

- 1 Young mammals that are orphaned can be bottle-fed.

The photograph shows a newborn tiger cub sucking on a bottle.



Sucking is an example of an involuntary action observed in newborn mammals.

State the name given to involuntary actions.

..... [1]

[Total: 1]

- 2 Impulses travel along neurones.

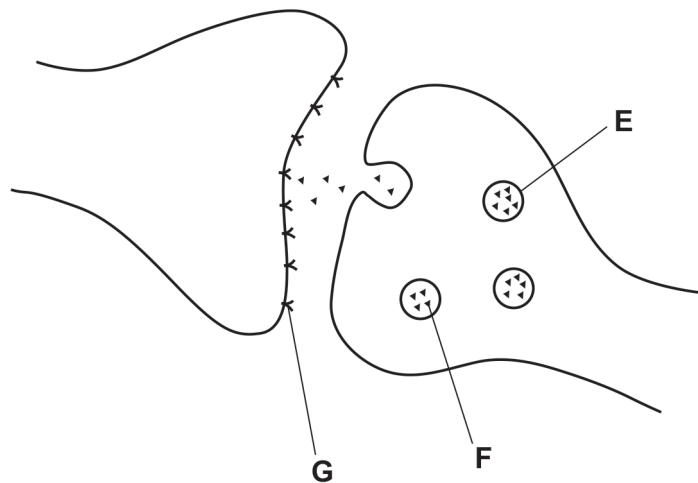
Describe how impulses pass from one neurone to another neurone across a synapse.

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[4]

[Total: 4]

- 3 The diagram is of a synapse and parts of two neurones.



Draw an arrow on the diagram to show the direction in which the signal travels across the synapse.

[1]

[Total: 1]

- 4 Reflex actions allow the body to respond rapidly to changes in the external environment.

Doctors sometimes check the reflexes of people who are unconscious.

Suggest why reflexes occur in people who are unconscious.

..... [1]

[Total: 1]

- 5 Reflex actions allow the body to respond rapidly to changes in the external environment.

Outline the pathway in a reflex arc in response to shining a bright light into the eye.

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..... [3]

[Total: 3]

- 6 The liver is an important organ in many processes.

The liver responds to changes in insulin concentration.

Insulin is a hormone.

Define the term *hormone*.

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..... [3]

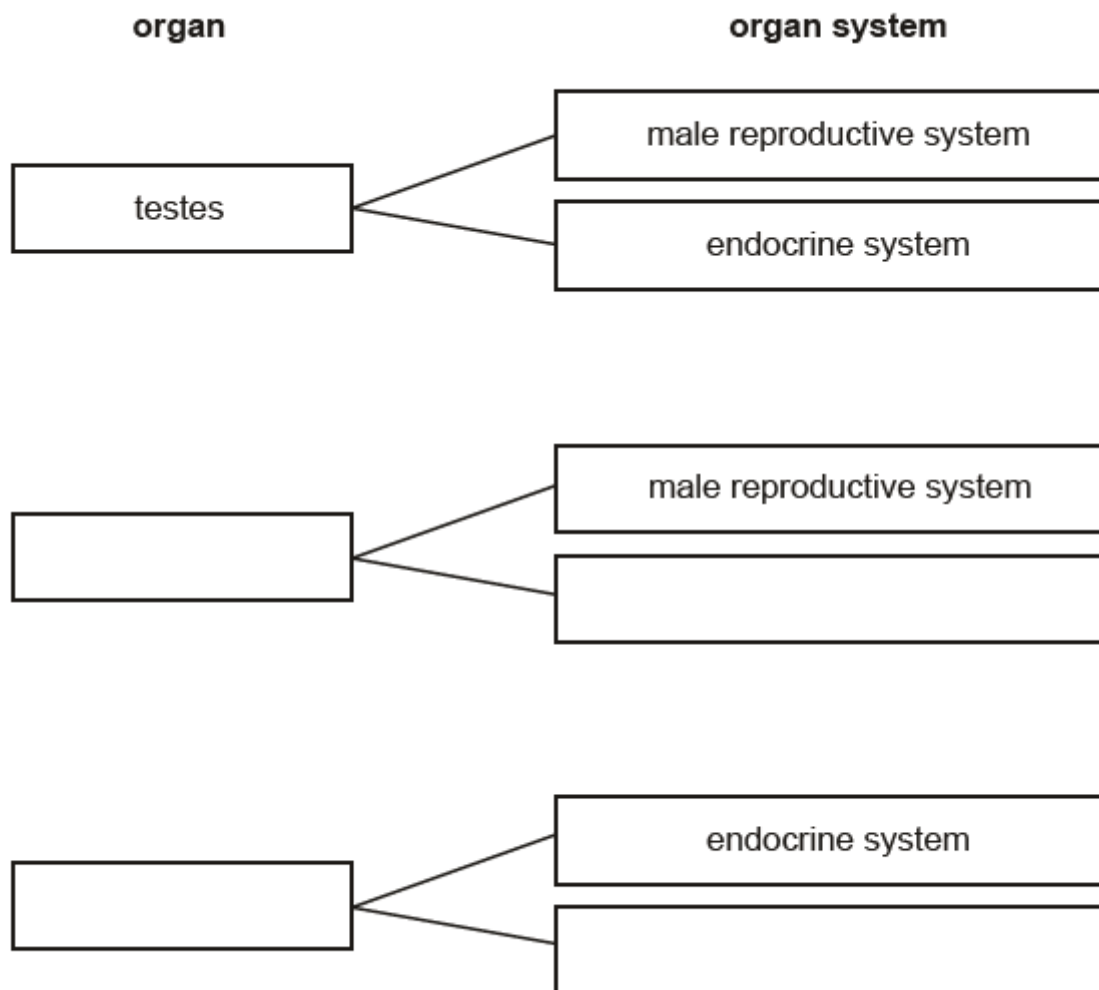
[Total: 3]

