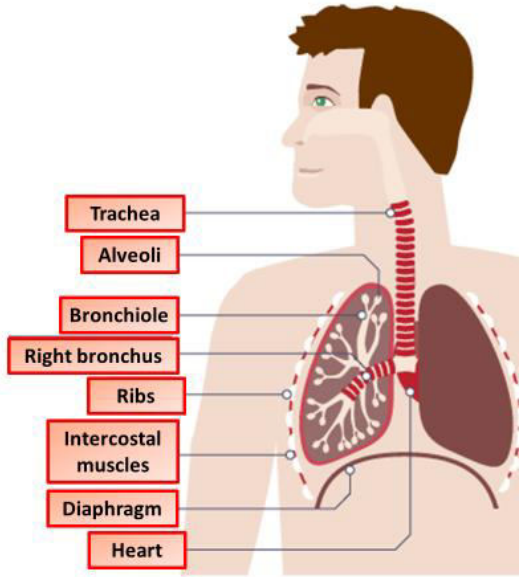
Make a model of the lungs! You can use items around your house, and don't forget labels!

You have 1 hour to complete this task

Background Information

Useful information



The human respiratory system contains the organs that allow us to get the oxygen we need and to remove the waste carbon dioxide we do not need. It contains these parts: two lungs. tubes leading from the mouth and nose to the lungs.

After you have completed the task don't forget to send in a photo of what you've done

Make a model alveolus! You can use items around your house, and don't forget labels!

You have 1 hour to complete this task

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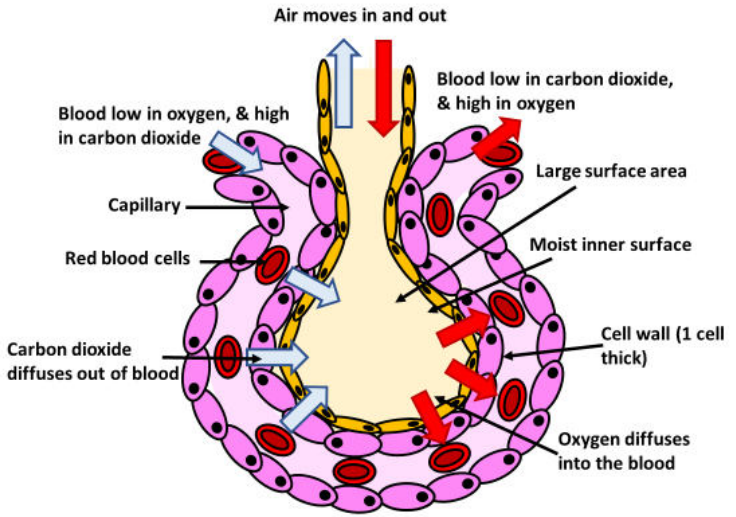

The alveoli are adapted to make gas exchange in lungs happen easily and efficiently., they give the lungs a really big surface area. they have moist, thin walls (just one cell thick) they have a lot of tiny blood vessels called capillaries.

After you have completed the task don't forget to send in a photo of what you've done

Make a model blood vessel! You can use items around your house, and don't forget labels!

You have 1 hour to complete this task

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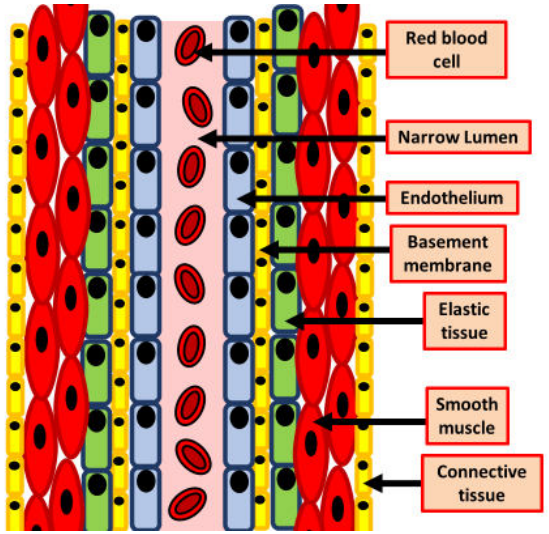

Arteries have a narrow internal diameter and thick muscular walls. This allows them to carry blood that is at a high pressure. The vein walls have thinner muscular walls than arteries and have a wider internal diameter. Veins contain valves to prevent the backflow of low-pressure blood.

After you have completed the task don't forget to send in a photo of what you've done

Make a model of a bacteria cell! You can use items around your house, and don't forget labels!

You have 1 hour to complete this task

Background Information

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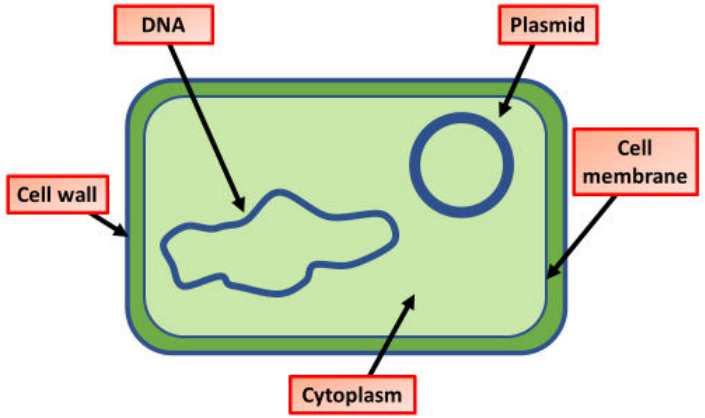

Bacteria are amongst the simplest of organisms - they are made of single cells. Their cell structure is simpler than the cells of eukaryotes and cells are smaller, most are 0.2 µm - 2.0 µm. These cells do not contain membrane bound organelles such as a nucleus and mitochondria.

