

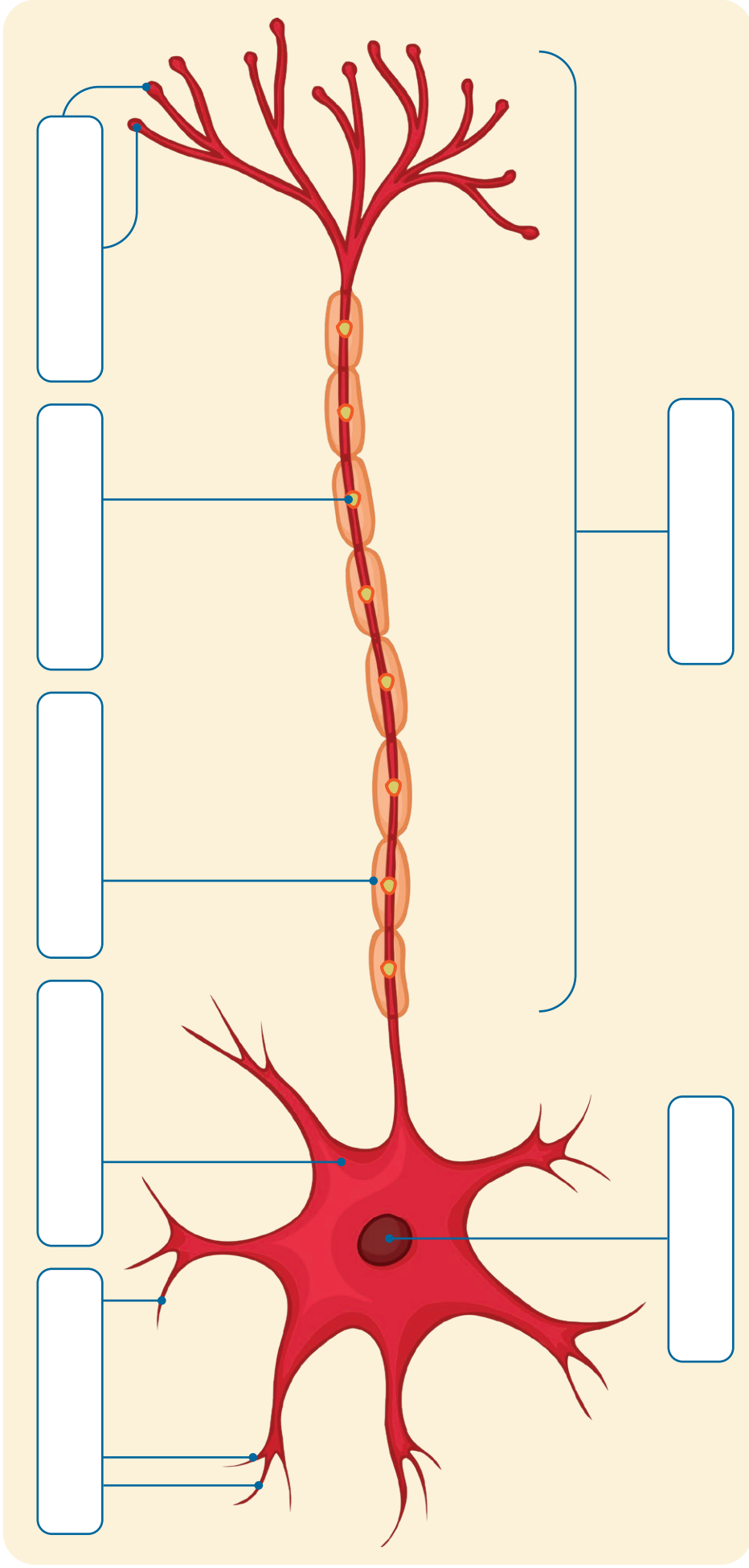


HOMWORK BOOKLET

B5 Foundation

Parts of a Neuron

Look at the word bank. Rewrite the labels in the proper boxes so that the neuron is correctly labelled.



