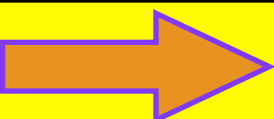


Eating and Digestion

Learning Objective:

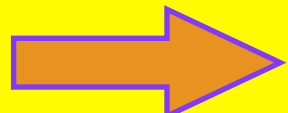
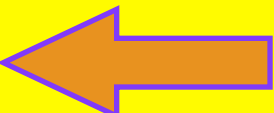
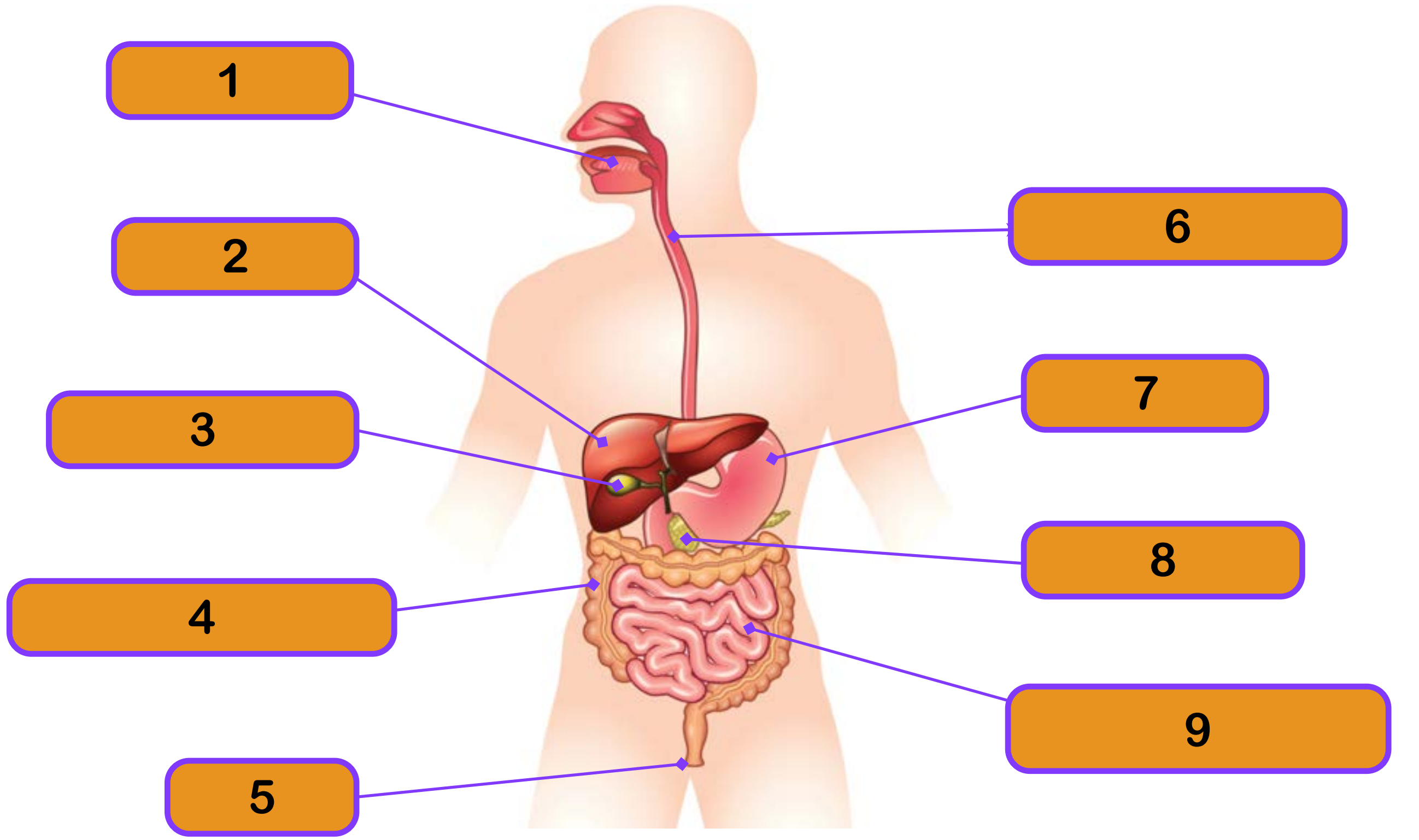
To be able to describe the functions of the basic parts of the digestive system.



