Unit 2: Tissues

Lesson 3: *Nervous tissue-Key*

Activity 1 (15'): Introduction to nervous system

Step 1: Answer: 4-3-1-2

Step 2 : Based on what you have read previously, in pairs answer these questions:

1. What are the functions of the nervous system?
   The nervous system is an organ system containing a network of specialized cells (neurons) that coordinate the actions of an animal and transmit signals between different parts of its body.
2. What are the structures in the nervous system?
   Brain, spinal cord and nerves
3. Looking at the following image say 1. how the nervous system is divided and 2.what the organs in each system are.
   The nervous system is divided in two parts: central nervous system (CNS), formed by brain and spinal cord and the peripheral nervous system, made up of nerves extending from the central nervous system to all the body
4. In your opinion, what do peripheral and central nervous mean?
   The answer could be different in each group.

Activity 2 (25'): Nervous system

1. *How is the peripheral nervous system divided?*
   The peripheral nervous system is divided into somatic (controls skeletal muscles) and autonomic (regulates glands, blood vessels, internal organs). The latter is divided into sympathetic, also called fight or flight, which prepares the body for intense action, and parasympathetic that relaxes the body and conserves energy.
2. *What are the major features of a neuron?*
   There are three different parts of the neuron:
   - the cell body (or soma) which has a nucleus and it is referred to as control center since controls other cell organelles
   - dendrites. Its function is to carry a nerve impulse into the cell body.
   - axon. It is a long structure that carries impulses away from the cell body to another neuron or tissue. There is usually only one axon per neuron.

3. *What are the three different types of neurons? What are their functions?*
   There are three types of neurons:
   - Sensory neurons: detect changes in body and external environment.
   - Interneurons: process and store information
   - Motor neurons: send signal out to glands and muscles

Activity 3 (10'): Nervous system

Based on the following image, write if the sentence refers to parasympathetic (P) or Sympathetic (S).

1. Constricts blood vessels S
2. Stimulates bladder P
3. Increases sweat secretion S
4. Increases peristalsis P
5. Inhibits defecation S
6. Slows heartbeat P
7. Dilates pupils S
8. Stimulates "goose pump" S
9. Increases secretion of digestive juices P
10. Accelerates heartbeat S