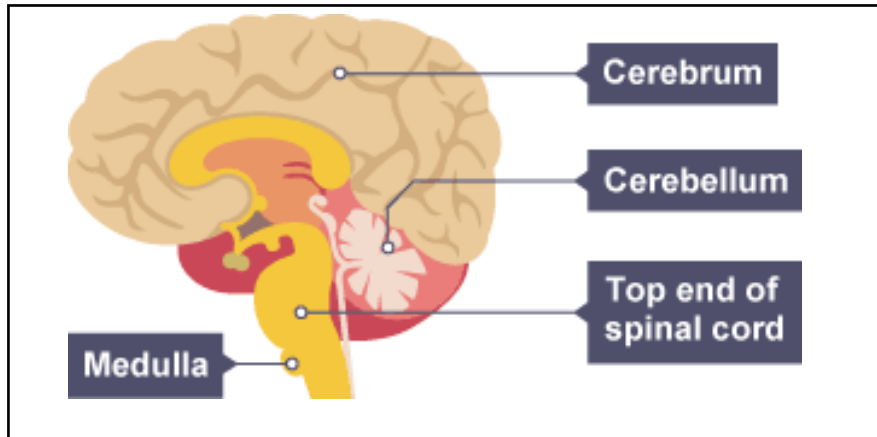


Biology Topic B10: The Human Nervous System Triple Only Content

1. The brain (TRIPLE ONLY)

Name	Function
Cerebral cortex	High level functions like language, memory and consciousness
Cerebellum	Balance and coordination of muscles in the body
Medulla	Controls life supporting functions like breathing and heart rate. Key for homeostasis

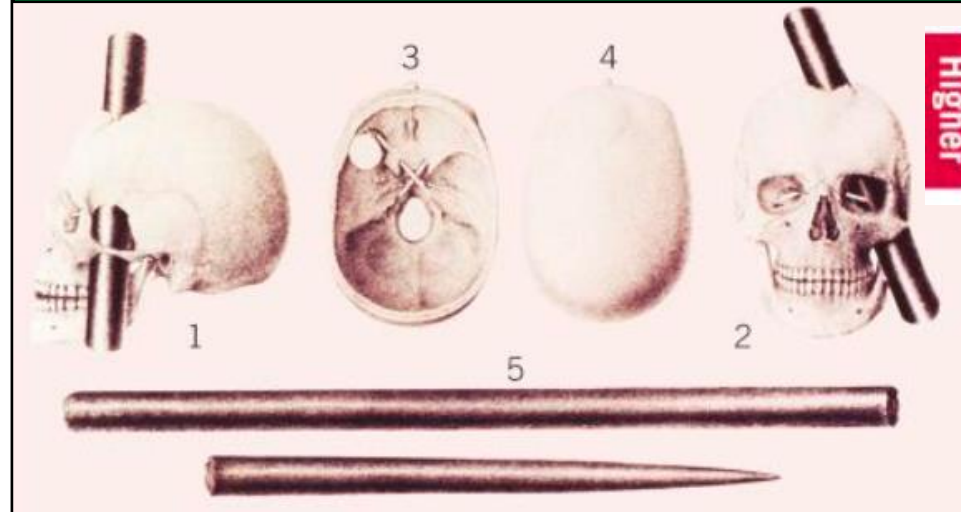


3. Problems with the brain

- The brain is complex and easily damaged.
- It is difficult to treat problems with the brain because drugs often don't pass through the membranes that surround the brain.
- As we do not fully understand the brain it is difficult to perform surgery without causing further damage.

Higher

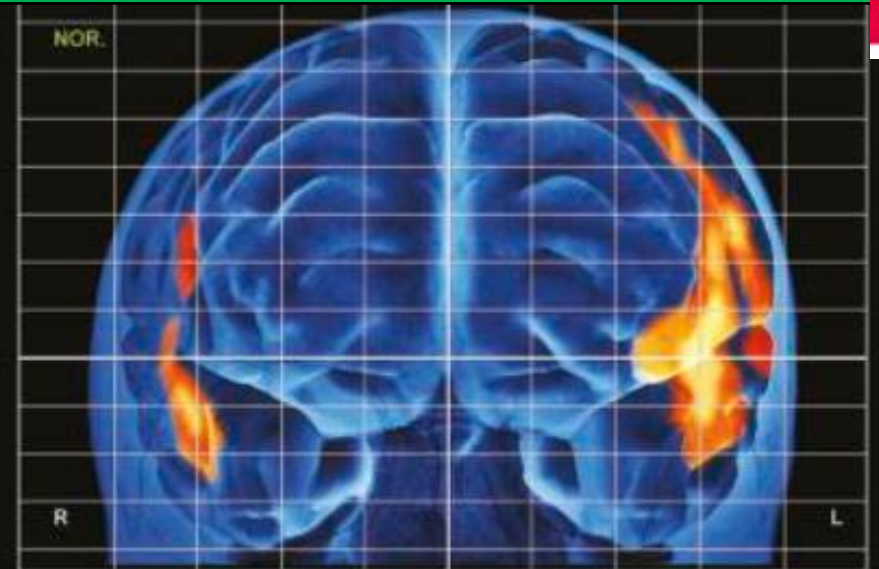
2. Finding out about the brain – Studying people with brain damage



Higher

4. Finding out about the brain – MRI scans show how the brains works by taking images of the brain while the person carries out a simple task. This image shows the areas of your brain that are active when you read,

Higher



5. The structure of the eye (TRIPLE ONLY)

Name	Function
Sclera	White outer protective layer.
Suspensory ligaments	Connect ciliary muscles to lens
Iris	Controls the size of the pupil
Pupil	Hole in eye that lets light through. Wide in dark conditions small in light conditions
Cornea	Transparent protective layer
Ciliary muscles	Contract to change shape of lens to see near and far objects
Lens	Refracts light onto retina
Retina	Contain light sensitive rod and cone cells
Optic nerve	Sends signals from retina to brain.

6. Adjusting focus (TRIPLE ONLY)

Object	Near	Distant
Ciliary muscles	Contract	Relax
Suspensory ligaments	Loosen	Tighten
Lens	Is thicker	Is thinner

7. Vision problems (TRIPLE ONLY)

Name	Myopia	Hyperopia
Common name	Short-sighted	Long-sighted
Corrected by	<ul style="list-style-type: none"> Glasses Contact lenses Laser eye surgery 	

