

Central Nervous System

How does our brain work?

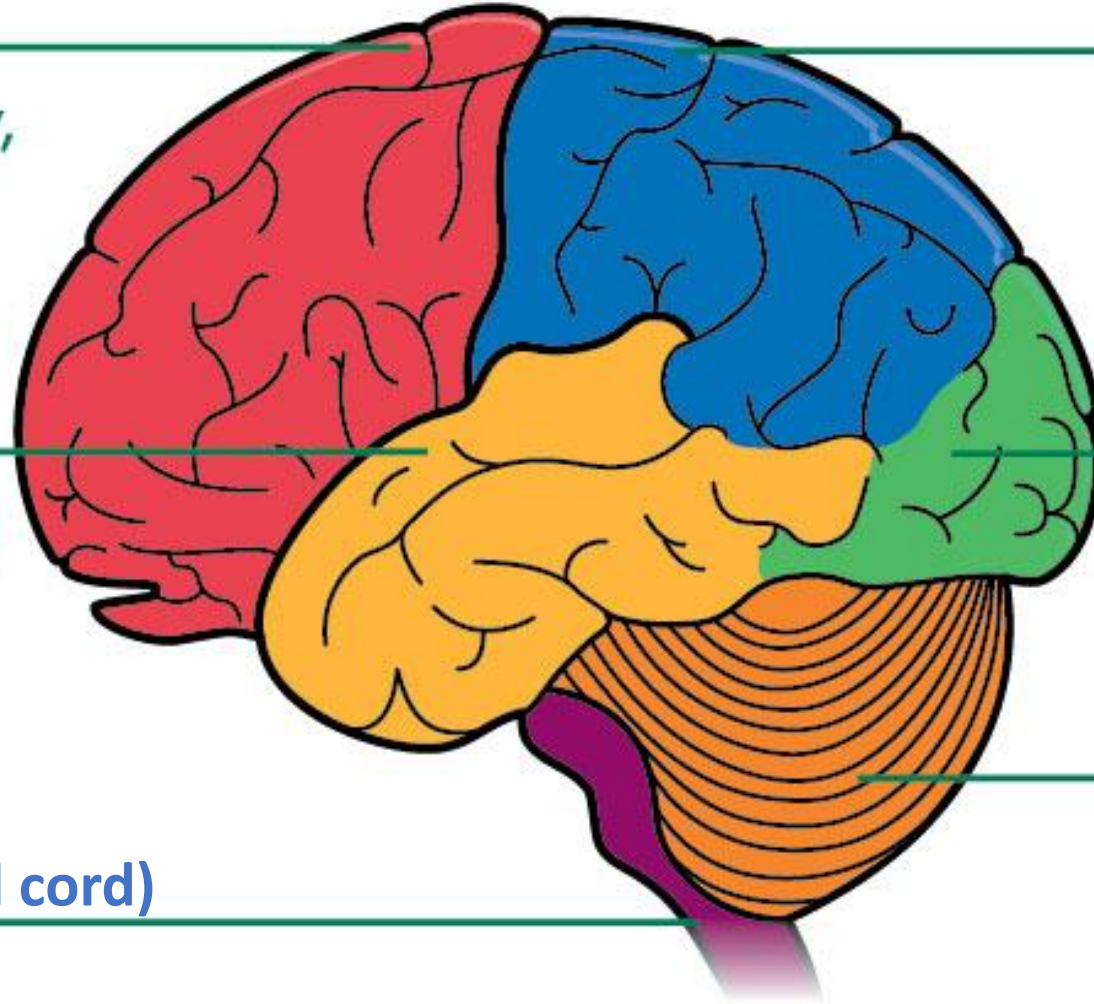
What do you know about brain?

- Where is brain in human`s body?
- How much does it weight?
- Which color is brain?
- Are there any differences between male and female brains?
If yes, then what kind of?
- Is elephant smarter than human?
- Does an intellect depend on weight of brain?

