

Student learning outcome (SLO):

<ul style="list-style-type: none"> • Describe the structure of the cerebrum, its division into hemispheres and role of each hemisphere in the control of the body. • Explain and represent how messages flow through the body from and to the brain, and how the brain collaborates with the sensory organs to regulate this process. • Map the various steps in the transmission of messages through the body and to the brain via a reflex arc. 	<ul style="list-style-type: none"> • Describe the role and function of neurons in transmitting messages through the body. • Create a plan of activities to keep the brain healthy. • Predict what happens when a nerve connection broke. • Match various body functions with the relevant part of the brain that controls or regulates them.
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Overview:

The main purpose of this lesson is to help students grasp how the brain and nerves coordinate communication in the body. It fosters an understanding of reflexes, sensory perception, and the role of neurons in transmitting signals.



Introduction:

Lead the students in learning about,

‘Nervous System’.

‘Human Brain, its parts and functions’

Video of the lecture can be shown to the students as well.

<p>https://youtu.be/RNLceVI8jcc?si=3SA9naJiZ-oHtIC4</p>	
<p>https://youtu.be/mELWDukIDuQ?si=jOTTS6ibP-OUszAH</p>	

Keywords:

Brain, neurons, nerves, central nervous system, spinal cord, synapses, neurotransmitters, sensory perception, motor functions, reflexes, neural communication

Material

- Index cards or small pieces of paper
- Markers

Activity: Neuron matching game

1. Preparation

- Write down the names of different parts of a neuron on separate index cards or pieces of paper (e.g., cell body, dendrites, axon, synapse)

2. Distribution

- Distribute the cards randomly to the students

3. Matching game

- Instruct students to walk around the room and find classmates with cards that match the compliment their own ((e.g., dendrites find axon, synapse finds cell body)

4. Pairs or small groups

- Once students find their matches, they can form pairs or small groups holding their matching neuron parts.

5. Discussion

- Facilitate a brief discussion
- Ask each group to explain the function of the neuron part they represent
- Emphasize how these parts work together in the nervous system

Essential questions:

Before starting the lesson, ask some questions to explore the background knowledge of students:

1. What is the main organ of the nervous system?
2. Name the two parts of the nervous system.
3. How do neurons transmit information in the body?
4. What is the role of the spinal cord in the nervous system?
5. Why reflexes are important?
6. How does the nervous system help us sense the environment?
7. What is the difference between central and peripheral nervous system?
8. Why is it important to protect your head and spine?