

NAME: _____

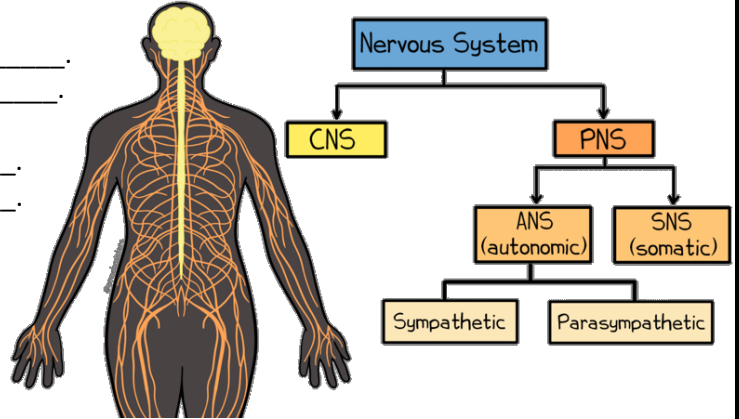
Amoeba Sisters Video Recap: Nervous System

The video mentions multiple divisions of the nervous system as shown in the flow chart below.

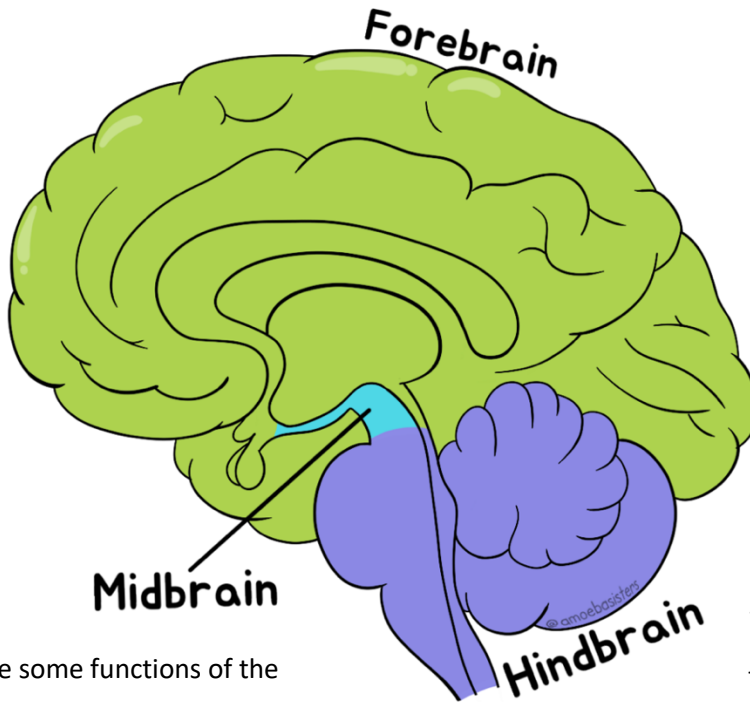
1. **CNS** stands for _____.
It includes the brain and _____.

2. **PNS** stands for _____.
It includes: _____.

3. How do the CNS and PNS work together?



If focusing on the brain (part of the CNS), please complete the following. Remember that these are general areas; more detail could be explored about all of these regions!



5. The **forebrain** includes the **cerebrum**. What are some functions of the cerebrum?

6. The forebrain also includes the **thalamus** and **hypothalamus**. What are some functions of these structures?

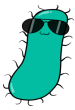
7. The **hindbrain** includes the **medulla**, _____, and **cerebellum**.

4. What are some functions of the **midbrain**?

8. What are some functions of the structures listed above?

9. The term **brainstem** includes the midbrain plus which two structures from the hindbrain?
_____ and _____





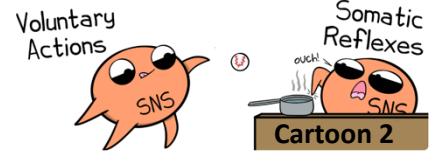
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10. The PNS can be divided into the **autonomic nervous system (ANS)** and **somatic nervous system (SNS)**. How do these cartoons at right illustrate some differences between their functions?



Cartoon 1

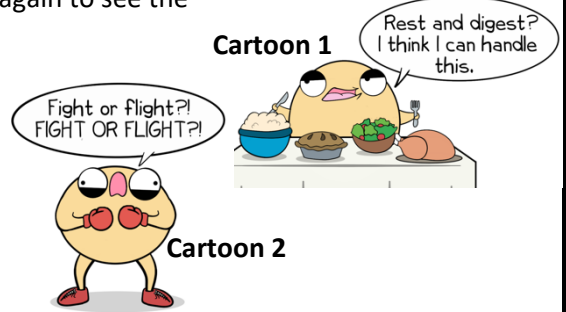


Cartoon 2

The ANS can be further divided. You can look at the very first question again to see the division flow chart!

11. Cartoon 1 at right is representing functions involved in the _____ system.

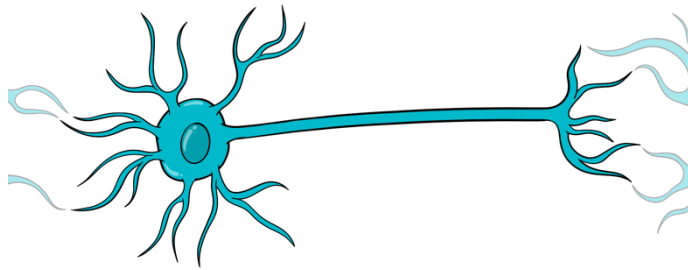
12. Cartoon 2 at right is representing functions involved in the _____ system.



Cartoon 1

Cartoon 2

13. For this image featuring a **neuron**, please label the: **axon**, **axon terminals**, **cell body**, **dendrites**, and **synapse**.

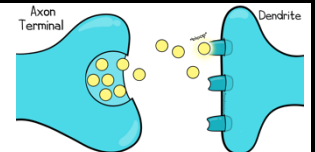


14. Many neurons can be **myelinated**. What does that mean and what is its significance?

15. Neurons can receive a signal in the _____ and carry it down the _____.

16. The **action potential** allows neurons to carry a signal quickly. In 2-4 sentences, briefly summarize what occurs in an action potential.

17. When an action potential reaches the end of the axon, it can signal **synaptic vesicles** to release _____, which can travel the between neurons and signal an action potential in the neighboring neuron.



18. Neurons aren't the only cells heavily involved in the nervous system! **Glial cells** (or **glia**) have many important roles in the nervous system. What are at least 3 functions of glia?