Homework 1

Word bank

nucleus

axon

myelin sheath

dendrites

cell body

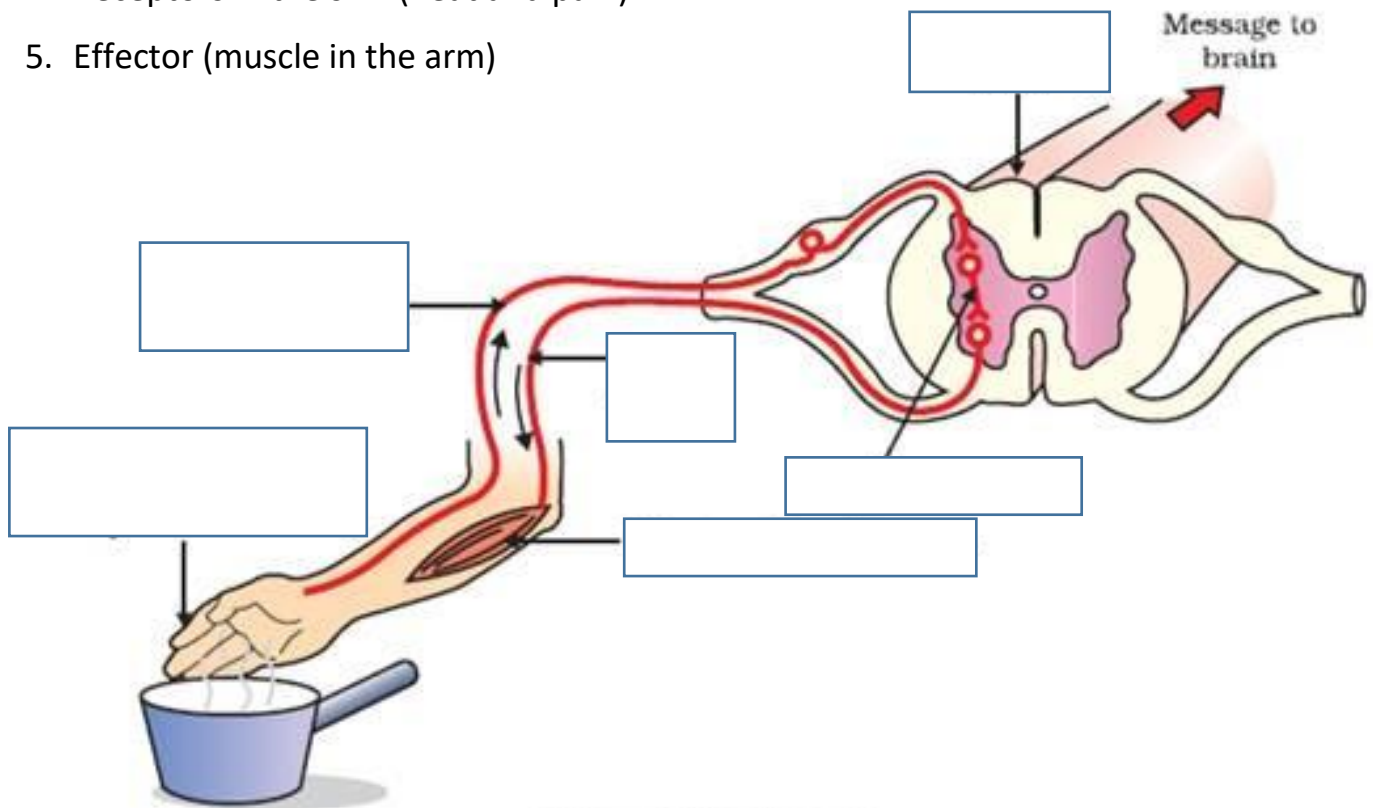
Schwann cell

axon terminals

The Reflex Arc

Use the keywords to label the reflex arc:

1. Sensory neurone
2. Spinal cord (CNS)
3. Relay neurone
4. Receptors in the skin (heat and pain)
5. Effector (muscle in the arm)



Questions:

A) Explain why reflex arcs are an automatic behaviour?

B) Give some examples of other reflexes:

C) Analyse the reasons why reflexes are useful to us?



Homeostasis and Response

Multiple Choice Questions

Homework 1

Set 1

Tick **one** box.

