

Paper 1

Chapter 2 — Organisation

Organisation

All living things are made of c_____.

A t_____ is a group of similar cells.

An o_____ is several tissues working together to perform a function.

An o_____ s_____ is a group of organs working together to perform a function.

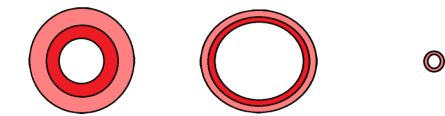
An o_____ is a collection of organ systems

E_____ catalyse specific reactions in living organisms due to the shape of their a___ site.

Enzyme activity may be effected by t_____ and p_ changes.

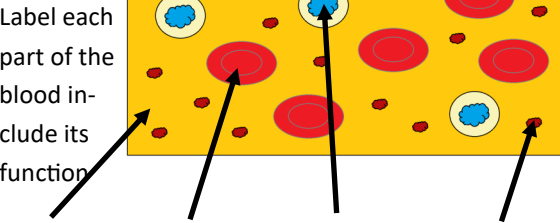
Blood Vessels

Label the blood vessel



Add any adaptations of each

Blood



Digestion

Large insoluble food	Enzyme that breaks	Small soluble product	Locations in the body
Carbohydrate (starch) 			
Protein 			
Lipids (Fats) 			

The products of digestion are used to build new molecules of c_____, l____ and p_____.

Some glucose is used in r_____.

Bile is made in the l_____ and stored in the g__ b_____. It is a _____ so neutralises s_____ a_____.

Bile e_____ fat into small droplets to increase the s_____ a_____.

Food Tests

Complete the table to show the food tests for sugar, starch and protein.

Food Group	Test Chemical	Start Colour	Positive Result Colour
Sugar			
Starch			
Protein			

Cancer

Cancer is a change in cells that lead to uncontrolled g_____ and d_____.

There are also g_____ risk factors for some cancers.

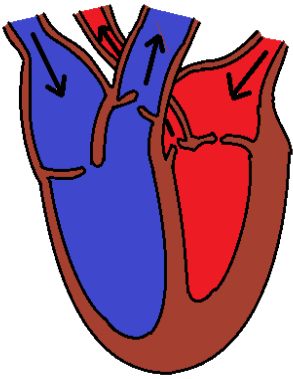
What kind of tumours are these?

Stay in one area and don't spread to other parts of the body. Non-cancerous.

Spread to different areas and cause secondary tumours. Cancerous.

The Heart

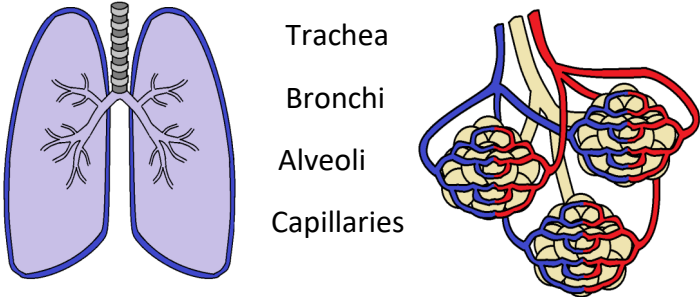
Add labels to the diagram and destinations of vessels



The natural resting heart rate is controlled by a group of c_____ located in the r_____ a_____ that act as a p_____. A_____ pacemakers are electrical devices used to correct irregularities in the heart rate.

The Lungs

Draw arrows answer questions



What gas enters the blood in the lungs?

What gas leaves the blood in the lungs?

Why are there millions of small alveoli instead of 1 big one?

Heart Disease

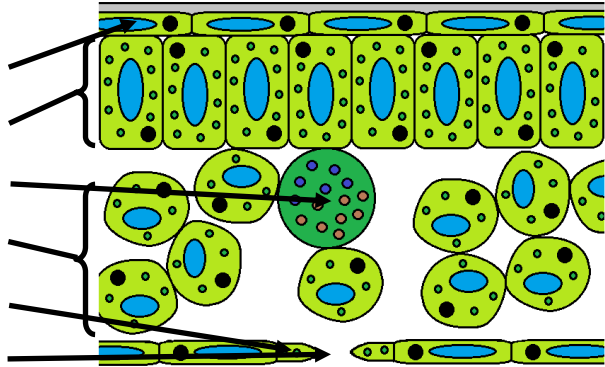
- Which arteries are blocked by fatty deposits, reducing blood flow to heart muscle and causing a heart attack?
- What can be used to hold arteries open?
- Which drug reduces blood cholesterol and slows the blocking of arteries with fatty deposits?
- Which part of the heart may become faulty, causing blood to flow the wrong way or reducing blood flow?
- What is a person called if they give their heart to another person when they die?

