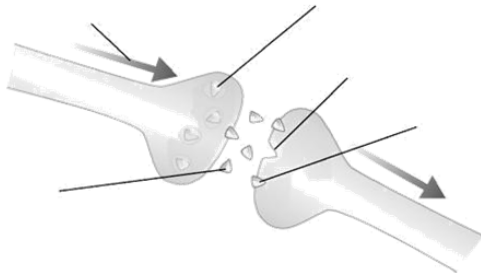


Biology Chapter 5 – Coordination and control – homeostasis, nervous system and reflex action

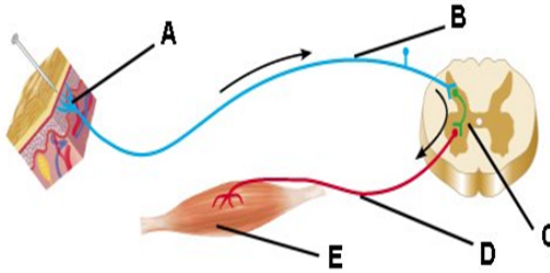
Define the term homeostasis and state the two systems involved in maintaining this.

State the structure of the nervous system.

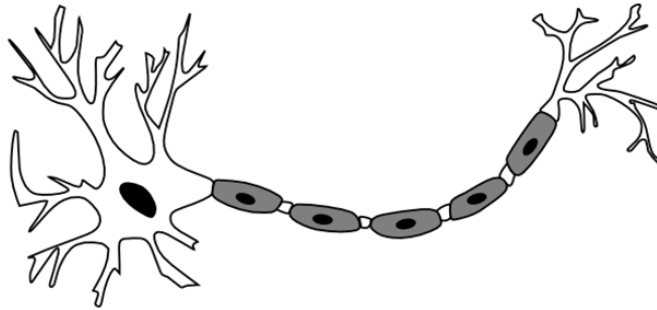
Label the diagram and explain how the nerve cells communicate.



Label the diagram to show the response of the nervous system to a stimulus.



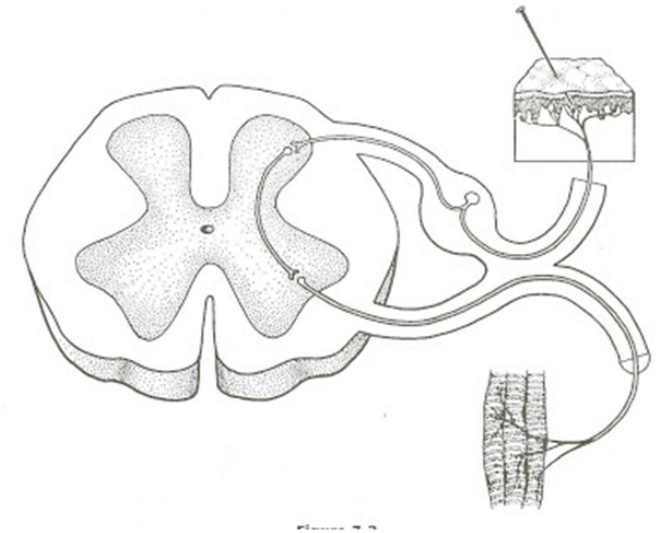
Label and explain the adaptations of a nerve cell.



Name the 5 sensory receptors and what they respond to.

Describe the difference between a reflex action and the normal CNS response.

Describe the difference between a reflex action and the normal CNS response.



Biology Chapter 5 – Coordination and control– diabetes, negative feedback and systems working together

Name the 2 types of diabetes.

Describe what type 1 diabetes is, included the symptoms and the treatment methods.

HIGHER TIER - Explain the principles of negative feedback.

Describe what type 2 diabetes is, include the symptoms and the treatment methods.

Describe some ethical and social consideration for the treatment of type 2 diabetes.

HIGHER TIER - Explain how the thyroid gland affects our activity by producing the hormone thyroxine and how this is influenced by negative feedback. You may wish to draw a diagram to demonstrate negative feedback.

HIGHER TIER – Describe the effects of adrenaline on the body.