1. What is the scientific term for a nerve cell?
 - A. hormone
 - B. impulse
 - C. neurone
 - D. reflex

2. Which of these glands produces the hormone oestrogen?
 - A. adrenal gland
 - B. ovary
 - C. pituitary gland
 - D. testis

3. Which of these is kept at a constant level using homeostasis?
 - A. blood glucose level
 - B. muscle mass
 - C. bone density
 - D. percentage body fat

4. Which of these is **not** a part of a reflex arc?
 - A. decision
 - B. effector
 - C. receptor
 - D. stimulus

5. Which of these hormones stimulates sperm production?
 - A. adrenaline
 - B. insulin
 - C. testosterone
 - D. thyroxine

6. Which of these organs contains a receptor which detects changes in light levels?
 - A. ear
 - B. eye
 - C. skin
 - D. nose

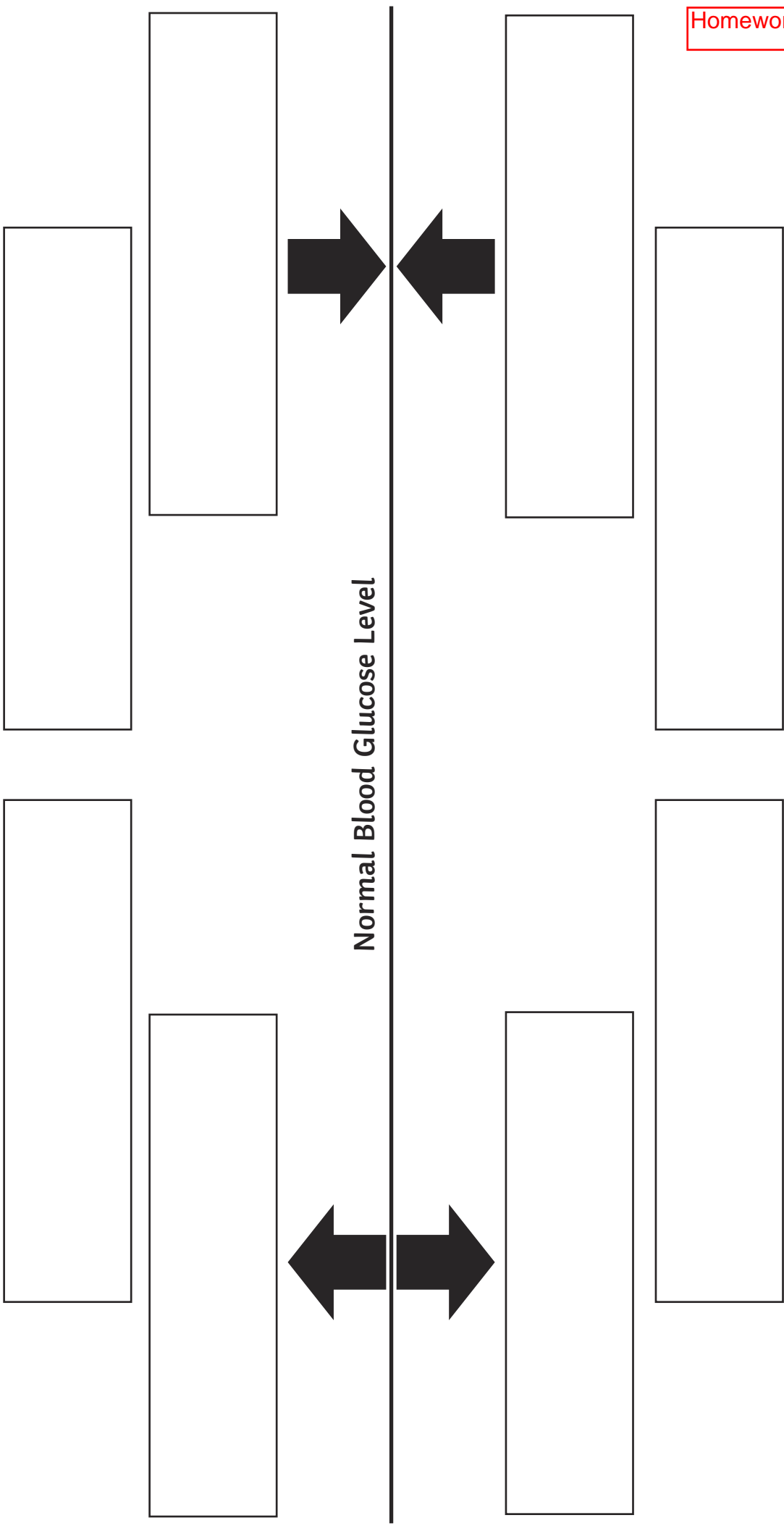


7. Which of these is a method of contraception which requires a surgical procedure?
- A. abstinence
 - B. contraceptive pill
 - C. spermicide
 - D. sterilisation
8. Which of these is an organ involved in keeping the blood glucose level constant?
- A. heart
 - B. kidneys
 - C. lungs
 - D. pancreas
9. Which of these methods of contraception is hormonal?
- A. condom
 - B. contraceptive pill
 - C. diaphragm
 - D. sterilisation
10. Which of these is a risk factor for Type 2 diabetes?
- A. blood type
 - B. eye colour
 - C. height
 - D. obesity

Receptors detect an increase in blood glucose.	Receptors detect a decrease in blood glucose.	The liver converts stored glycogen into glucose.
The pancreas secretes insulin .	The liver adds glucose to the blood.	The liver removes excess glucose from the blood.
The pancreas secretes glucagon .	The excess glucose is converted into glycogen and stored in the liver.	

Controlling Blood Glucose: Negative Feedback Loop

put them into the correct positions on the negative feedback loop below to show the sequence of events in the body to control blood glucose levels.





Hormones in the Menstrual Cycle

Sequencing Cards

Homework 2

Each of the statements describes a stage in the menstrual cycle. Number the statements in the correct order.

Progesterone is also produced in the ovaries.

This hormone allows the uterus lining to be maintained and inhibits the production of **luteinising hormone** (LH) and **follicle stimulating hormone** (FSH).

