

Biology

2. Organisation

Revisiting Booklet

Name:

Principles of organisation

What is a cell?

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What is a tissue?

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What is an organ?

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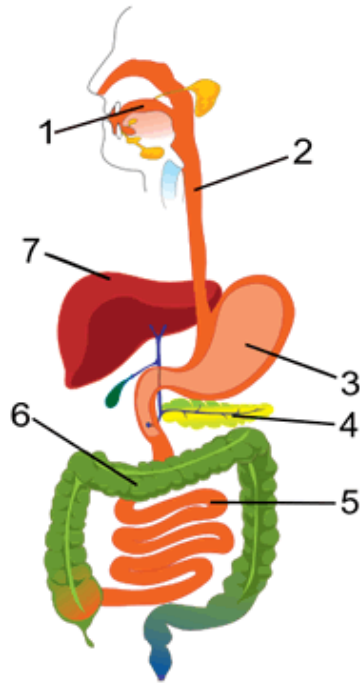
What is an organ system?

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Animal tissues, organs and organ systems

Label the organs in the digestive system. Describe their function.



What is a catalyst?

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What is the role of enzymes in the digestive system?

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Draw a diagram to show the lock and key mechanism.

Complete the table to show how different types of enzymes:

Name of enzyme	Where does it work?	What does it do?	What products are made?
Amylase as a carbohydrase			
Protease			
Lipase			

Why does the stomach produce hydrochloric acid?

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What is the role of bile and where is it made?

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What happens to enzymes at high temperatures?

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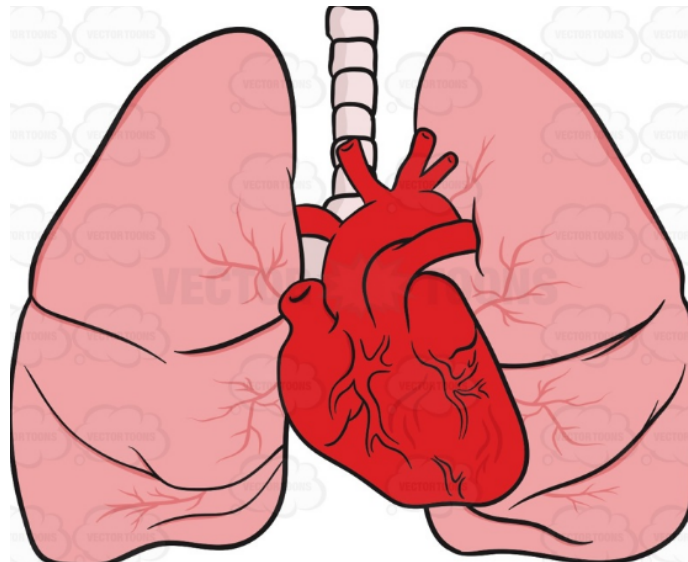
What happens to enzymes at extreme pH?

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Label the lungs below



What is the function of the lungs?

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Label the heart below



How is the resting heart beat of the heart controlled?

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Name the three types of blood vessel:

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Outline how the structure of the blood vessel relates to function

Type of blood vessel	Type of blood carried	Diagram of structure	List of key structural features

Complete the table below to name the components of blood and what their function is

Component	Picture	Function
		
		
		

Outline what happens to a heart when it is suffering with coronary heart disease.

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What is the impact of the above?

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There are different ways to treat coronary heart disease: drugs, mechanical devices or transplants. For each, state an advantage and a disadvantage.

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In some cases, the heart can develop problems with the valves. The valves can become faulty by _____ the valve from opening fully or the heart valve might develop a _____. What are the consequences of having faulty heart valves?

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If a heart fails, what can be done to support the patient?

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Define the key words:

Health

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Disease

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What additional factors might affect health?

1.
2.
3.

There are two types of disease: communicable and non-communicable. Give an example of each.

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Non-communicable diseases have a cost, both human and financial. What does this mean?

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How do non-communicable diseases affect the following:

Individual:

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Local community

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Nation

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Global

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Name three lifestyle factors that effect the incidence of non-communicable disease.

1.

2.

3.

What is a “risk factor”?

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What is meant by the term “causal mechanism”?

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Why is the causal mechanism for a non-communicable disease hard to identify?

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Complete the summary table below showing the risk factors which have been shown to be the causal mechanism for some diseases.

Risk Factor	Disease
<p>_____</p> <p>_____</p> <p>_____</p>	Cardiovascular disease
<p>_____</p>	Type 2 diabetes
<p>_____</p>	Liver and brain function
<p>_____</p>	Lung disease Cancer
<p>_____</p> <p>_____</p>	Unborn babies
<p>_____</p>	Cancer

Cancer has many risk factors which increase the chance of a person getting it.

Name the two overall risk factors for cancer.

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What actually causes cancer, biologically?

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Define:

Benign

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Malignant

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Plant tissues, organs and systems

Type of tissue	Function
Epidermal	
Spongy mesophyll	
Palisade mesophyll	
Meristem tissue	
Guard cells and stomata	

Name an organ in a plant.

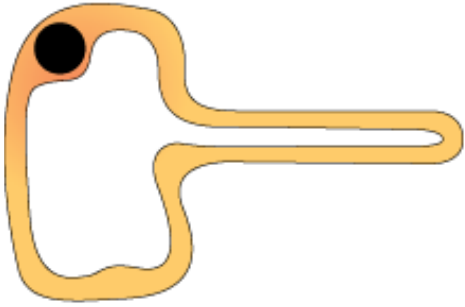
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The roots, stem and leaves of a plant form an organ system. What is the main function of this organ system?

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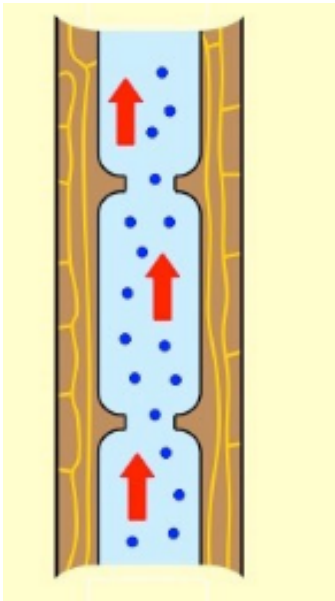
Name the plant cell or tissue below. State how its **structure** is adapted for **function**.



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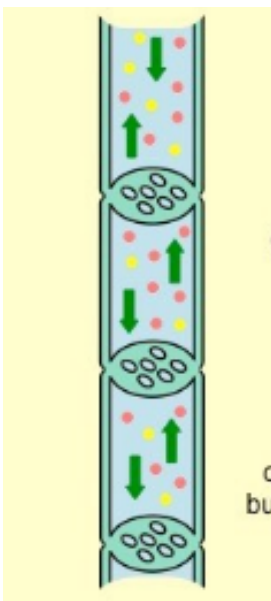
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What is transpiration?

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Name the factors that affect transpiration:

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2.

3.

4.