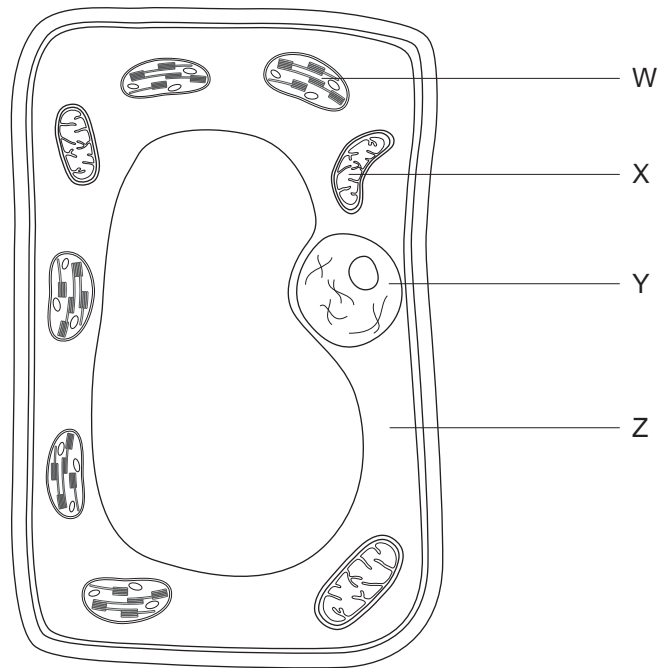


Section A: Living organisms and the environment

A1: Living organisms and cells

- 1 Which of the following activities is defined as 'the breakdown of food to release energy'?
- (A) nutrition (A)
 - (B) respiration (B)
 - (C) excretion (C)
 - (D) photosynthesis (D)
- 2 Which of the following is NOT a feature of ALL living organisms?
- (A) Releasing metabolic waste products. (A)
 - (B) Responding to environmental changes. (B)
 - (C) Feeding to obtain or make energy-containing compounds. (C)
 - (D) Moving from one place to another to obtain food. (D)
- 3 A typical animal cell differs from a typical plant cell as the animal cell lacks
- I a cellulose cell wall.
 - II a cell membrane.
 - III chloroplasts.
 - IV a nucleus.
- (A) I only (A)
 - (B) I and III only (B)
 - (C) II and IV only (C)
 - (D) I, II and III only (D)

Items 4–5 refer to the diagram below, showing an unspecialised plant cell.



4 Identify the cellular structure labelled **X**.

- (A) mitochondrion
- (B) chloroplast
- (C) cytoplasm
- (D) nucleus

- (A)
- (B)
- (C)
- (D)

5 Which of the labelled structures is the site of photosynthesis?

- (A) W
- (B) X
- (C) Y
- (D) Z

- (A)
- (B)
- (C)
- (D)

6 Which organelle below is INCORRECTLY matched to its function?

	Organelle	Function	
(A)	ribosome	site of protein synthesis	(A)
(B)	mitochondrion	site of respiration	(B)
(C)	cell membrane	controls substances entering and leaving the cell	(C)
(D)	endoplasmic reticulum	supports the cell when turgid	(D)

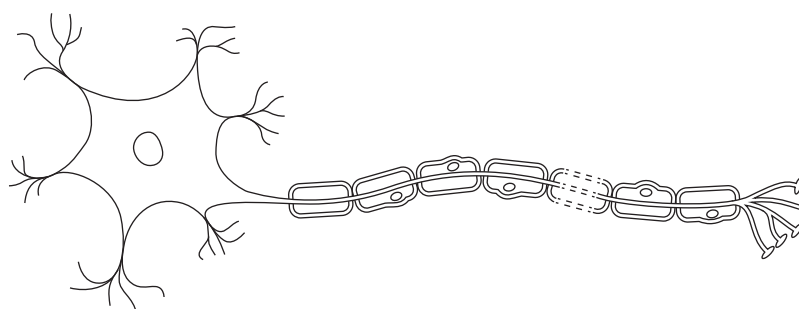
7 Hyphae are thin filaments that form the body of a

- (A) virus. (A)
- (B) fungus. (B)
- (C) bacterium. (C)
- (D) protozoan. (D)

8 Which of the following statements about viruses is TRUE?

- (A) They show all the characteristics of living organisms. (A)
- (B) They have an outer coat made of cellulose. (B)
- (C) They have membrane-bound organelles in their cytoplasm. (C)
- (D) They can only reproduce inside other living cells. (D)

Item 9 refers to the following diagram, showing a specialised cell of the human body.



9 Which cell is shown in the diagram?

- (A) muscle (A)
- (B) nerve (B)
- (C) sperm (C)
- (D) epithelial (D)