Frontal lobe
(thinking, memory,
behaviour and
movement)

Temporal lobe
(hearing, learning
and feelings)

Brain stem
(breathing,
heart rate and
temperature)



Parietal lobe
(language
and touch)

Occipital
lobe (sight)

Cerebellum
(balance and
coordination)

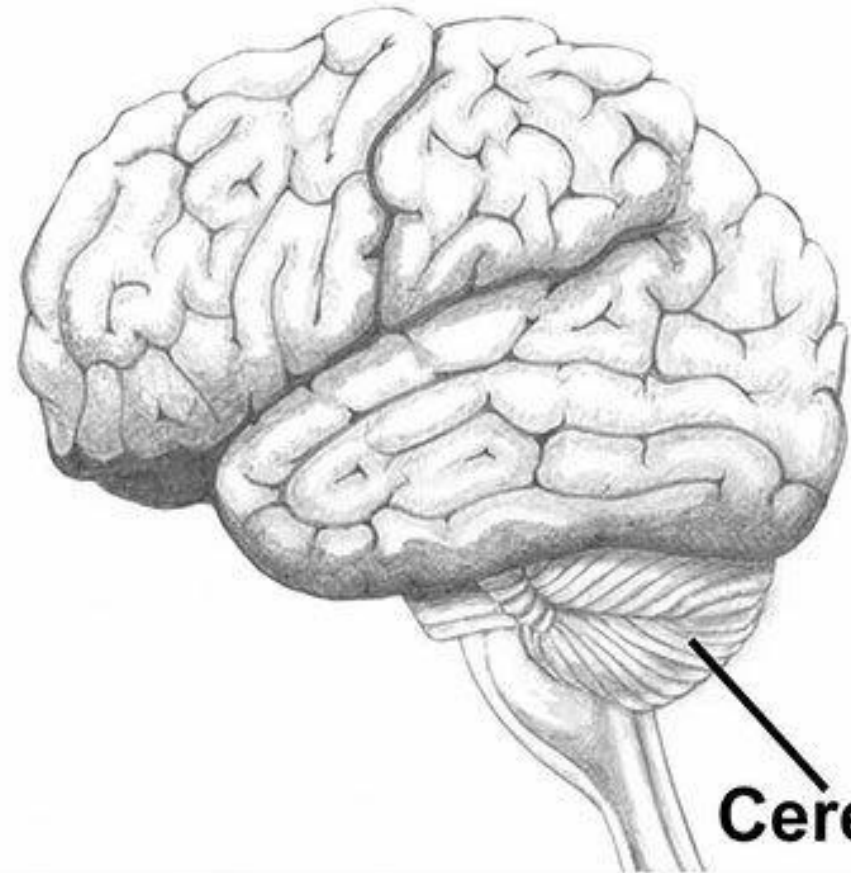
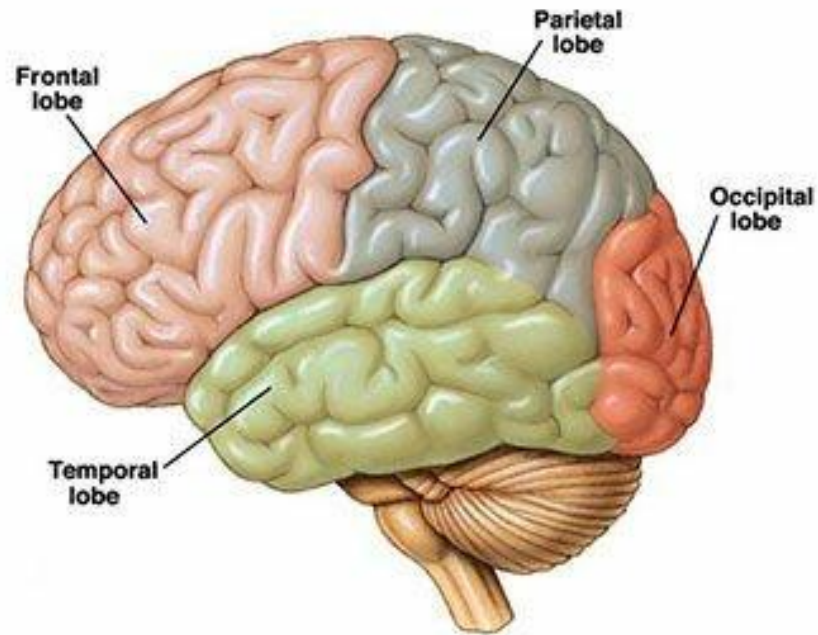
(Spinal cord)

