What are the structures of the Respiratory system?

Nose/mouth, trachea, lungs, bronchi, alveoli, diaphragm

1. What is sensory input? Using your senses to gather information Give an example of sensory input. Seeing, hearing, tasting, touching, smelling
2. How would a prey animal respond to the stimulus of being chased by a predatory animal? Run away – flight
3. List the levels of organization in living things from smallest to most complex cells, tissue, organ, organ system, organism
4. As the digestive system processes your food, what must occur for the body to be able to obtain the nutrients it needs? Food must be broken down into simpler substances
5. Give some examples of stimuli and responses:

|  |  |
| --- | --- |
| Stimulus | Response |
| Virus/bacteria | Fever |
| Hunger | Eat |
| Spoiled food | Vomit  |

1. Describe a physical change that occurs in the digestive process. Teeth tearing food into smaller pieces
2. Describe a chemical change that occurs in the digestive process. Bile breaking down fat, amylase in saliva breaking down carbohydrates into glucose (sugar)
3. Where does most chemical digestion take place in the body? Small intestine
4. Energy that is stored in food is chemical energy.
5. Describe what happens to a plant that is wilting. Low turgor pressure, not enough water
6. Compare each body system to a part of the cell.

|  |  |  |
| --- | --- | --- |
| Skeletal | : | Cell wall |
| Nervous | : | Nucleus |
| Integumentary | : | Cell membrane |
| Digestive | : | Mitochondria |
| Excretory | : | Vacuole |
|  | : |  |

1. Give an example of 2 body systems working together and explain. Circulatory and excretory=filters blood and gets rid of waste

Skeletal and muscular=movement of the body

1. List the parts of the blood and the function of each.

Red blood cells=carries oxygen and nutrients to cells and carbon dioxide away

White blood cells=fights infection (bacteria and viruses)

Platelets=clots the blood/forms scabs

Plasma=liquid part of blood/aids in digestion

1. How does an animal respond to a viral or bacterial infection? The body will produce a fever Explain how this would help. As the body temperature reaches a high enough temperature, the bacteria or virus will not be able to replicate/reproduce to make more.
2. How would a dog respond to a threat? If a dog is afraid, it will show its teeth to try to intimidate the other organism.
3. If your body increased its metabolism (which is the use of energy), what would happen to your temperature? Your body’s temperature would also increase