The Nervous System

- The **brain** controls almost everything that happens in your body
  - We can live without certain organs, but no one can live without a brain
- The brain is just part of the nervous system → the system that senses the environment and coordinates appropriate responses
- The nervous system is made up of the **brain**, spinal cord, and **peripheral nerves**

Structural Features

- The nervous system is made up two parts:
  - **central nervous system**
    - brain and spinal cord
  - **peripheral nervous system**
    - nerves that carry signals between the central nervous system and the body

Nerve Tissue

- Nerves are made up of specialized cells called **neurons**.
- The myelin sheath enables the passage of information around your body.
- They do this by conducting electrical signals — **nerve impulses** — from one area of the body to another.

Sensory Receptors

- Sensory receptors are specialized cells that receive input from our external environment and send signals to the **brain**.
- In addition to the familiar senses, we have receptors in our muscles and skin that are sensitive to pressure, temperature, and pain.

Cool Facts About the Nervous System

- If we lined up all the neurons in our body it would be around **1000** km long.
- The left side of the human brain controls the **right** side of the body and the right side of the brain controls the **left** side of the body.
- Neurons are the largest cells in the human body, (up to **1** m long).
- The Nervous System can transmit impulses as fast as **360** km/h.