

Homeostasis and response

Key Words

Homeostasis –

Reflex –

Stimulus –

Hormone –

Effector –

Pancreas –

Liver –

Glucagon –

Insulin –

Glycogen –

Diabetes –

Glycogen –

Puberty –

Menstruation –

Ovulation –

Contraception –

IVF –

Explain in four steps how water is regulated by ADH

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Give two arguments for and against IVF

State the hormones in a contraceptive pill. Explain why.

Give the steps required for a nervous response to occur (Y9)

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Explain in six steps how blood glucose levels are controlled by insulin and glucagon

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Explain the functions of the following hormones

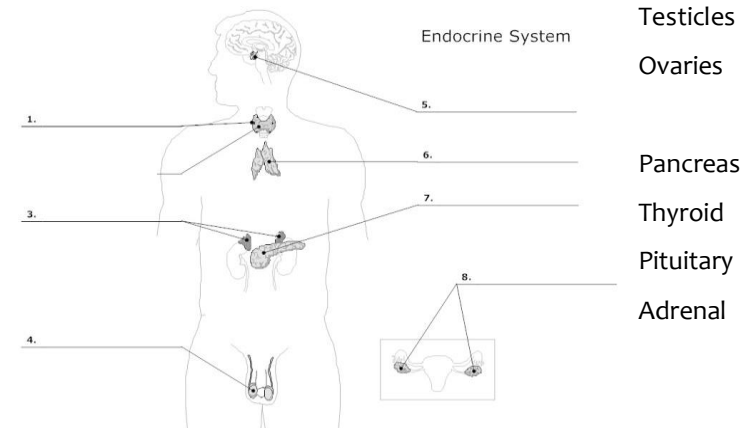
Oestrogen –

LH –

FSH –

Progesterone –

Label the diagram with the following glands



What is a reflex?

Homeostasis – the nervous system

Draw and label a motor neurone.

Why are reflexes important?

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What is a reflex arc?

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What's a receptor? Name three types of receptor.

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Why is the myelin sheath important?

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What's an effector? Name the two types of effector.

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What is a synapse?

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Name the three types of neuron.

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What makes up the CNS?

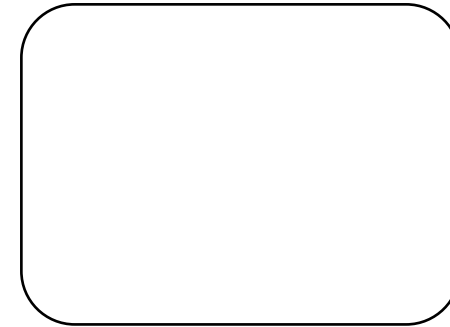
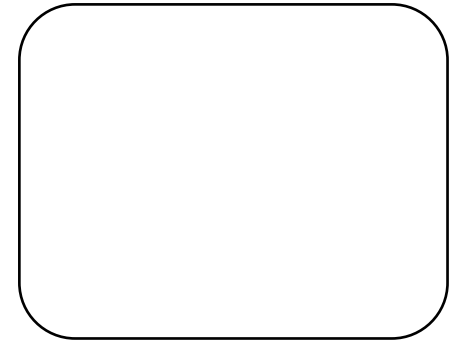
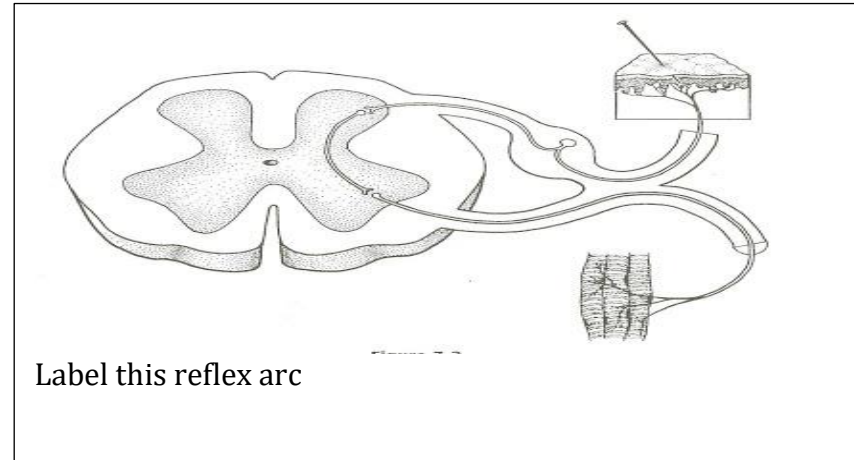
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What is a neurotransmitter?