- 7 The testes are part of the endocrine system because they produce hormones.

The testes are also part of the reproductive system. This means that the testes are part of two organ systems.

Complete the diagram by stating **two** other organs that also belong to **two** organ systems.

One has been completed for you.



[4]

[Total: 4]

- 8 The kidneys are examples of organs that help the body to maintain a constant internal environment.

State the term for maintaining a constant internal environment by negative feedback.

..... [1]

[Total: 1]

- 9** The kidneys are examples of organs that help the body to maintain a constant internal environment.

Explain how negative feedback controls the blood glucose concentration of a person who has **not** eaten for a day.

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[3]

[Total: 3]

- 10** The liver is involved in the processing of amino acids.

Describe how excess amino acids are broken down.

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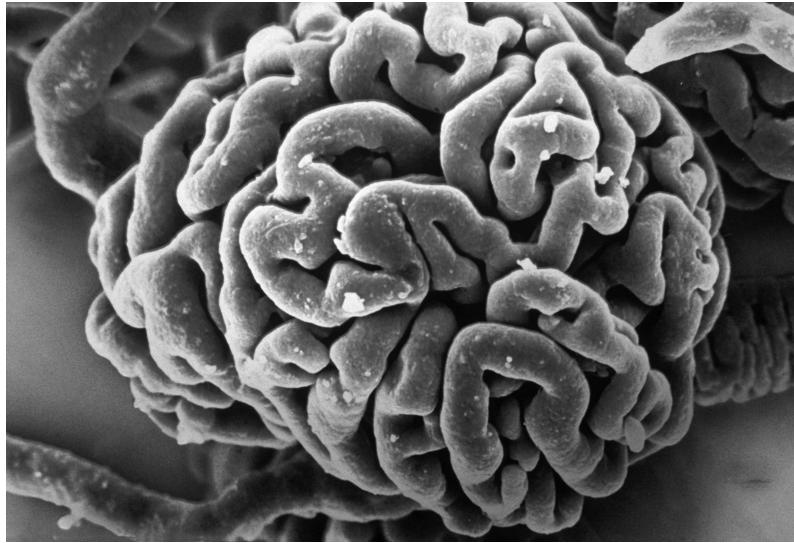
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[2]

[Total: 2]

- 11 The photomicrograph is of a glomerulus in a kidney.



Describe the role of the glomerulus.

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[Total: 2]