



## **Health Smart Virginia - Sample Lesson Plan**

**Grade Level 8**

**Body Systems**

### **Nervous System**

#### **SOLs:**

- The student will identify and explain health concepts to demonstrate an understanding of personal health.
- Student will identify and describe the major structures and functions of the brain and the nervous system

**Title:**     **Major structures and functions of the brain and the nervous system**

#### **Objectives/ Goals:**

- The student will be able to:
  - name and identify the major components of the nervous system,
  - identify the various types of neurons that make up the nervous system, and;
  - label a diagram of a basic neuron.

#### **Materials:**

- Neuron Power Point
- Blank paper
- Color Pencils

## **Procedure:**

- **Introduction:** Students will complete the Neuron pre-assessment (fill in the blank and paragraph) activity.
- **Instruction:** Teacher will review with students the Neuron power point presentation,
- **Guided Practice:** Students will complete the power point study guide during teacher presentation.
- **Independent Practice:** Students will create a drawing of a basic neuron and it's major components including the names of the major anatomical components and their functions.
- Students will label each component with a different color and write the anatomical function with the same color.
- Students will create a summary paragraph explaining how to maintain the health of their neurons and how they plan to incorporate activities to maintain their neuron health.
- **Closure:** Students will complete the post assessment fill in the blank activity.

## **Assessments, References & Sources:**

- Neuron power point presentation
- Neuron power point study student guide hand out
- Student pre and post assessment activity
- Student neuron diagram activity



## Nerve Cell Power Point Study Guide

- What is the function of sensory nerves?

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- List the five senses include their location and their specific name.

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

- Sensory nerves carry nerve impulses to?

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- Motor nerves carry messages from the \_\_\_\_\_ and \_\_\_\_\_ to the \_\_\_\_\_ and \_\_\_\_\_.

- List the major anatomical components of a nerve cell and include its major function.

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



## Neuron Pre/Post Assessment

**Directions:** Complete the paragraph below with words listed in the vocabulary word bank. Each word is used only once.

1) \_\_\_\_\_ are the building blocks of the 2) \_\_\_\_\_. There are three types of nerve cells. 3) \_\_\_\_\_ neurons carry information to the 4) \_\_\_\_\_. 5) \_\_\_\_\_ neurons carry information from the central nervous system to the 6) \_\_\_\_\_. 7) \_\_\_\_\_ neurons carry signals between neurons. The 8) \_\_\_\_\_ of a neuron carry signals to the 9) \_\_\_\_\_. The cell body contains the 10) \_\_\_\_\_ that interprets received signals and sends them to the 11) \_\_\_\_\_ to travel to another neuron. Some neurons are highly specialized. 12) \_\_\_\_\_ neurons help detect the sense of smell. 13) \_\_\_\_\_ help us taste our food. 14) \_\_\_\_\_ neurons carry signals to our brain, so we can hear. 15) \_\_\_\_\_ neurons carry visual information to our brain, so we can see. Specialized neurons located in our skin help us 16) \_\_\_\_\_ temperature and textures. The nervous system is a complex information system using both 17) \_\_\_\_\_ impulses to transmit information to and from the central nervous system.

### Vocabulary Word Bank

electrical and chemical    axon    dendrite    muscles and glands  
interneurons    motor    sensory    feel    olfactory    nucleus  
optical    nervous system    auditory    taste buds    neurons  
central nervous system    cell body