CEREBRUM

VS

CEREBELLUM

Cerebrum



Cerebellum

Brain (Мозг)

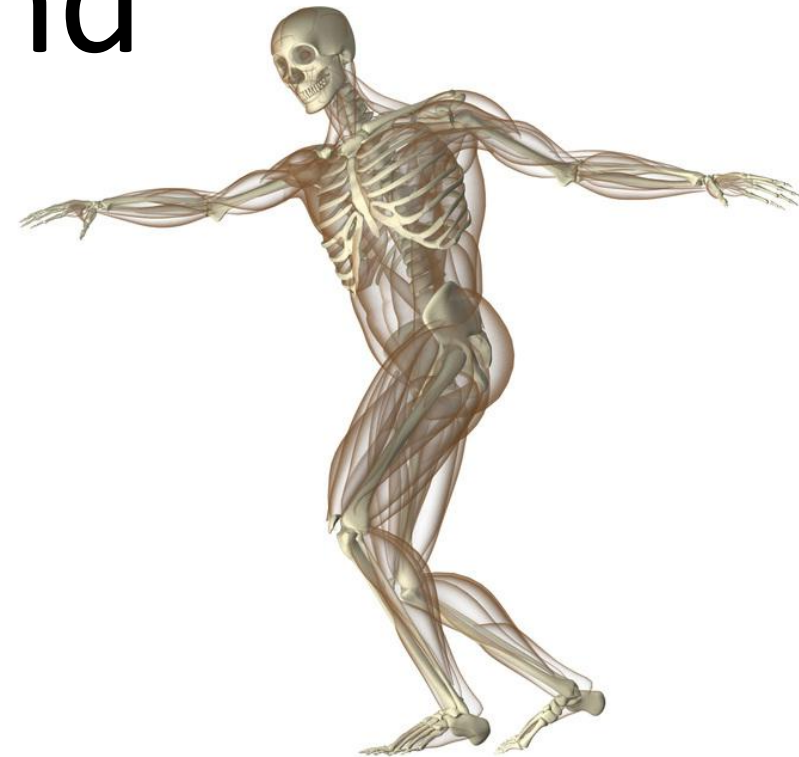
- Controls and coordinates our body functions

(Контролирует и координирует функции тела)

Cerebellum (Мозжечок)

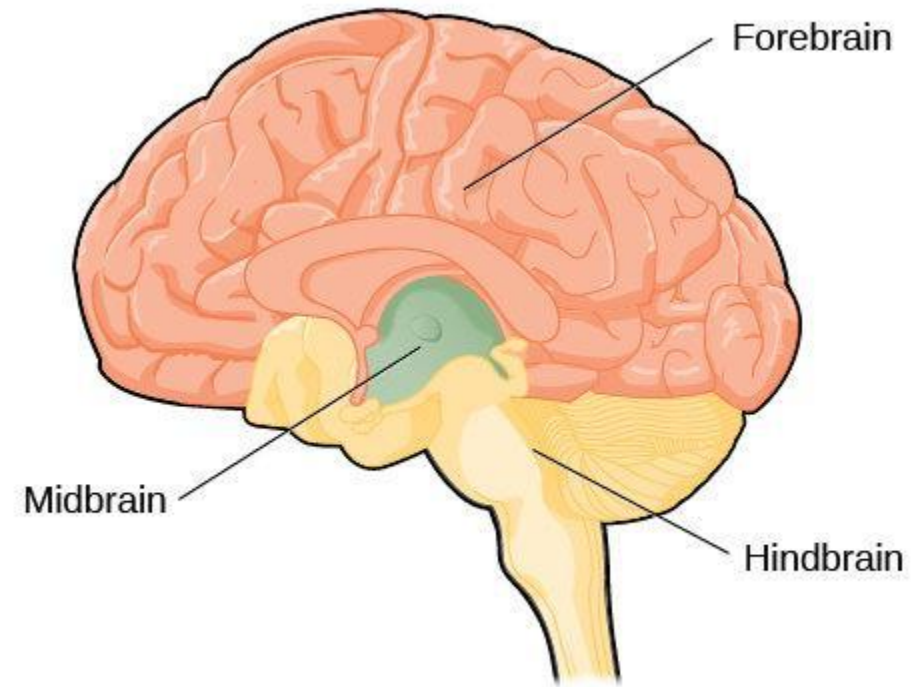
Responsible for balance and coordination of muscles and the body