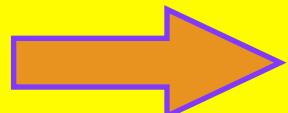
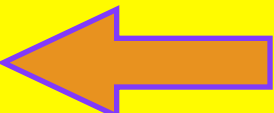
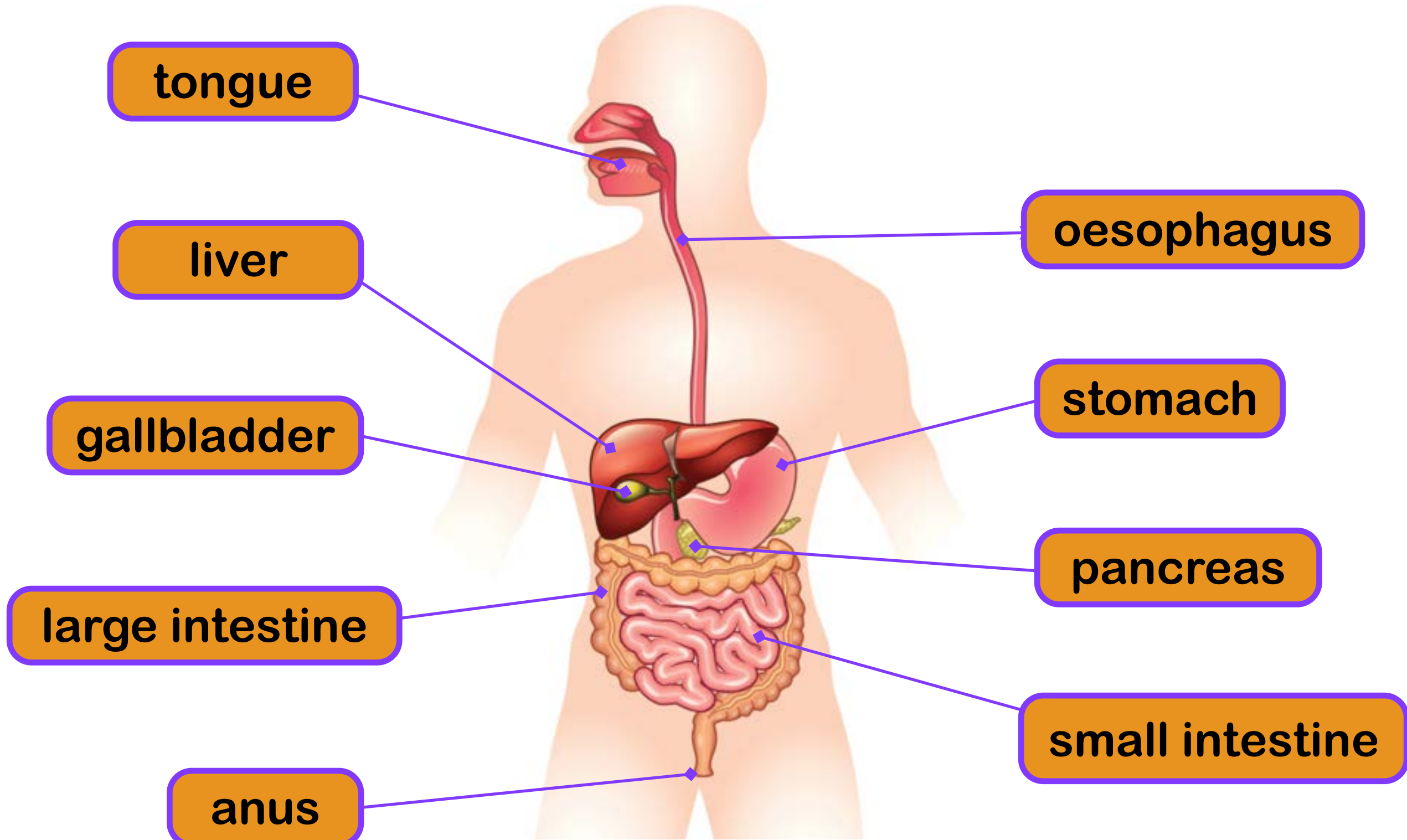
What can you remember about how your digestive system works?



Can you remember what any of these organs are called ?



How many did you get right?



Today we will be exploring the journey our food takes through our bodies in more detail.