Health

- Health is the state of p_____ and m_____ well-being. C_____ diseases can be passed on to other people.
- A defective i_____ s_____ may make infectious diseases more likely. Some v_____ can cause cancer. Pathogens can cause a_____ reactions such as skin rashes and a_____. Physical illness can lead to d_____ and other mental illness.
- Poor d_____, s_____ and low e_____ levels are risk factors for cardiovascular disease.
 - O_____ is a risk factor for Type 2 diabetes.
 - A_____ may damage the liver and impair brain function.
 - S_____ is a risk factor for lung disease and lung cancer.
 - S_____ and drinking a_____ during pregnancy may damage the unborn baby.
 - C_____ and i_____ radiation are risk factors for c_____.



Plant Tissue



Add the words to the table

Transpiration, Carry Water, Carry dissolved sugar, From roots to leaves, From leaves to roots, Translocation, Carry Minerals

Xylem	Phloem

What tissue is found at the growing tips of shoots and roots?

Name 4 weather changes that would increase the rate of transpiration in plants

-
-
-
-

Paper 1

Chapter 2 — Organisation

Organisation

All living things are made of **cells**.

A **tissue** is a group of similar cells.

An **organ** is several tissues working together to perform a function.

An **organ system** is a group of organs working together to perform a function.

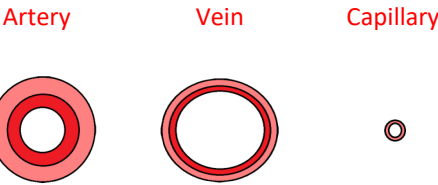
An **organism** is a collection of organ systems

Enzymes catalyse specific reactions in living organisms due to the shape of their **active** site.

Enzyme activity may be effected by **tempera-**
ture and **pH** changes.

Blood Vessels

Label the blood vessel



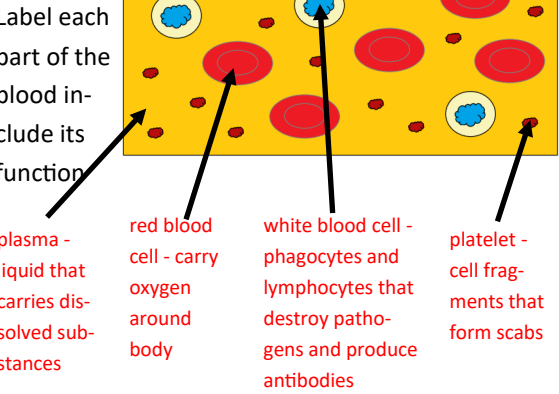
Add any adaptations of each

Artery - Thick elastic muscular wall, small lumen, carries high pressure blood.

Vein - Thinner walls, larger lumen, one way valves, carries low pressure blood

Capillary - Thin walls to aid diffusion, many small capillaries give large surface area

Blood



Digestion

Large insoluble food molecule	Enzyme that breaks it down	Small soluble product	Locations in the body
Carbohydrate (starch) 	Carbohydrase (Amylase)	Simple Sugars 	(Salivary Glands), Pan-creas, Small Intestine
Protein 	Protease	Amino Acids 	Stomach, Pancreas, Small Intestine
Lipids (Fats) 	Lipase	Fatty Acids Glycerol 	Pancreas, Small Intes-tine

The products of digestion are used to build new molecules of **carbohydrate**, **lipid** and **protein**.

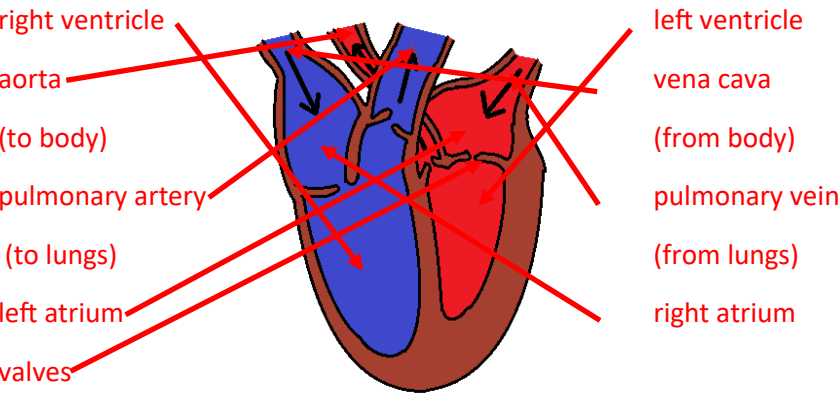
Some glucose is used in **respiration**.

Bile is made in the **liver** and stored in the **gall bladder**. It is **alkaline** so neutralises **stomach acid**.

Bile **emulsifies** fat into small droplets to increase the **surface area**.