(Отвечает за баланс и координацию мышц и тела)



Midbrain (Средний мозг)

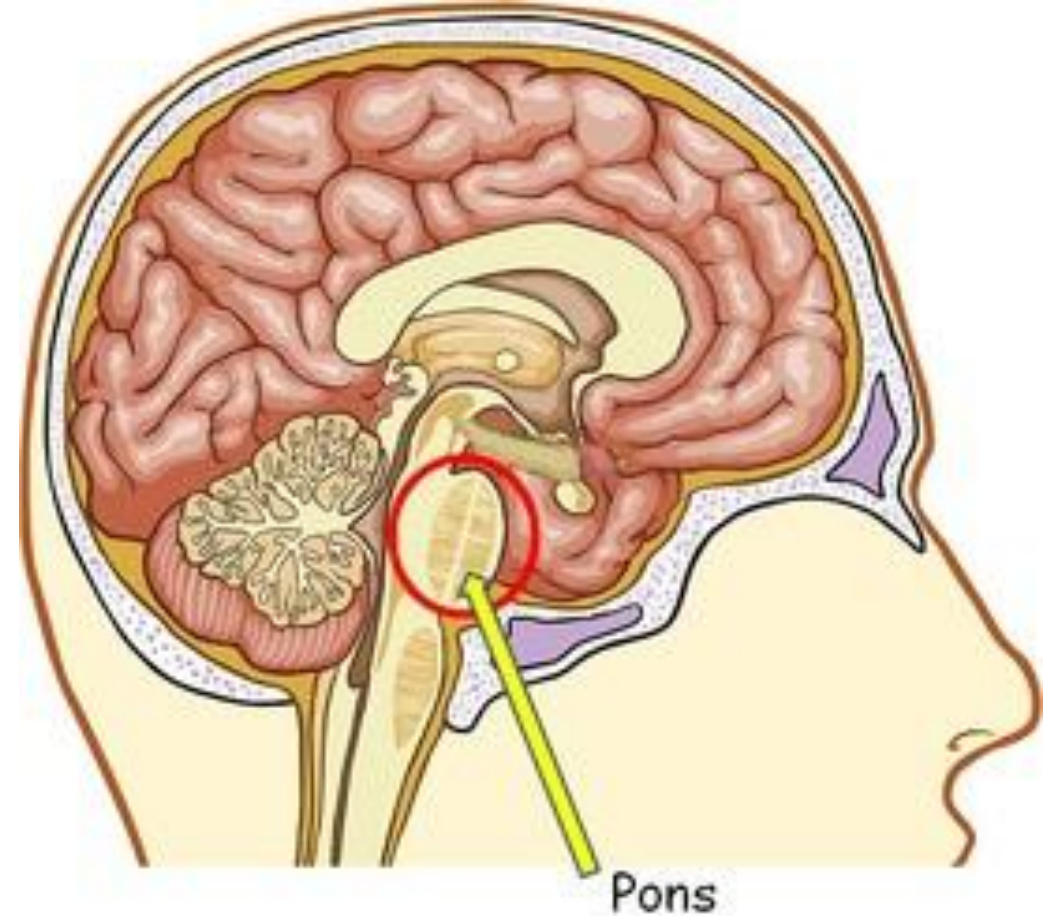
Has control centers for vision, hearing, motor control, biorhythm, alertness, and temperature regulation



(Имеет центры управления зрением, слухом, управлением мотора, биоритмом, бдительностью, и регулировкой температуры)

