OCR (A) Biology GCSE

B3.1 - The nervous system

Flashcards

What is the difference between the central nervous system and the peripheral nervous system?

What is the difference between the central nervous system and the peripheral nervous system?

The central nervous system is the brain and the spinal cord, the peripheral nervous system is every other part of the nervous system

What is a stimulus?

What is a stimulus?

A stimulus is a change in the environment

What type of neurone connects a receptor to the CNS?

What type of neurone connects a receptor to the CNS?

A sensory neurone

What is an effector?

What is an effector?

A part of a body that brings about the response to a stimulus like a muscle or a gland

What type of neurone connects the CNS to an effector?

What type of neurone connects the CNS to an effector?

A motor neurone

Describe the reflex arc

Describe the reflex arc

Stimulus detected by a receptor

Impulse passed along sensory neurone to CNS

Impulse passed along motor neurone to effector

Effector brings about the response

What is the cornea and what is its function?

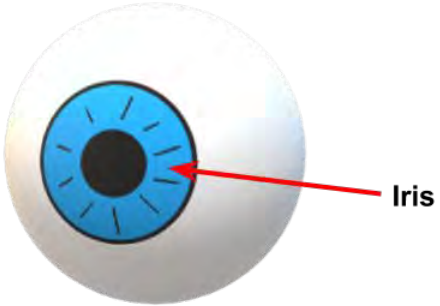
What is the cornea and what is its function?

The transparent layer in front of the eye that protects the eye from damage

What is the iris and what is its function?

What is the iris and what is its function?

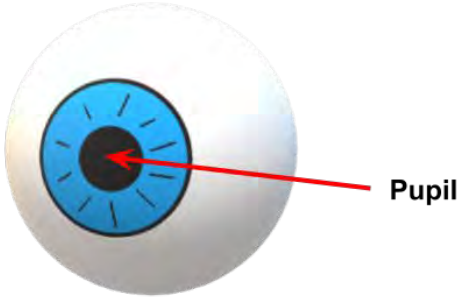
The coloured ring around the pupil that controls its diameter



What is the pupil and what is its function?

What is the pupil and what is its function?

The pupil is the hole in the middle of the iris that lets light into the eye



What is the optic nerve and what is its function?

What is the optic nerve and what is its function?

The nerve coming out the back of the eye that sends signals to the brain

What is the function of the lens?

What is the function of the lens?

The lens focuses the light rays onto the retina

What is the retina and what is its function?

What is the retina and what is its function?

The retina is the back part of the eye and it converts visual stimuli into electrical impulses

What do the ciliary body and suspensory ligaments do?

What do the ciliary body and suspensory ligaments do?

They control the shape of the lens (accomodation)

What defect in the eye causes short sightedness?

What defect in the eye causes short sightedness?

The lens focuses light rays in front of the retina so far away objects appear blurry

How is short sightedness corrected?

How is short sightedness corrected?

By wearing glasses that have concave lenses

What defect in the eye causes long sightedness?

What defect in the eye causes long sightedness?

The lens focuses light behind the retina so nearby objects appear blurry

How is long sightedness corrected?

How is long sightedness corrected?

By wearing glasses that have convex lenses

What is colour blindness?

What is colour blindness?

- It is an inherited condition where people find it difficult to tell the difference between colours
- It is caused by a defect in the retina and there is currently no cure

Where is the cerebrum located and what is its function?

Where is the cerebrum located and what is its function?

- It is located at the front of the brain
- It controls conscious functions, memory and language

Where is the cerebellum located and what is its function?

Where is the cerebellum located and what is its function?

- It is located at the back bottom of the brain
- It controls muscular movement and balance

Where is the medulla located and what is its function?

Where is the medulla located and what is its function?

- It is located in the brainstem in the middle at the bottom
- It controls unconscious functions like heart rate and breathing

What is the function of the hypothalamus?

What is the function of the hypothalamus?

- It acts as the regulatory centre and controls things like body temperature, water content and salt balance

What is the function of the pituitary gland?

What is the function of the pituitary gland?

- It releases hormones into the blood

Give 2 reasons why it is difficult to investigate brain function (Higher)

Give 2 reasons why it is difficult to investigate brain function (Higher)

- Surgery is not risk free
- People with brain disorders may be unable to consent

Why is it difficult to treat brain disorders? (Higher)

Why is it difficult to treat brain disorders? (Higher)

- The brain and spinal cord are very difficult to access
- Tissues in the CNS cannot regenerate
- Drugs cannot penetrate the blood-brain barrier