The Heart

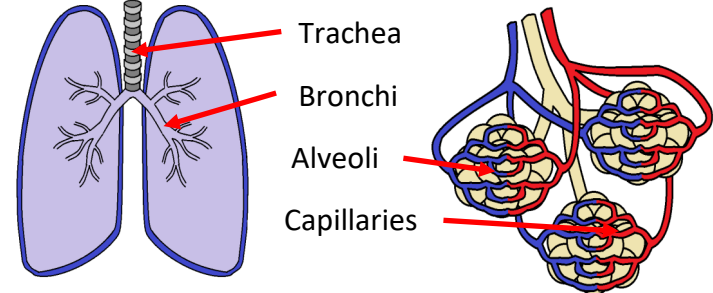
Add labels to the diagram and destinations of vessels



The natural resting heart rate is controlled by a group of **cells** located in the **right atrium** that act as a **pacemaker**. **Artificial** pacemakers are electrical devices used to correct irregularities in the heart rate.

The Lungs

Draw arrows answer questions



What gas enters the blood in the lungs? **Oxygen**

What gas leaves the blood in the lungs? **Carbon Dioxide**

Why are there millions of small alveoli instead of 1 big one? **Increase the surface area for diffusion**

Food Tests

Complete the table to show the food tests for sugar, starch and protein.

Food Group	Test Chemical	Start Colour	Positive Result Colour
Sugar	Benedict's Solution	Blue	Green/Orange
Starch	Iodine	Orange	Blue/ Black
Protein	Biuret Rea-gent	Blue	Purple

Cancer

Cancer is a change in cells that lead to uncontrolled **growth** and **division**.

There are also **genetic** risk factors for some cancers.

What kind of tumours are these?

Stay in one area and don't spread to other parts of the body. Non-cancerous.

Benign

Spread to different areas and cause secondary tumours. Cancerous.

Malignant

Heart Disease

- Which arteries are blocked by fatty deposits, reducing blood flow to heart muscle and causing a heart attack? **Coronary Arteries**
- What can be used to hold arteries open? **A stent**
- Which drug reduces blood cholesterol and slows the blocking of arteries with fatty deposits? **Statins**
- Which part of the heart may become faulty, causing blood to flow the wrong way or reducing blood flow? **The valves**
- What is a person called if they give their heart to another person when they die? **A donor**

Health

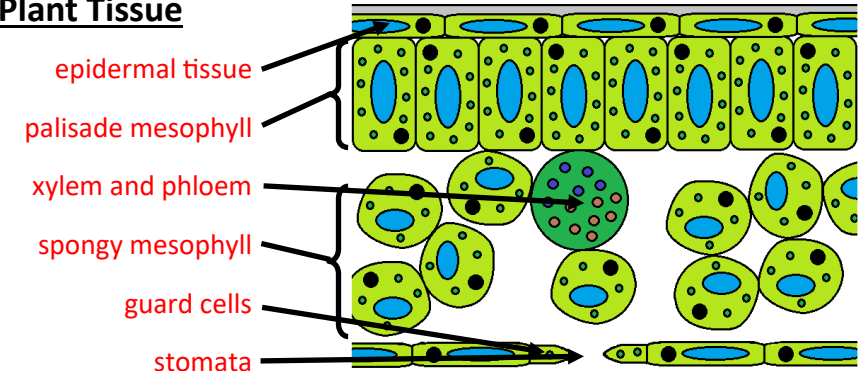
Health is the state of **physical** and **mental** well-being. **Communicable** diseases can be passed on to other people.

A defective **immune system** may make infectious diseases more likely. Some **viruses** can cause cancer. Pathogens can cause **allergic** reactions such as skin rashes and **asthma**. Physical illness can lead to **depression** and other mental illness.

- Poor **diet**, **smoking** and low **exercise** levels are risk factors for cardiovascular disease.
- Obesity** is a risk factor for Type 2 diabetes.
- Alcohol** may damage the liver and impair brain function.
- Smoking** is a risk factor for lung disease and lung cancer.
- Smoking** and drinking **alcohol** during pregnancy may damage the unborn baby.
- Carcinogens** and **ionising** radiation are risk factors for **cancer**.



Plant Tissue



Add the words to the table

Transpiration, Carry Water, Carry dissolved sugar, From roots to leaves, From leaves to roots, Translocation, Carry Minerals

Xylem	Phloem
Transpiration Carry Water Carry Minerals From roots to leaves	Translocation Carry Dissolved Sugar From leaves to roots

What tissue is found at the growing tips of shoots and roots?

Meristem Tissue

Name 4 weather changes that would increase the rate of transpiration in plants

- Hotter**
- Dryer**
- Windier**
- Sunnier/Lighter**