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Describe with the use of diagrams how an impulse crosses a synapse.

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What is a hormone?

Homeostasis – endocrine system and blood glucose control

Label the following endocrine glands

What is an endocrine gland?

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What is the cause of Type 1 diabetes?

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What hormone is released if blood glucose is too high?

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How is type 1 diabetes treated?

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Describe how insulin lowers blood glucose

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What is the cause of type 2 diabetes?

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What hormone is released if blood glucose is too low?

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How does glucagon raise blood glucose?

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How is type 2 diabetes treated?

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Name the hormones produced by:
Ovaries.....

.....Testes.....

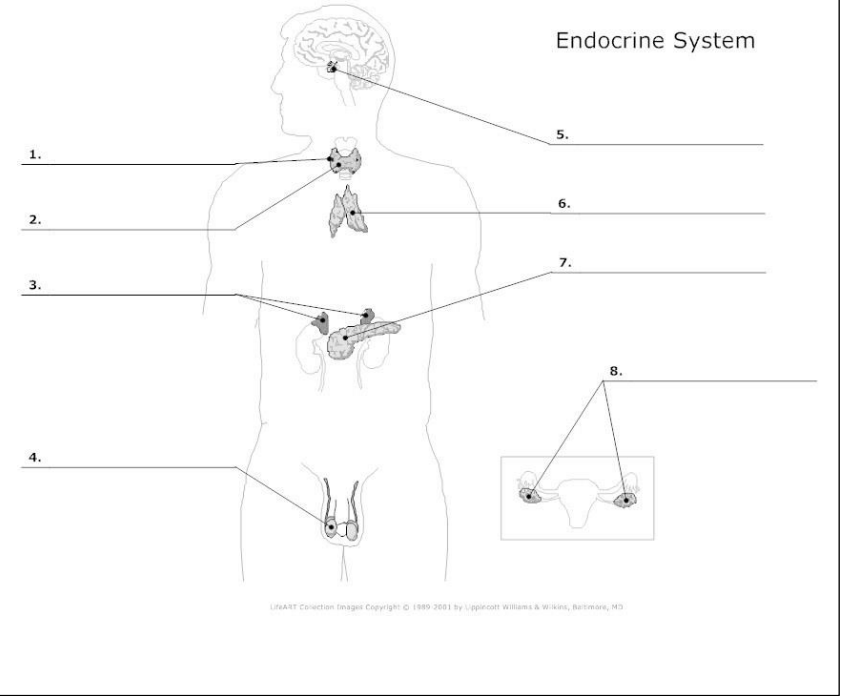
.....Pancreas.....

.....Adrenal glands.....

.....thyroid.....

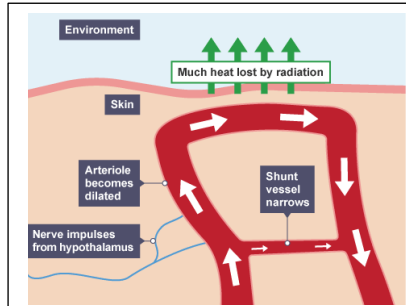
.....Pituitary.....

Why is the pituitary gland known as the master gland?



Describe how the kidney makes urine.
Include ultrafiltration and selective reabsorption.

Homeostasis – kidney and thermoregulation



Describe how vasodilation controls body temperature

What does the urine of a healthy person contain?

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Describe some advantages of kidney transplants

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Describe some advantages and disadvantages of dialysis.

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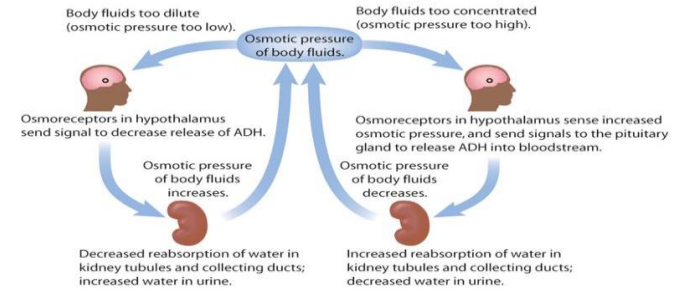
Describe how sweating helps control body temperature