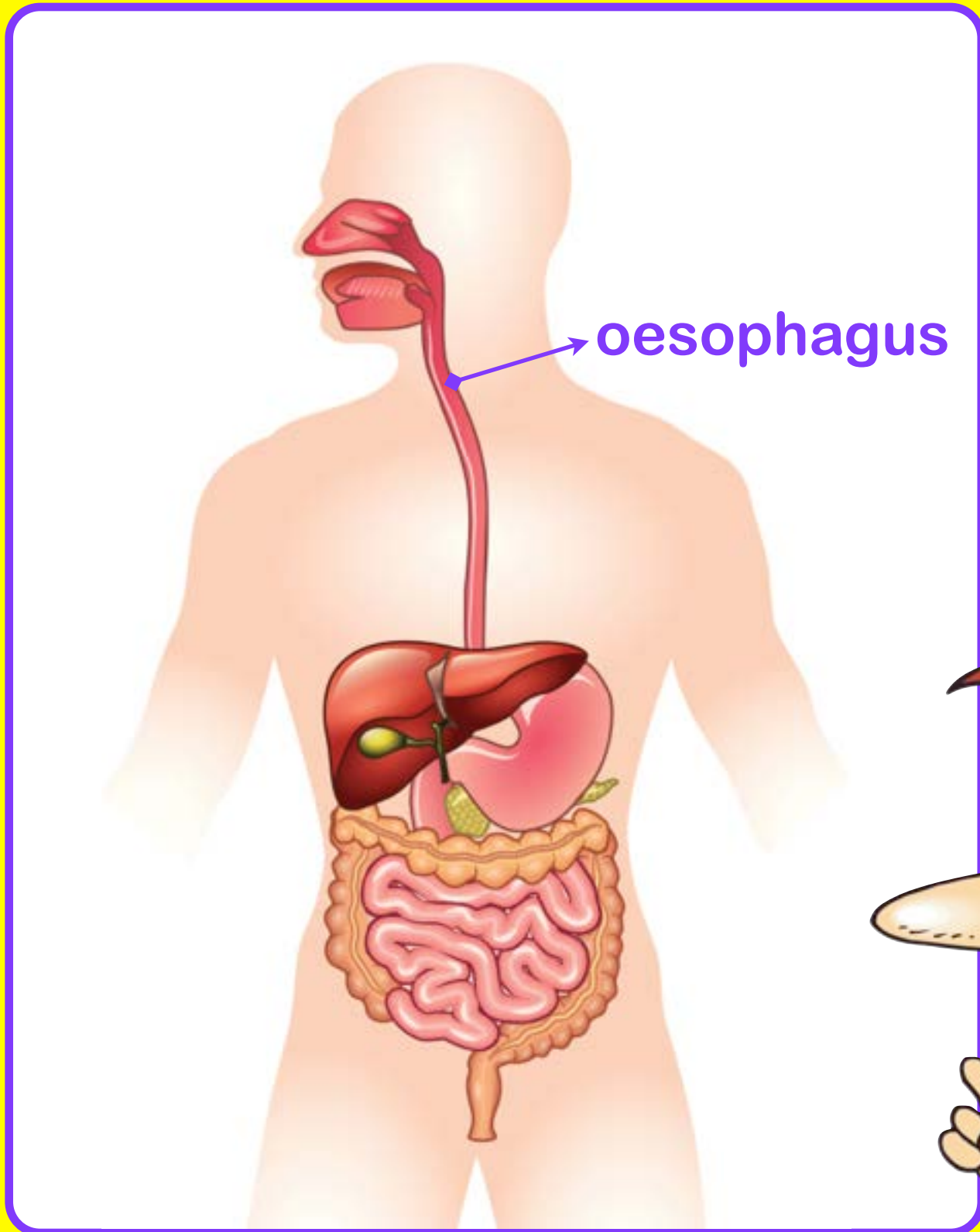
How long do you think it takes for food to pass through your digestive system?



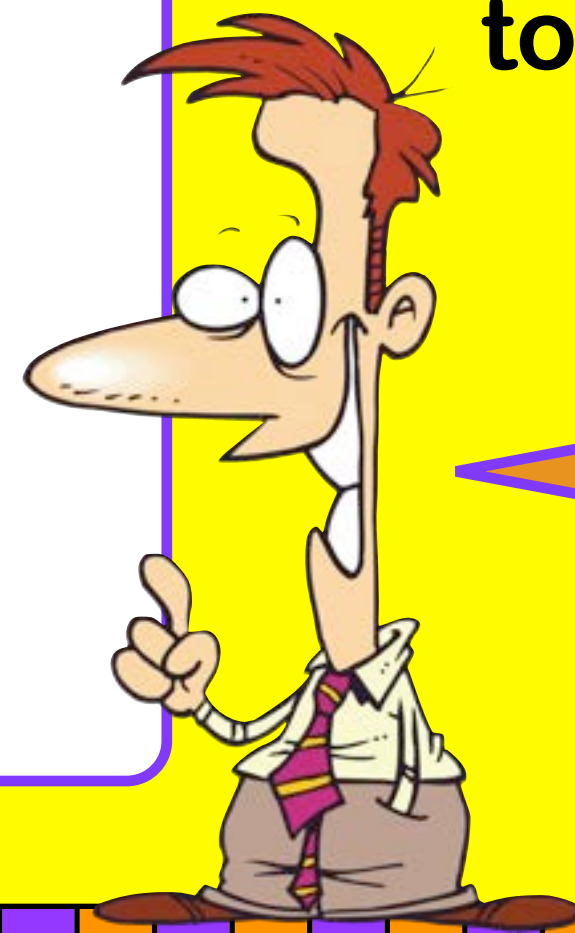
It takes between 24 hours and 72 hours for food to pass through your digestive system. The first step of the journey starts the moment you put food in your mouth.

Your teeth and tongue help to break down the food so you can swallow it. Saliva (spit) has enzymes which also help to break down the food. That is why it is important to chew your food properly, so the enzymes can start to work.

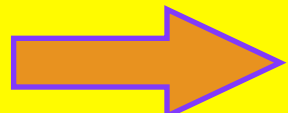
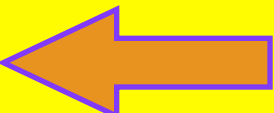