Follicle stimulating hormone (FSH) is a hormone produced by the pituitary gland.

This causes the lining of the uterus to thicken, stimulates the production of **luteinising hormone** (LH) and inhibits the production of **follicle stimulating hormone** (FSH).

Oestrogen is produced in the ovaries.

Luteinising hormone (LH) is produced by the pituitary gland. This stimulates the release of a mature egg cell from the ovary. This is called ovulation.

This causes an egg to mature in one of the ovaries and stimulates the production of **oestrogen**.



Homeostasis and Response

Multiple Choice Questions

Homework 2

Set 2

Tick **one** box.

- Which neurone is responsible for sending a nerve impulse from the receptor to the central nervous system?
 - motor
 - relay
 - sensory
 - specialised

- Which of these methods of contraception will also protect from sexually transmitted infections when used correctly?
 - condom
 - contraceptive implant
 - contraceptive pill
 - spermicide

- Which of these is **not** part of the reflex arc which occurs as a result of stepping on a pin with your foot?
 - conscious part of the brain
 - leg muscles
 - sensory neurone
 - spinal cord

- Which gland is also known as the 'master gland'?
 - adrenal
 - ovary
 - pituitary
 - thyroid

- Which of these changes occurs in response to an increase in the production of testosterone during puberty?
 - breast growth
 - maturation of eggs
 - release of eggs
 - sperm production



6. Which of these is a part of the central nervous system?

- A. brain
- B. eye
- C. motor neurone
- D. sensory neurone

7. What happens during ovulation?

- A. breakdown of the lining of the uterus
- B. growth of the foetus
- C. maturation of the egg in the ovary
- D. release of the egg from the ovary

8. Which of these is a specialised feature of neurones?

- A. cell membrane
- B. chloroplasts
- C. myelin sheath
- D. nucleus

9. Which of these is true about responses brought about by the nervous system?

- A. they affect the whole body
- B. they transfer information through the blood
- C. they are long-lasting
- D. they are rapid

10. Which of these is true about Type 2 diabetes?

- A. it is caused by the immune system attacking cells which produce insulin
- B. it is contagious
- C. it is controlled with a healthy balanced diet and exercise
- D. it is treated with insulin injections