**The Nervous System**

**Fill- In Notes**

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ where it receives, processes, stores, and transmits information that comes from the body and the outside world
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the basic unit (cell) of nervous system
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are carried throughout the body by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The neurons are the only cells that react to a \_\_\_\_\_\_\_\_\_\_\_\_\_
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is a change in the environment that results in nerve excitation. Example: sun shining in your eyes, or hearing a sound
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are structures that help \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ information between the central nervous system and the various regions of the body
* Neurons must pick up \_\_\_\_\_\_\_\_\_\_\_\_\_\_ , transform them into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and then transmit these impulses on to the next \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is therefore any electric signal transmitted by a neuron
* As signals move from one neuron to another, they must cross the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This is the transition zone between two neurons (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

**Basic Tasks of the Nervous System**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** Monitor both external and internal environments.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** Process the information and often integrate it with stored information.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** If necessary, signal effector organs to make an appropriate response.

**The Central Nervous System**

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is made of the brain and the spinal cord.

The Brain

* The brain controls \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The brain contains more than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (nerve cells) and is the biggest part of the central nervous system!

Parts of the Brain

* The Brain has three main parts…
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (The Brain Stem)

The Cerebrum

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ part of the brain.
* It controls your:
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lobes of the Brain

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is divided into several lobes, each of which is responsible for different tasks
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lobes are responsible for problem solving and judgment and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lobes manage \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, handwriting, and body position.
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lobes are involved with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and hearing.
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lobes contain the brain's \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ processing system.

The Cerebellum

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cerebrum.
* Controls your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The Medulla Oblongata (Brain Stem)

* Connects the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* controls your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Responsible for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ : coughing, swallowing, hiccups, vomiting and sneezing

Grey matter vs White Matter

* The brain can be divided into two types of tissue: grey and white matter
* Grey matter:
  + The part of the brain controlled by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + It is \_\_\_\_\_\_\_\_\_\_ in appearance and is where the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs
  + Makes up \_\_\_\_\_\_\_\_\_ of the human brain and requires \_\_\_\_\_\_\_ of available \_\_\_\_\_\_\_\_\_\_
* White Matter:
  + Composed of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Found in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the brain and between the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Facilitates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between the grey matter of the brain and between the brain and the rest of the body
  + Makes up \_\_\_\_\_\_\_\_ of the human brain

The Spinal Cord

* Connects the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the rest of the nervous system.
* Sends messages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the brain.
* The spinal cord is protected by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Peripheral Nervous System**

* Consists of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reaching all parts of the body.
  + - It has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of nerves
    - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – sending info to CNS
    - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – sending info to muscles

Voluntary Acts

* This system contains the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Responsible for the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of our movement
* Signals from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ effectuate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reflex

* Is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ automatic reaction that happens \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ about it.
* A reflex happens quickly in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.