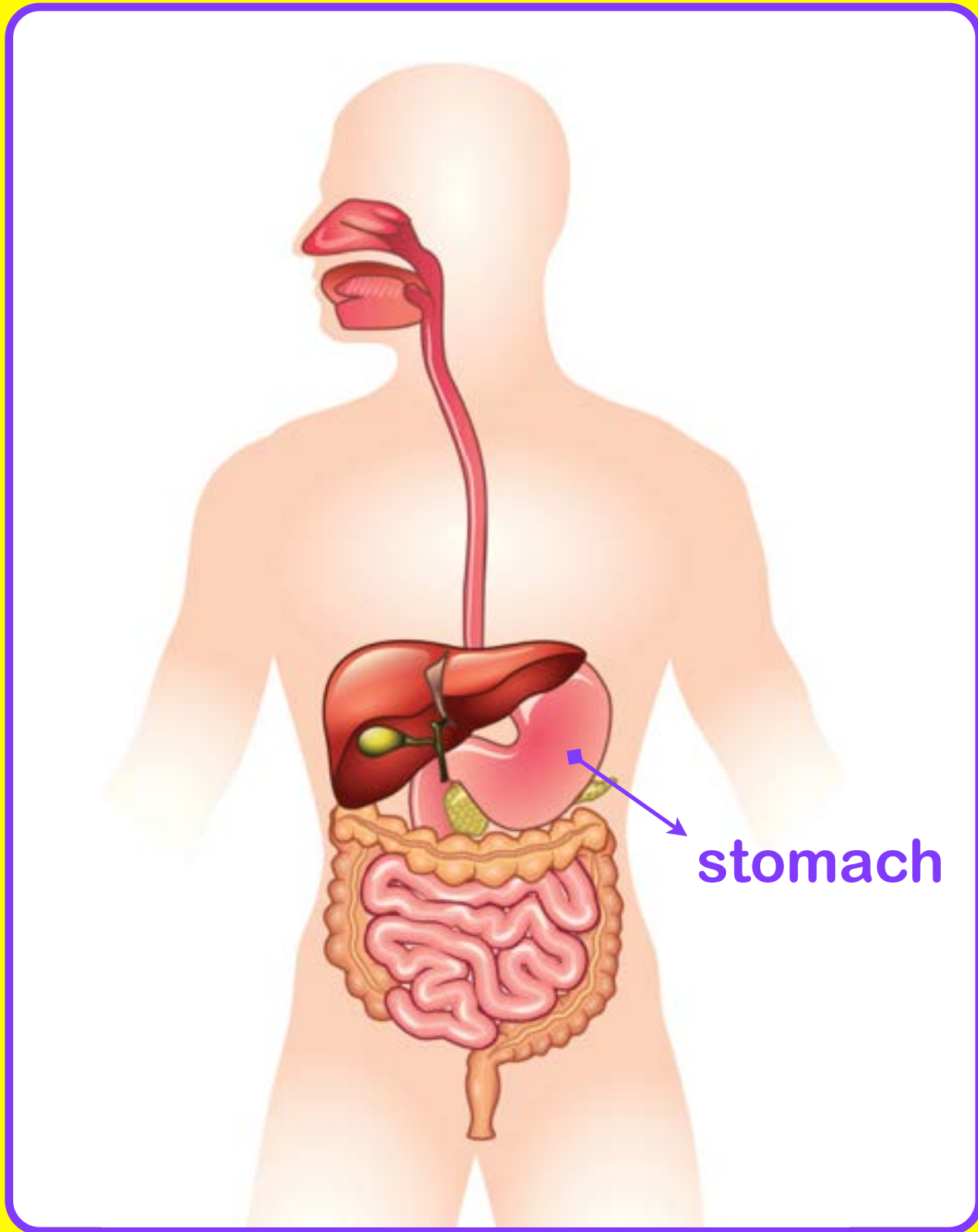


After you have swallowed your food, it travels down the oesophagus (food pipe). Food doesn't just fall down your oesophagus. It has muscles which contract in waves to push food down to your stomach.

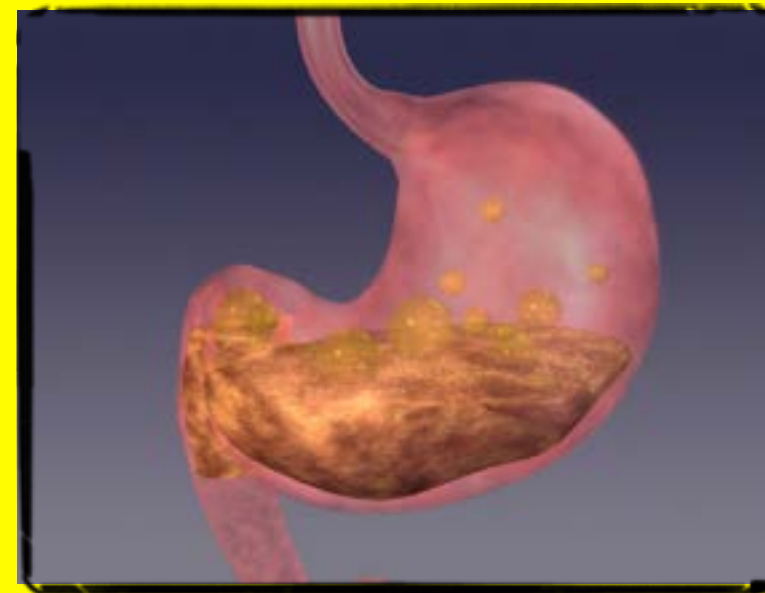


Did you know that even if you swallowed upside-down, the food would still get to your stomach because the muscles in your oesophagus would push it upwards?