After you have completed the task don't forget to send in a photo of what you've done

Make a model of the digestive system! You can use items around your house, and don't forget labels!

You have 1 hour to complete this task

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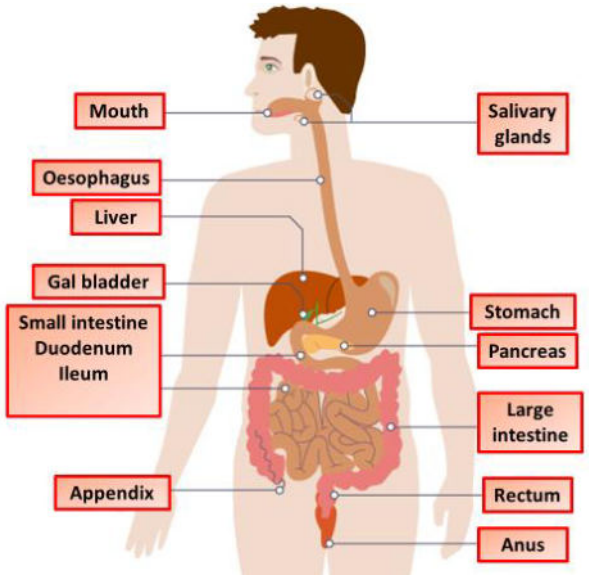

Most of the digested food passes through the epithelial cells of the gut wall and is carried by blood to the liver. Digested lipids pass through the gut wall and enter the lacteals. The lacteals in each villus join together into larger vessels. Then all the digested lipids pass through a duct into the bloodstream.

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Make a model villus! You can use items around your house, and don't forget labels!

You have 1 hour to complete this task

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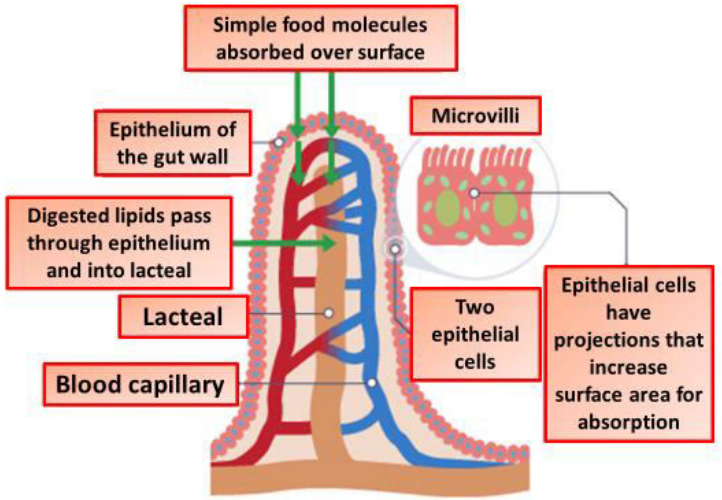

The villi (one is called a villus) are tiny, finger-shaped structures that increase the surface area. They have several important features: wall just one cell thick - ensures that there is only a short distance for absorption to happen by diffusion and active transport.

After you have completed the task don't forget to send in a photo of what you've done

Make a model showing how enzymes work! You can use items around your house, and don't forget labels!

You have 1 hour to complete this task

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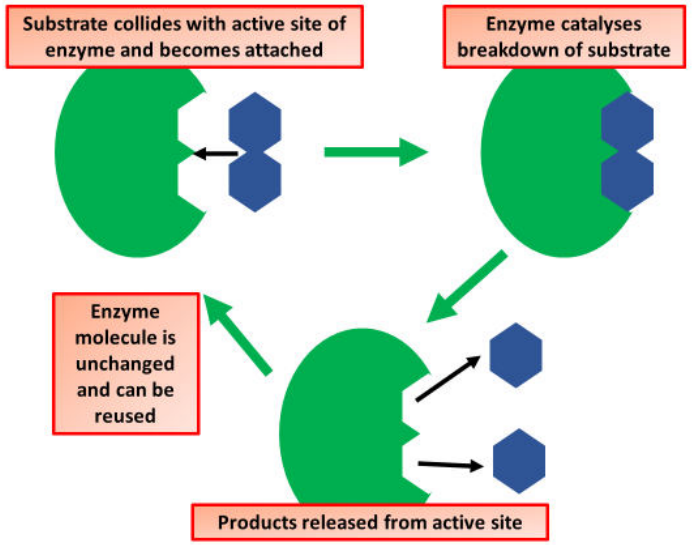

Enzymes are folded into complex 3D shapes that allow smaller molecules to fit into them.. In this example, the enzyme splits one molecule into two smaller ones. The breakdown of a substrate molecule by an enzyme. Other enzymes join smaller substrate molecules together into larger ones.

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