Pons (Мост)

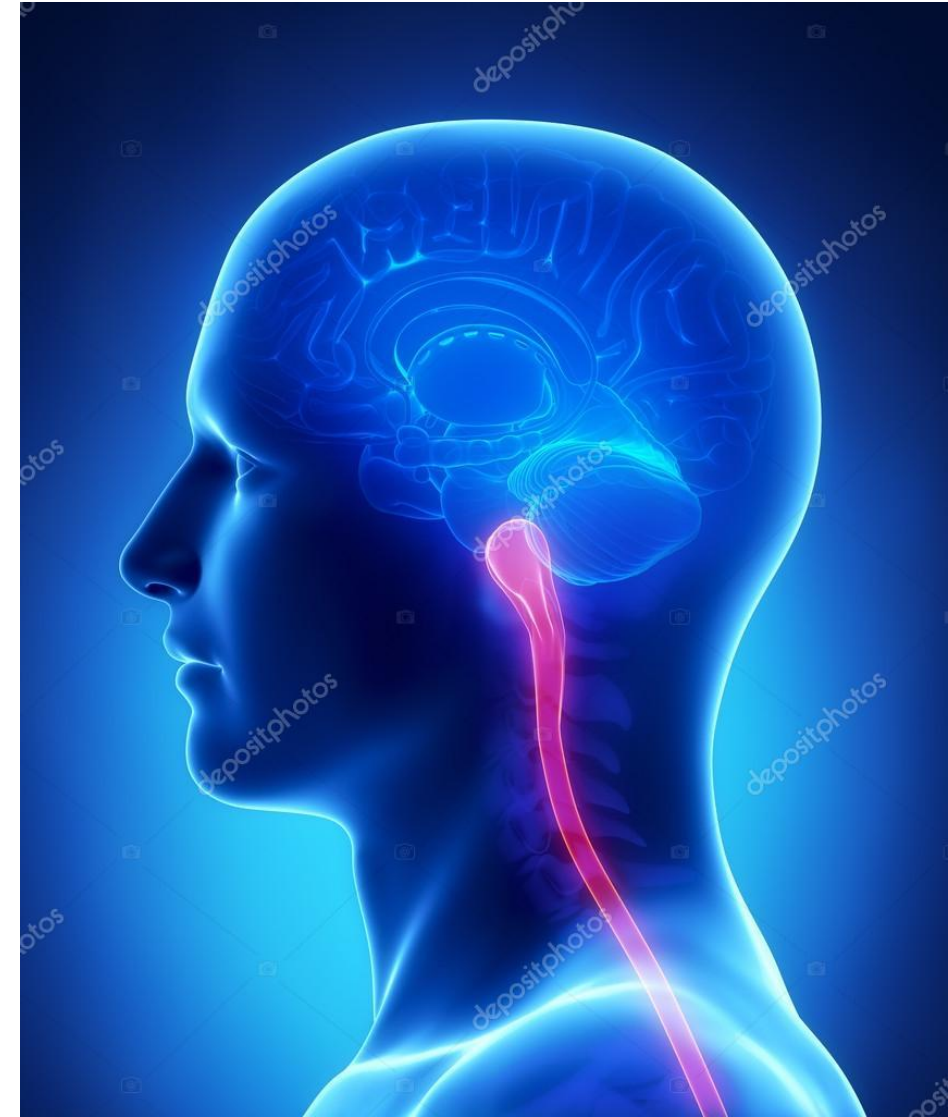
- Bridge between different parts of brain that messages are transmitted



Medulla oblongata (Продолговатый мозг)