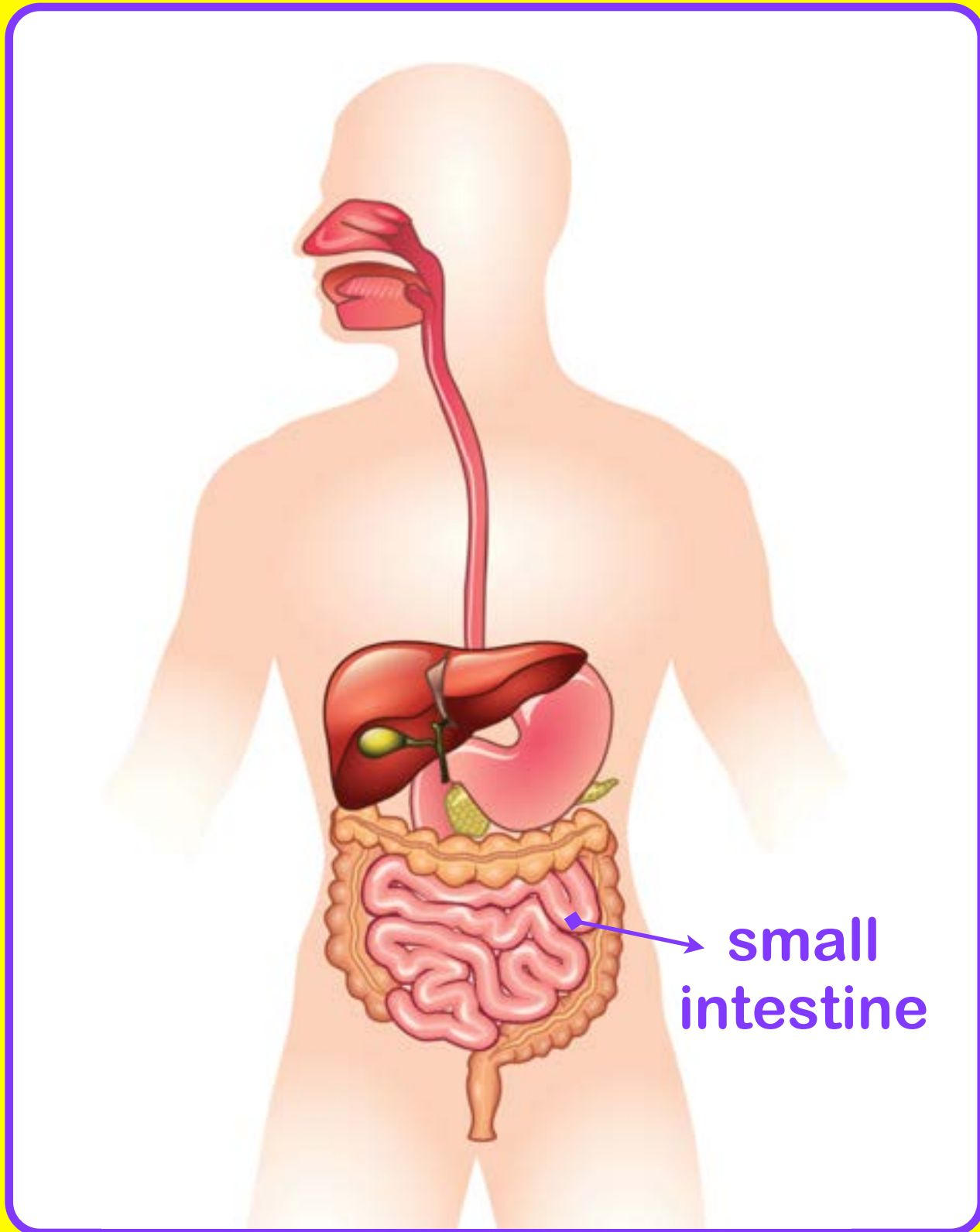




It takes about seven seconds for food to travel down your oesophagus to your stomach. The job of the stomach is to break the food down. It does this by pummelling the food with muscles in the stomach wall. It also produces acid which helps break the food down further.

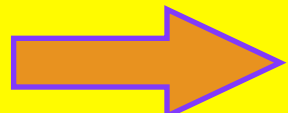
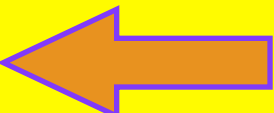


