Health Smart Virginia - Sample Lesson Plan

Grade 8

Body Systems

Unit 4  Nervous System – The Brain

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

Unit Title: The Brain

Objectives/ Goals:
- The student will be able to:
  o Name and identify the major structures of the brain,
  o Identify the protective structures surrounding the brain,
  o Label a diagram of the brain,
  o Describe the major disease and injuries affecting the brain,
  o Explain how to maintain a healthy brain

Materials:
- Brain Power Point
- Blank paper
- Color pencils
- Copy of the power point study guide
Procedure:

- **Introduction:** Students will complete the Brain concept map pre-assessment diagram.
- **Instruction:** Teacher will review with students the Brain power point presentation,
- **Guided Practice:** Students will complete the power point study guide during teacher presentation.
- **Independent Practice:** Students will create a drawing of the brain 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 brain and how they plan to incorporate activities to maintain their brain health.
- **Closure:** Students will complete the post assessment brain concept map activity.

Assessments, References & Sources:

- Brain power point presentation
- Brain power point study student guide hand out
- Student pre and post assessment brain concept map activity
- Student brain diagram activity
- Student brain health summary paragraph.
Pre/Post Brain Assessment

Directions: Complete the four sections of the brain concept map. Write your answers on the arrow lines extending from the main topic. Use a similar color to write your answers in each section.

Major Parts of the Brain

Tips to Keep Your Brain Healthy

Extend Your Brain

If you can, include additional responses in each section. Simply add additional arrows and responses using a similar color for that section.

Structures that Protect the Brain

Diseases and Disorders of the Brain
The Brain Power Point Study Guide

I. Define and Describe the Primary function of the:

- Parietal Lobe: __________________________________________________________
  __________________________________________________________

- Occipital Lobe: _______________________________________________________
  __________________________________________________________

- Frontal Lobe: _________________________________________________________
  __________________________________________________________

- Temporal Lobe: _______________________________________________________
  __________________________________________________________
Brain Stem: 

Cerebellum: 

Cerebrum: 

II. **Brain Protectors:** Provide a detailed definition

- Skull or Cranium
- Under lying Tissues
- Cerebrospinal Fluid

III. **Brain Diseases:** Describe symptoms of:

- Meningitis
- Encephalitis:
- Parkinson’s Disease: ________________________________
- Brain Abscess: ________________________________
- Alzheimer’s Disease: ________________________________
- Epilepsy: ________________________________
- Stroke: ________________________________
- Brain Tumor: ________________________________
- Autoimmune Conditions: ________________________________
- Lou Gehrig’s Disease: ________________________________
IV. **Brain Injuries:** Explain the following, to include mechanism of injury, signs and symptoms following injury and recovery cycle:

- Traumatic Brain Injury –

- Concussion –

- Symptoms of a brain injury -

V. **Brain Health Summary Activity**

- Write a summary paragraph concerning the ways to keep your brain healthy and young throughout your life.
- Include the ways **you** plan to help keep your brain healthy.
- Provide examples of what you are currently doing to keep your brain healthy.
- Highlight or circle all brain vocabulary words you use in your summary paragraph.