|  |  |  |
| --- | --- | --- |
| **Section 3.0:** Healthy human function depends on a variety of interacting and reacting systems. | | |
| **Systems** | All systems have the following characteristics: | |
| **Levels of Organization** |  | |
| **Tissues** |  | |
| **Plant Tissue** | Plants have three kinds of tissue: |  |
| **Plant Organs** | Three plant organs: |  |
| **Animal Tissue** | Animals have four kinds of tissue: |  |
| **Epithelial Tissue** |  |  |
| **Connective Tissue** |  |  |
| **Muscle Tissue** | 3 types: |  |
| **Nervous Tissue** |  |  |
| **Organs** |  | |
| **Organ Systems** |  |  |
| **Digestive System** | Function:  Consists of:  • • • •  • • • • | |
| **Types of Digestion** | Physical/Mechanical:  Chemical: | |
| **Parts of the Digestive System** | Epiglottis:  Peristalsis:  Gastric Juice:  Villi:  3 parts of the small intestine: | |
| **The Respiratory System** | Function:  Consists of:  • • • •  • • • • | |
| **Major parts of Respiration** | External respiration:  Internal respiration: | |
| **Inhalation** |  | |
| **Parts of the Respiratory System** |  | |
| **Gas Exchange Process** | Through **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** inhaled **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** moves from the alveoli to the blood in the capillaries, and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** moves from the blood in the capillaries to the air in the alveoli. |  |
| **Exhalation** |  | |
| **Circulatory System** | Function:  Consists of:  **• • •**  **• •** | |
| **Parts of the Circulatory System** | Atria:  Ventricles:  Right side:  Left side:  3 types:  Distance:  Pulse:  Aorta:  Pulmonary artery:  It is in the capillaries that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ takes place, ridding the cells of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ materials and supplying them with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  Pulmonary vein: | |
| **Blood** | Consists of:  • • •  • • | |
| **Parts of Blood** | Hemoglobin: | |
| **The Excretory System** | Function:  Consists of:  • • • • | |
| **Wastes** | 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ produced by gas exchange. 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ produced when cells break down proteins. 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ produced by chemical reactions in cells. 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is needed but only a certain amount at a time.   *How do we lose water?* | |
|  | | |
| **The Urinary System** | Function:  Consists of:  • • • • | |
| **Parts of the Urinary System** | Renal Artery:  Waste product:  Excreted in three steps:  As \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ enters the kidney, first blood enters a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which filters out \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The impurities move through tubules, while the rest of the blood is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_into the blood. | |
| **The Nervous System** | Consists of:  •  • | |
| **Nervous System** | Neurons:  Neurons receive messages from small branches called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and are then passed to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which carry impulses to dendrites of neighbouring \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | |
| Neuron Basic Structure: Neuroplasticity: | | |
| **The Central Nervous System**  **(CNS)** | Consists of:  • •  Protected by:  • • |  |
| **The Peripheral Nervous System**  **(PNS)** | Consists of:  •  • |  |
| **Sensory Neurons** | Includes: | |
| **Motor Neurons** | Autonomic nervous system:  Somatic nervous system: | |
| **The Brain** | Consists of: | |
| **Parts of the Brain** | Lobes: | |
| **The Digestive System The Respiratory System**  **A drawing of a person  Description automatically generated**  **The Circulatory System The Urinary System**      **The Nervous System**  **The Brain** | | |