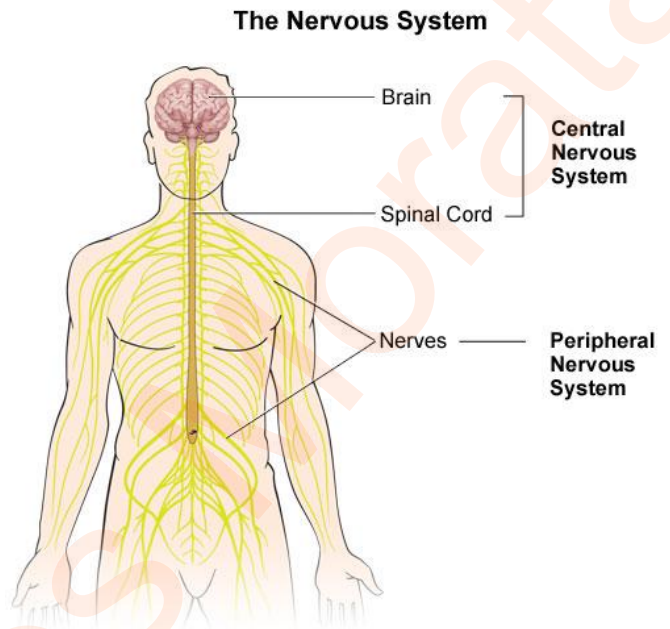


## 4th GRADE MINIMUM CONTENTS- NATURAL SCIENCE UNIT 6: THE NERVOUS SYSTEM

### ► THE NERVOUS SYSTEM

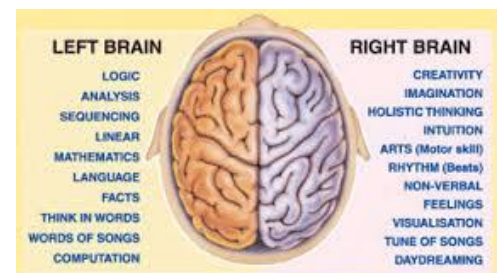
The nervous system is formed by **the central nervous system** and **the peripheral nervous system**. The brain and the spinal cord form the control centre known as **the central nervous system** where information is evaluated and decisions made. **The peripheral nervous system** consists of nerves.



### ► THE BRAIN

The **brain**, a soft, wrinkled organ that weighs about 3 pounds, is located inside the cranial cavity, where the bones of the skull surround and protect it.

The brain is divided into two identical parts called **cerebral hemispheres**. Each hemisphere has specific functions. For example, the left hemisphere uses language and symbols. The right hemisphere sees the images in the imagination.



The brain, the seat of higher mental functions such as consciousness, memory, planning, and voluntary actions, also controls lower body functions such as the maintenance of respiration, heart rate, blood pressure, and digestion.

## ► THE SPINAL CORD

The **spinal cord** is a bundle of nerves that connects the brain to other parts of the body. It is protected by the spinal column. The spinal cord begins at the base of the brain, high in the neck, level with the first cervical vertebra. It terminates between the first and second lumbar vertebrae, low in the back.

## ► NERVES

Nerves send the information to the brain for interpretation and bring us a rapid response.

There are two types of nerves:

- **Sensory nerves** carry impulses from sensory receptors towards the brain.
- **Motor nerves** carry impulses away from the brain to muscles and other parts of the body.

## ► LOOK AFTER YOUR NERVOUS SYSTEM

Sometimes it is very difficult to concentrate due to the **nervous fatigue**.

You can help your nervous system work well and be healthy by being active, having a healthy diet and keeping yourself busy and happy.

- Exercise releases a chemical, called serotonin, in the brain which makes you feel good, relaxes muscles and gets rid of stress.
- Good food gives your body the vitamins and minerals needed to build healthy nerves and tissue. Make sure that your diet contains lots of fresh fruit, vegetables and milk. Don't drink coffee or soft drinks.
- Sleep ten hours a day.

## UNIT 6: THE NERVOUS SYSTEM

### ACTIVITIES

1.- Find words related to the nervous system. Then, use the words to complete the text.

alejperipheralnervoussystemrosabraincomotornerveserespinalcordsensorynervescentralnervoussystemare

The nervous system is formed by .....and  
..... The .....and the.....  
..... form the central nervous system. The .....  
..... consists of ..... There are two types of nerves: .....  
..... and.....

2.- Read the sentences and write T( true) or F (false)

- a. The brain is divided into two different parts .....
- b. The brain is located inside the cranial cavity.....
- c. The brain does not control the digestion .....
- d. The brain is a soft organ .....

3.- Match.

- |                    |  |
|--------------------|--|
| a. Motor nerves    | 1. Carry impulses from sensory receptors |
| b. The spinal cord | 2. Carry impulses away from the brain    |
| c. Sensory nerves  | 3. A bundle of nerves                    |
| d. The brain       | 4. A soft organ                          |

4.-What type of nerves are the auditory nerve and the optic nerve?

.....

5.-Complete with: the brain- nerves- the nervous system- the spinal cord- the central nervous system- the peripheral nervous system

6.- Complete your bilingual dictionary.

THE NERVOUS SYSTEM		
- The central nervous system: _____	- The peripheral nervous system: _____	- The brain: _____
- Cerebral hemisphere: _____	- The spinal cord: _____	-Nerves: _____
- Sensory nerves: _____	- Motor nerves: _____	- Nervous fatigue: _____