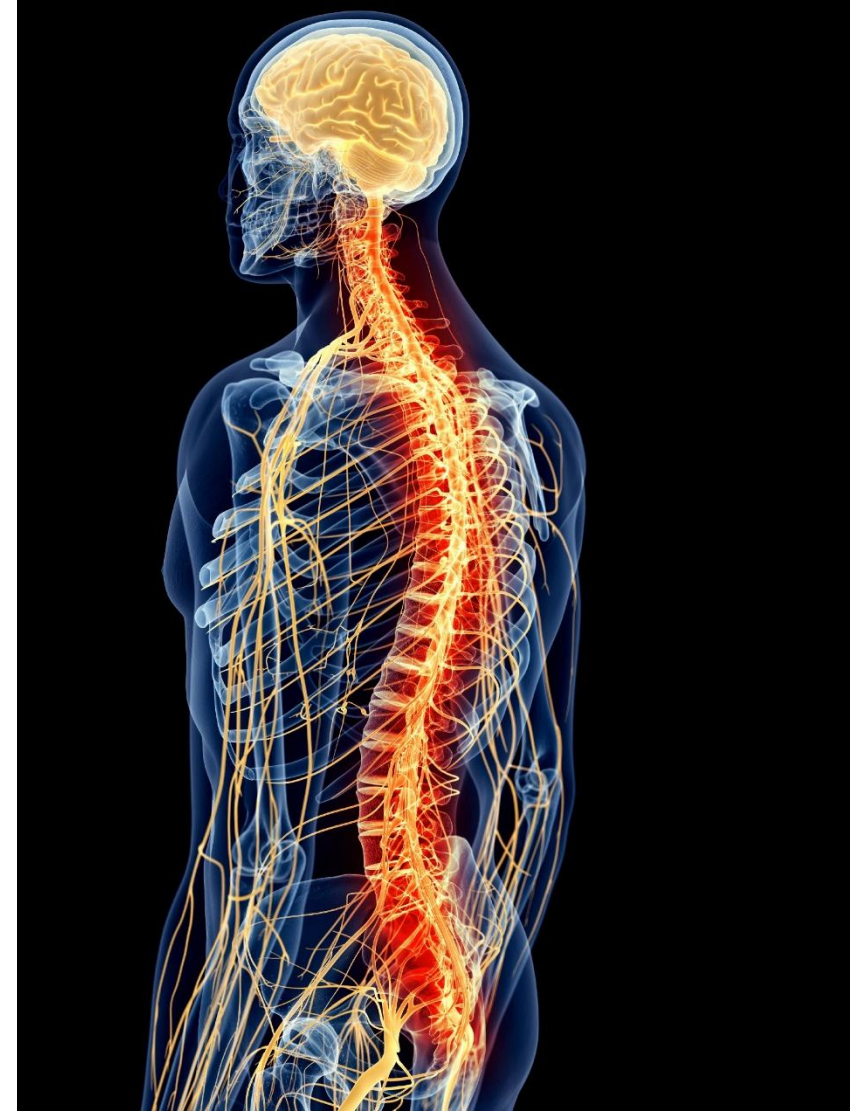
Controls breathing,
swallowing, heart rate
and blood pressure

Контролирует дыхание,
глотание, частоту
сердечных сокращений и
кровенное давление



Spinal cord (СПИННОЙ МОЗГ)

- Links the brain and the rest of the body. Reflex center of the body



ACTIVITY!

I part

- Chose an action
- What kind of action is it? Voluntary or Involuntary?
- Read your action aloud and explain why you are in that group

II part

- Find appropriate brain part for your action
- Discuss with teacher and friends if you are in the right place

- Heart rate increases when we make sports. Which part of the brain controls the process?
- You see a bird trying to fly but its movement are not smooth and balanced. Which part of bird`s brain is damaged?
- Which part of brain is responsible for intellectual functions?

Answers

- Medulla. Its primary role is regulating our involuntary life sustaining functions such as **breathing**, swallowing, **HEART RATE**.
- Cerebellum. Responsible for **balance**.
- Frontal lobe. **Controls intellectual** activities, such as spontaneity, **memory**, language, initiation, judgement, impulse control, and social behavior.

The average adult human brain weighs about 1,300 grams. The dolphin – a very intelligent animal – also has a brain that weighs about 1,300 grams on average. But a cachalot (sperm whale), not generally considered to be as intelligent as a dolphin, has a brain that weighs about 7,800 grams. So, the size does not affect the intelligence of organism.

HOMEWORK! What does affect the intelligence? Write an essay about this topic.