



Grade 8 Sample Lesson Plan: Unit 3 – Major Structures and Functions of the Brain and the Nervous System

SOLs

- 8.1 The student will identify and explain health concepts to demonstrate an understanding of personal health.
- 8.1.A Identify and describe the 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.

Assessment Idea

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

Handout

The next page includes a handout for the lesson. The handout is designed for print use only.



Nerve Cell Power Point Study Guide

- What is the function of sensory nerves?

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

- _____
- _____
- _____
- _____
- _____

- Sensory nerves carry nerve impulses to?

- 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