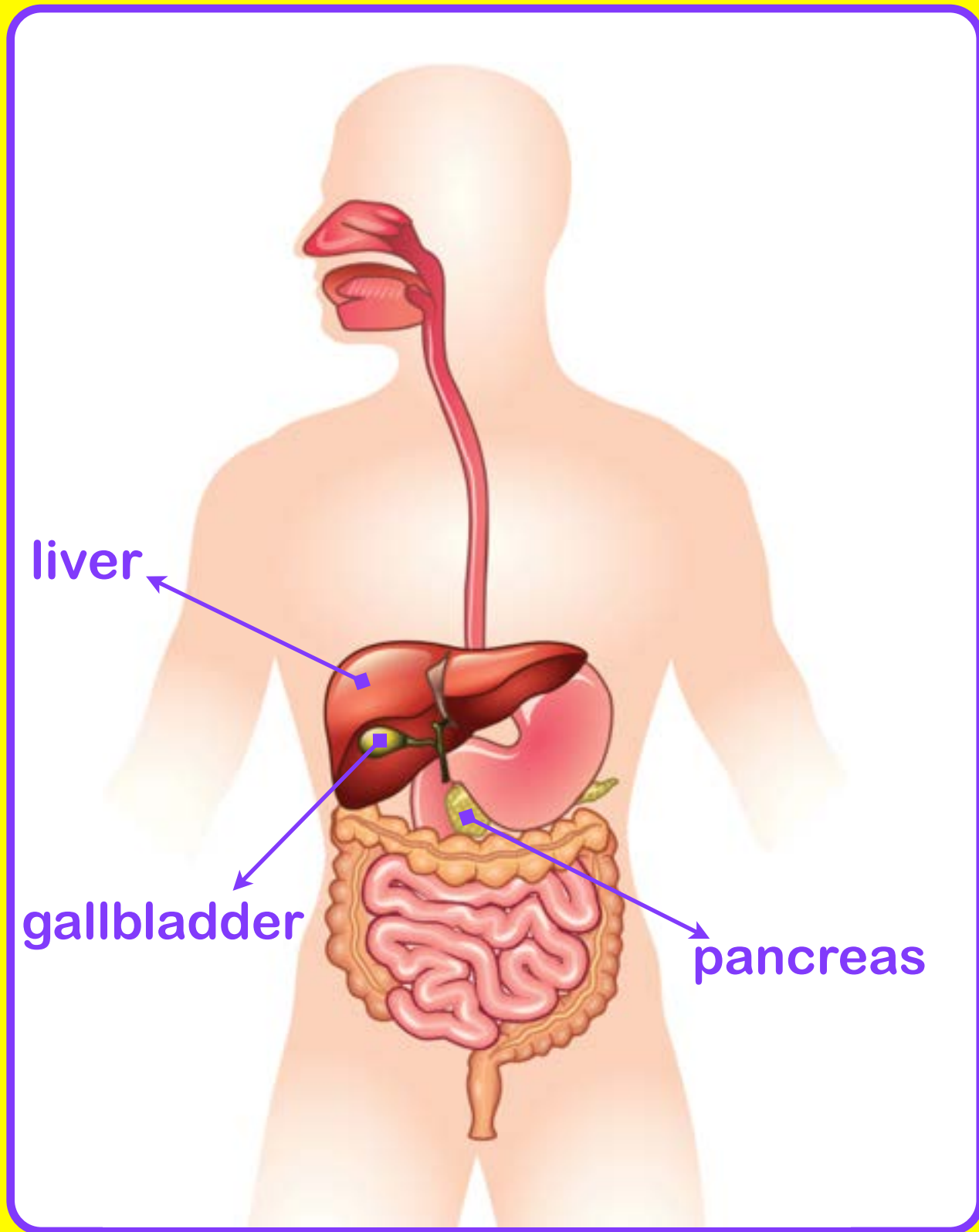
Your stomach is like a stretchy sack. Adult stomachs can hold around 1.5 litres of food.



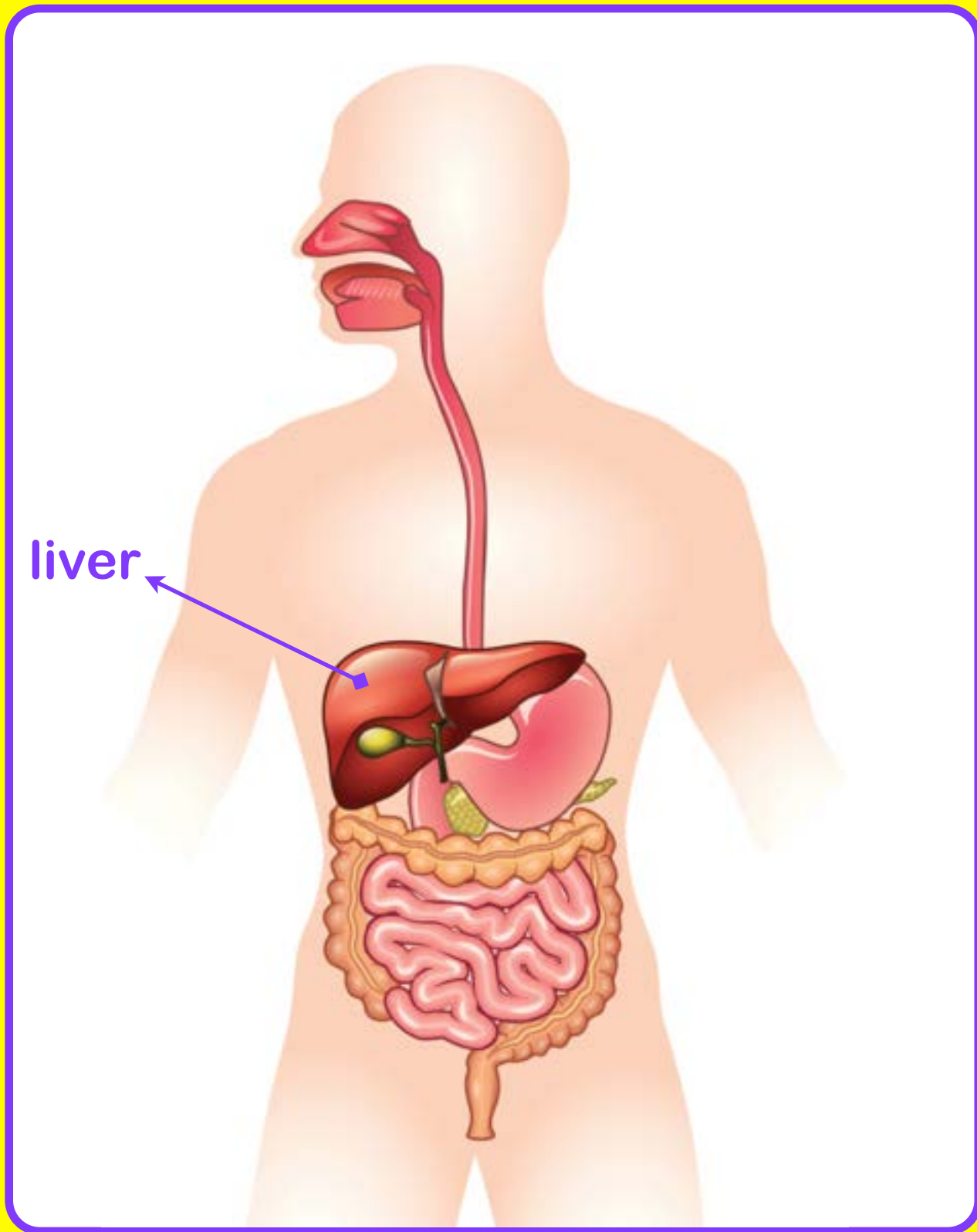
Food stays in your stomach for about four hours. By this time, it is mostly liquid. It then passes into the small intestine. It is the job of the small intestine to absorb the nutrients from your food and pass it to your blood-stream.

