Health Smart Virginia - Sample Lesson Plan
Grade Level 8
Body Systems

Unit 3  Nervous System

SOLs:

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

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Health Smart Virginia Sample Lessons 2018
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
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.
Define the following neurological diseases?

- Epilepsy
- Multiple Sclerosis
- ALS – Lou Gehrig’s Disease
- Stroke

Summary paragraph

Write a summary paragraph explaining the ways to maintain the health of your nerve cells and how you plan to include those practices into your daily life.
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