

- Sensory receptors are nervous and endocrine nerve endings that are used to monitor the external environment of living organisms.
- Invertebrates have a variety of sensory receptors mainly used for procurement of food and possible predators.
- Some of the sensory receptors of invertebrates are hair cells, simple and compound eyes, ocellus, statocyst for monitoring orientation of body and gravity.
- Vertebrates have developed sensory receptors from the simplest in agnathans to the more complex in vertebrate classes.
- Eyes are responsible for the sense of sight. In vertebrate groups, rods and cones populations perceive light, color and image.
- Olfactory organ is used for the sense of smell. Nerve endings pick up dissolved chemicals to identify things around.
- Ears are primarily developed for equilibrium with the Corti or related structure observed in all vertebrates.
- Ears evolved to become the sense organ for hearing by developing additional structures to receive and process sound.

- Taste is picked up by special taste buds associated in human tongue papillae. In other animals, they may be found all over the oral cavity as taste hairs while others are found all over the body.
- The skin also contains various receptors for pain, touch, temperature, pressure and vibration. These are associated with layers of the epidermis and the dermis. Some examples are Meissner corpuscles in the dermis and subcutaneous tissue and Pacinian corpuscles in the dermis and subcutaneous tissue.
- Plants also have sensors. The sensor that lies in cells producing proteins for growth and responding accordingly.
- Some of the plant's sensors are for light, gravity, pathogens, touch and wind.
- Locomotion is the ability to move using their muscles and bones.
- Contraction of muscles is achieved by shortening and bulging spending ATP in the process.
- Sarcomere is the functional unit of a muscle fiber made up of thin and thick myofilaments.
- Sliding filament theory states that thin and thick myofilaments interact to produce force and other producing contraction.

□ Myosin is the major protein of the thick filament while actin is the protein of the thin filament.