The small intestine is actually very long. An adult's small intestine is around 7 metres long!

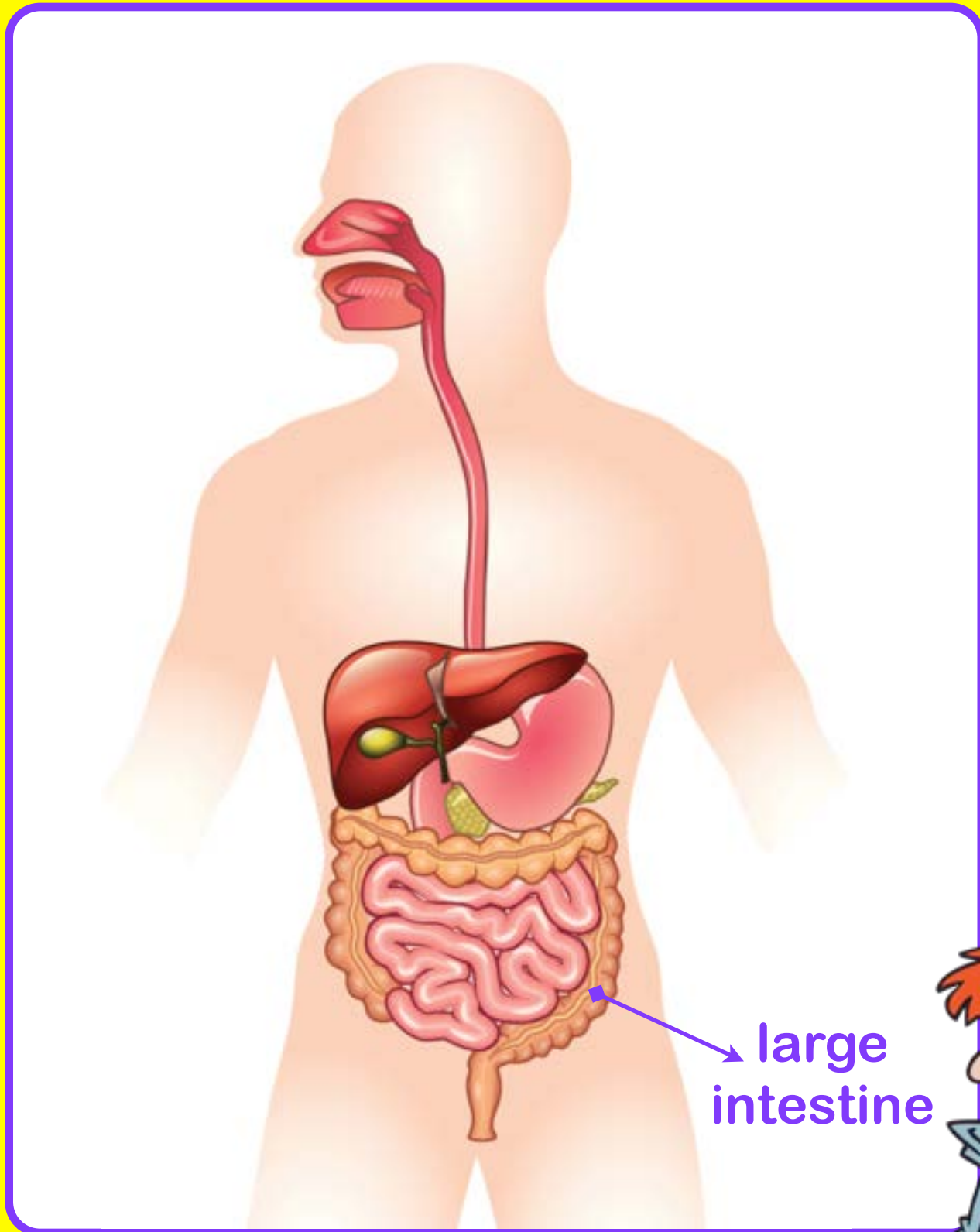




The small intestine is helped by three other organs: the liver, the gallbladder and the pancreas. The gallbladder stores bile from the liver which helps to digest fat. The pancreas produces enzymes that help digest proteins, carbohydrates and fats. Food does not pass through these organs but they help to get the nutrients from the food out of the small intestine and into the blood-stream.



