A. Principles of organisation

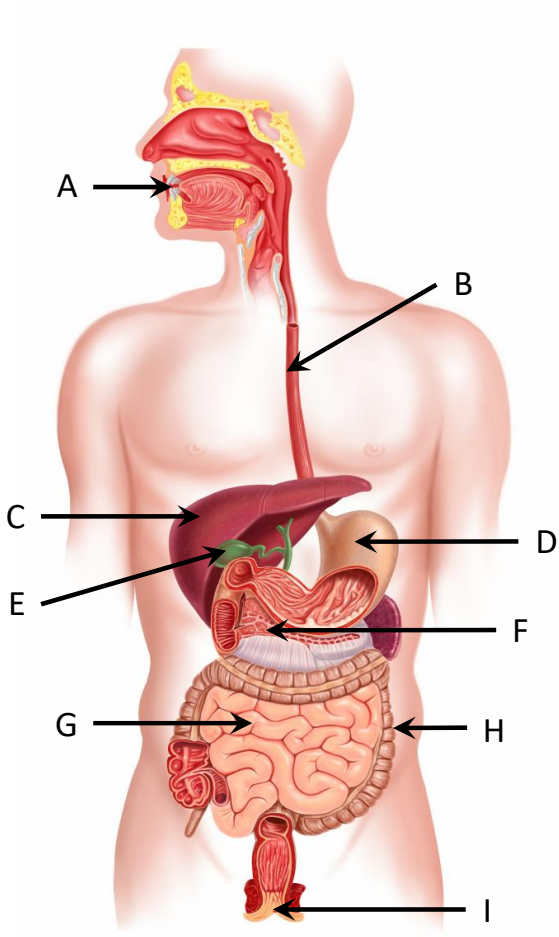
1. Put the following in order of size from the smallest to the largest:

organ	**organism**	**cell**	**tissue**	**organ system**

2. Define each of the words in the box.

B. Animal tissues, organs and organ systems Part 1

1. Name parts A - I of the digestive system from the diagram below:



2. What is digestion?

3. What is an enzyme?

4. Copy and complete the table below:

Digestive Enzyme	Where released?	Breakdown what?
Amylase		
Protease		
Lipase		

5. What biological molecule are enzymes made of?

6. What is the active site of an enzyme?

7. What is a substrate?

8. What are the products of digestion used for in the body?

9. What does denatured mean?

10. How does increasing the temperature affect enzyme activity?

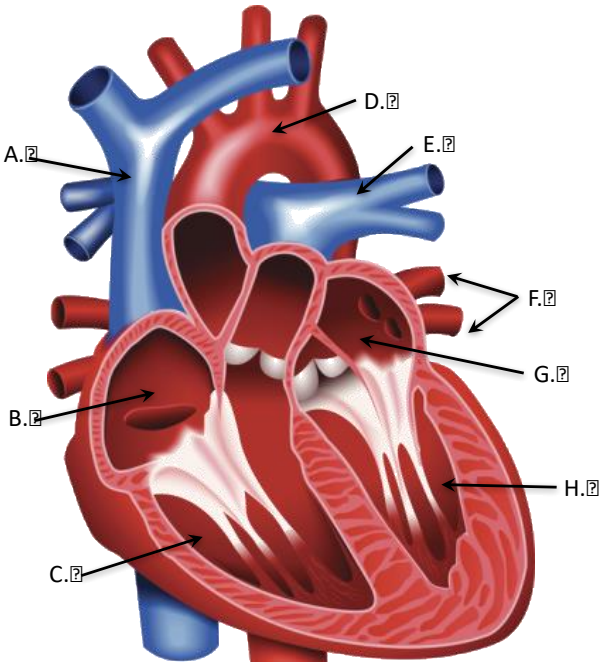
11. How does pH affect enzyme activity?

12. What is the role of bile in digestion?

13. Where in the body is bile made?

C. Animal tissues, organs and organ systems Part 2

1. Name parts A - H of the heart from the diagram below:



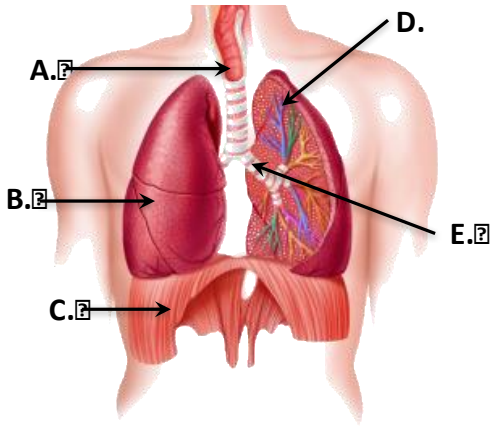
2. What is a double circulatory system?

3. What is a pacemaker?

4. What is the role of the coronary arteries?

5. Where does the left atrium pump blood to?

6. Name parts A - E of the lung from the diagram:



7. Where does gas exchange take place in the lungs?

8. Name the gas that moves from the blood into the lungs.

9. Name the blood vessels that carry blood away from the heart.

10. Which blood vessels are only one cell thick?

11. Which blood vessels have thick muscular walls?

12. Which blood vessels have valves?

13. What is plasma?

14. What is the role of a red blood cell?

15. In what two ways can white blood cells fight infection?

16. What is the role of platelets?

17. What is coronary heart disease?

18. What are the risk factors for coronary heart disease?

19. What is a stent?

20. What are statins?

21. What is the role of heart valves?

22. Give two faults that can occur with heart valves.

23. What treatment can be given to a person with faulty heart valves?

24. Name three conditions that can lead to heart failure.

B. Animal tissues, organs and organ systems Part 3

1. Define the word health.

2. What are communicable diseases?

3. What are non-communicable diseases?

4. Name 4 ways that different types of disease can interact to make a person ill.

5. List some human costs of non-communicable diseases.

6. List some financial costs of non-communicable diseases.

7. Name two other risk factors that affect health.

8. What are the risk factors for cardio vascular disease?

9. What is a risk factor for Type 2 diabetes?

10. How does alcohol cause liver disease?

11. What does alcohol damage in the brain?

12. What is COPD?

13. Give two examples of COPD.

14. What is the main cause of COPD?

15. What is the biggest risk factor for lung cancer?

16. What are the symptoms of lung cancer?

17. What are the risks of smoking while pregnant?

18. What is the risk of heavy drinking throughout pregnancy?

19. What is a carcinogen?

20. How can carcinogens cause cancer?

21. Name four types of carcinogens?

22. What is a tumour?

23. What are benign tumours?

24. What are malignant tumours?

25. Which type of tumour is cancerous?

B. Plant tissues, organs and systems

1. What is a plant tissue?

2. Copy and complete the table for the five types of plant tissue:

Plant tissue	Description and function
Epidermal	
Palisade mesophyll	
Spongy mesophyll	
Xylem and phloem	
Meristem	

3. What is the role of the leaf organ?

4. What is the role of the guard cells?

5. What is a plant organ?

6. Name the organs in the plant organ system that transports substances around the plant.

7. What is the role of the root hair cell?

8. What is transpiration?

9. What is translocation?

10. What factors increase the rate of transpiration?