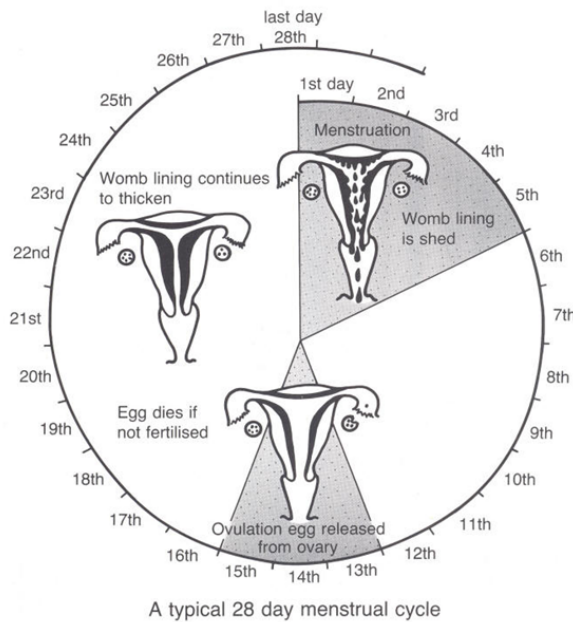
HIGHER TIER – Explain how the nervous system and the endocrine system work together.

Biology Chapter 5 – Coordination and control– menstrual cycle, IVF and contraception

State the 2 types of hormones in the reproductive system – both male and female.

State the 4 hormones involved in the menstrual cycle and describe the role they play in the cycle. **HIGHER TIER** – included details as to when they are released, where they are released from and what effect this has on the other hormones.

Label the diagram to show when the hormones are released.



HIGHER TIER – Suggest how the menstrual cycle shows negative feedback.

Describe the types of contraceptives available and evaluate the different methods. Make reference to the barrier methods, hormonal methods and the natural methods.

HIGHER TIER – Describe what IVF is, when the technique is most successful and the stages of it and evaluate the use of IVF as a fertility treatment.

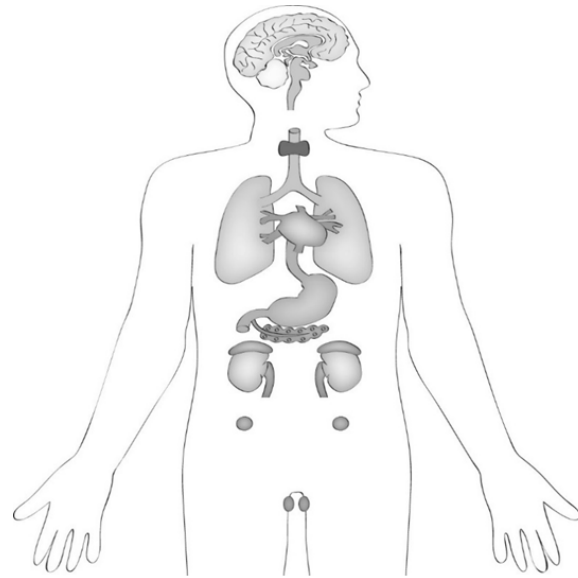
Biology Chapter 5 – Coordination and control– endocrine system and controlling blood glucose

State what the endocrine system does.

Explain the difference between the nervous system and the endocrine system.

State what causes our blood sugar levels to rise.

Label the glands in the endocrine system.



Explain how our blood glucose levels are controlled. You must make reference to when they become too low and what happens when they go too high. **HIGHER TIER** – must make reference to glucagon.

Describe why hormones are often described as chemical messengers and how quickly they work.

Explain why the pituitary gland is often described as the master gland.

HIGHER TIER ONLY – why is glucose changed to glycogen in the liver?

Give examples of some of the hormones released by the pituitary gland.

Biology Chapter 5 – Coordination and control – maths skill and required practical

Define the term mean.

Define the estimate.

Explain why we take mean of results.

Describe what uncertainty is and how we calculate it.

Independent variable –

Dependent variable –

Control variables -

Draw a diagram to show the set up for the practical.

Describe a method used to investigate the reaction rate of a person.

Define the term repeatability and explain what this means.

What errors (random/ systematic) can occur in this practical and how could you overcome them?

State the result you would expect to see and explain why you would expect to see this.