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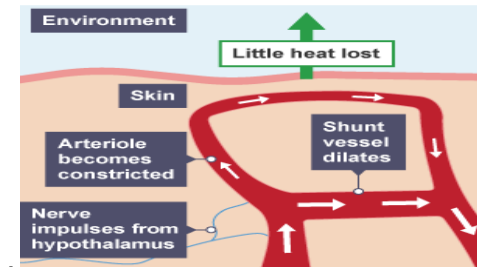
Describe how shivering helps control body temperature

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ADH - Negative Feedback



Describe how ADH controls the volume of urine produced.



Describe how vasoconstriction controls body temperature

What is a reflex?

Homeostasis -

Describe how the brain is mapped.

Why are reflexes important?

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What is a reflex arc?

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What is a synapse?

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Name the three types of neuron.

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What makes up the CNS?

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What is a neurotransmitter?

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Describe the function of:

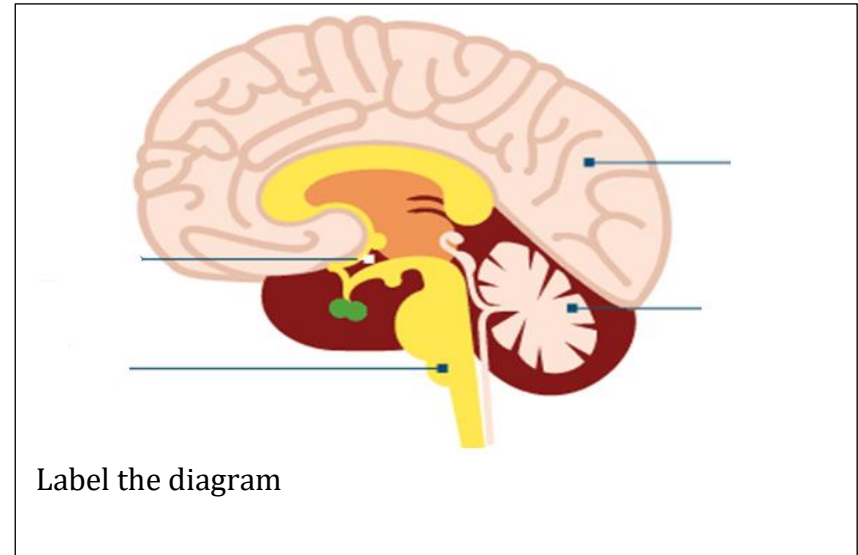
...The cerebral cortex

The cerebellum

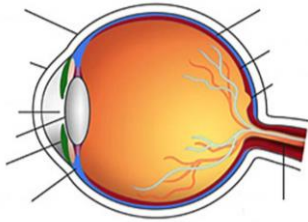
The hypothalamus

The medulla

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Homeostasis - Eye and brain



Label the diagram

Describe the function of:

- The retina
- The lens
- The cornea
- The ciliary muscle
- Suspensory ligament
- Optic nerve

What is myopia?

Draw a diagram to explain how this can be corrected.

What is hyperopia?

Draw a diagram to explain how this can be corrected.

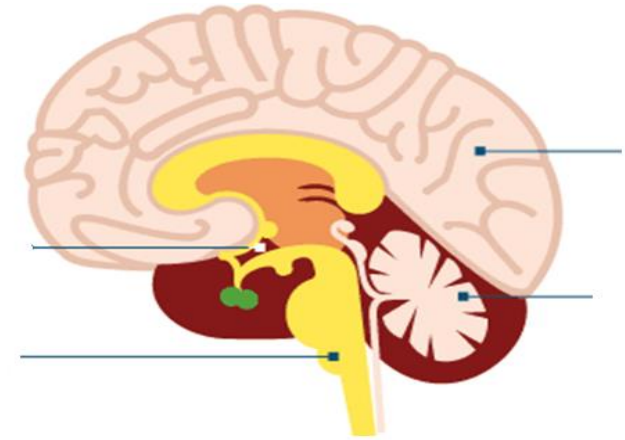
Describe how surgery can correct vision

Describe how the eye accommodates to focus on distant and near objects

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Describe how the brain is mapped.



Label the diagram

Describe the function of:

...The cerebral cortex

The cerebellum

The hypothalamus

The medulla

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