The heart and blood cells

- Specialised cells are those cells which do a special job
- for example white blood cells, they fight against the diseases
- for example red blood cells, they make blood for our body and supply to the heart

The heart

What does the heart do?

- The heart is like a pump machine inside your chest
- It push is blood to your lungs and to your whole body
- It is made up of strong muscle because it works all the time day and night

Why does The left ventricle have thick walls

- The left ventricle pushes blood to the whole body even to your toes and head
- Because the distance is long, it needs very strong walls
- This is why left ventricle is thicker than the right ventricle

What are valves? why they are important

- Valves are like doors inside the heart
- These doors open to let blood go forward
- The close to stop blood from going backward

- Valves make sure blood goes in correct direction only

Flow of blood

Blood comes from body and goes into the right atrium

- This blood has no oxygen because the body used it
- It enter the right Atrium like a room where it waits

Right atrium to right ventricle

- A valves open
- Blood goes down to the right ventricle

right ventricle to lungs

- The right ventricle pushes blood to the lungs
- In the lungs the blood gets oxygen

Lungs to left atrium

- Now the blood is full of oxygen
- it enters the left atrium

Left atrium to left ventricle

- Blood moves down into the left ventrical

Left ventricle to the body

- The left ventricle gives a big push
- blood Travels around the whole body with oxygen

Red blood cells

What do RBSc do?

- Red blood cells carry oxygen from lungs to every part of the body

Special shape “BICONCAVE”



- their shape looks like a donut without a whole
- This shapes give a large surface
- a large surface helps red blood cells pick up more oxygen

Contain haemoglobin

- Hemoglobin is a red protein inside the red blood cell
- It sticks to oxygen in the lungs

No nucleus

- Red blood cells do not have a nucleus
- Because of this they have more space for homoglobin
- if there is more haemoglobin so more oxygen is carried

Blood vessels

There are three types of blood vessels

Arteries

- Artery carry blood away from the heart
- Blood inside the arteries is under high pressure because heart pushes it very strongly
- They have thick outer walls to stay strong
- Thick muscles layers to handle high pressure
- Elastic fibres stretch and return to shape

Veins

- Vein carry blood towards the heart
- Pressure is low in veins
- Thin walls because pressure is low
- large lumen easier for blood to flow
- valves also stop blood from moving backward

Capillaries

- Capillaries are the smallest blood vessels
- they connect arteries to veins
- their job is to Give nutrients like oxygen and glucose to the cells
- They take waste like carbon dioxide from cells

They have very thin walls

This makes it easy for food Oxygen and waste to move across