**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Notes – Nervous System**

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| What are the two parts of the nervous system? | * Nervous system: * Two parts:  CNS –\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (brain and spinal cord) PNS – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (nerve cells that send messages from \_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the body) |
| How does the Nervous system work? | * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – nerve cells that run through the body   + \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_ messages from muscles and glands   + Over\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_neurons found in our body |
| What are the parts of a neuron? | * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_\_ the information and pass it thru cell body * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – produces the energy to fuel the activity of the cell * \_\_\_\_\_\_\_\_ – carries message \_\_\_\_\_\_\_\_\_\_\_\_ from cell body to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (axon endings) * Axon is protected by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (white, fatty substance; helps protect and speed up messages) * Axon \_\_\_\_\_\_\_\_\_\_\_\_\_\_: The end of the neuron, sends out messages |
| How does it go from one neuron to the next? | * Once a message reaches the axon terminals, it must jump across a \_\_\_\_\_\_\_ * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – the gap that it must jump * It jumps from the axon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the next neuron * If it does not make this jump, the message is lost |
| What types of nerve cells are there? | * \_\_\_\_\_\_\_\_\_\_ – Nerve cells that \_\_\_\_\_\_\_\_\_\_\_ info to CNS (brain/spinal cord) * \_\_\_\_\_\_\_\_\_\_ – Nerve cells that send messages from CNS to PNS (tells muscles/glands what to do) * Something like a concussion can affect this process |
| What are neurotransmitters? | * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ located in axon \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that send messages across the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ * Low levels of \_\_\_\_\_\_\_\_\_\_\_\_ (which controls motor behaviors) could lead to uncoordinated movements—think of Parkinson’s disease |
| What is the CNS? | * Central Nervous System – the \_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ * Spinal cord – protected by bones of spine * Transmits messages between the \_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_/glands throughout the body * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – automatic response to something (hand touches stove) * Message goes through sensory neurons to spinal cord; spinal cord instantly sends message back through motor neurons to remove hand) |
| What is the PNS? | * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Nervous System – Takes messages from \_\_\_\_\_ to the rest of the \_\_\_\_ * Two main divisions – \_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Nervous System |
| What about the somatic system? | * Sends \_\_\_\_\_\_\_\_\_\_\_\_\_\_ messages to CNS (this stove is hot) * Activated by touch, changes in temperature, body position, etc…); \_\_\_\_\_\_\_\_\_ movements |
| What about the autonomic? | * Think ‘\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_’ * Regulates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ necessary for survival (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, breathing, digestion, etc..) * \_\_\_\_\_\_\_\_\_\_\_\_\_\_ divisions – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ * ‘S’ for Sympathetic, ‘S’ for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ * ‘P’ for Parasympathetic, ‘P’ for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| We want to know about the Sympathetic part | * Activated when person is going into action (under \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) * Prepares the body to confront a situation or to run away * “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” response * Example: You see someone in your yard with a gun, how do you respond? * Or you look behind you and see an angry dog? |
| And the Parasympathetic part? | * Restores the body’s reserves of energy when at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; * Heart rate/blood pressure are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, breathing is slowed |