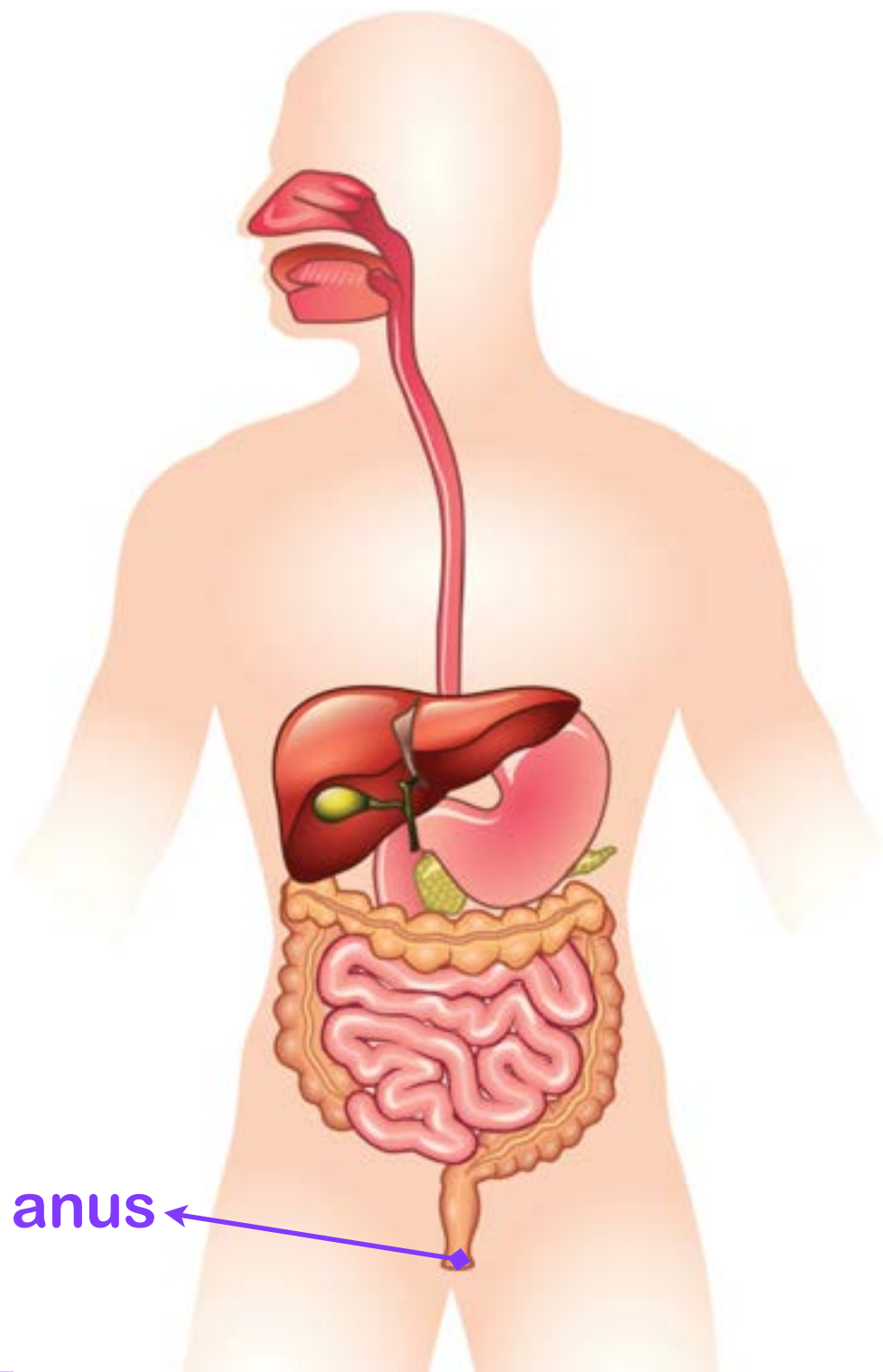
Your liver is one of the largest organs in your body and has over five hundred different functions. One of the most important is its job as a filter. Once the small intestine has absorbed nutrients into the blood stream, the liver filters the blood to make sure that toxins and any other harmful substances cannot pass through it. The liver also produces bile to break down fats.



Once the food has passed through the small intestine, it travels to the large intestine. The large intestine removes most of the water from the food to turn the food back into a solid. Here, any food that has not been digested by the small intestine is absorbed with the help of yeast and bacteria.



It is the yeast and bacteria in our large intestines that produce gases which have to be released as farts!



Any solid waste in the large intestine is passed through the anus as faeces (poo). When we go to the toilet, we get rid of all the parts of our food that our body didn't need. The rest of it has been absorbed into our blood-stream so it can be taken to the parts of the body that need it.





**Have we found out
the answers to all our
questions about the
digestive system?**

**Is there
anything else you
still want to find out
about?**