# The Nervous System

1. The two systems which control the body’s functions are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Control of the body can be active and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or passive and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. The two parts of the nervous system are: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The CNS (Central Nervous System) consists of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. The fluid in your head cavity which cushions the brain is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. The large structure in the middle of brain that connects the two halves is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ controls all thought and conscious activities
8. The two parts of the brain that control involuntary functions like breathing, the heart rate, and balance are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write what the four brain lobes control:

Frontal:

Parietal:

Temporal:

Occipital:

1. The two language areas of the brain:
2. The two motor areas of the brain:
3. The thinking region of the brain:

Write down four brain disorders:

1)

2)

3)

4)

1. The Peripheral Nervous System consists of all your body’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Nerves are made of special cells that conduct electricity and send signals, called \_\_\_\_\_\_\_\_\_\_\_\_\_
3. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ neurons and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ neurons
4. Your sensory organs include:
5. Sensory receptors are special \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in sensory organs that send information back to the brain for interpretation.
6. Neurons act like \_\_\_\_\_\_\_\_\_\_\_\_\_\_, sending electrical \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through the body
7. The parts of the neuron include the cell body with the nucleus, the \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. The small area between the end of the axon and the beginning of the new dendrites is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Chemicals called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are released in the gaps, and circulate in the brain.
10. Electricity is converted to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and then \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ back to electricity. The brain acts like the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which powers this process.
11. You can move because your muscles are attached to the brain with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through the spinal cord.
12. You can sense things (hear, see, feel) because your sensory organs are attached to the brain with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These special cells are shaped differently and are \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, meaning they only sense one thing.
13. A stimulus is interpreted by the brain if it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; this means “yes.” Otherwise it is inactive, which means “no.”
14. The skin has different kinds of sensory neurons which fire if a stimulus is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# VISION

1. Diagram the lens, ciliary muscles, retina, and optic nerve.
2. The special cells in the retina which help you see color are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_
3. Diagram near-sightedness and farsightedness, with the appropriate glasses shape to correct viewing.

# HEARING

1. The outer ear is designed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. The middle ear is designed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. The inner ear controls \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the processing of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The part of the ear that sends signals to the brain for interpretation is the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. The “fight or flight” hormones are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ store hormones and release them.
7. Name the two glands in the brain that release hormones: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name five other hormone-releasing glands or parts:

1)

2)

3)

4)

5)

1. Many hormones work in opposite pairs. Others just “turn off” when blood levels get too high; this turning off is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. The endocrine system keeps the body in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_