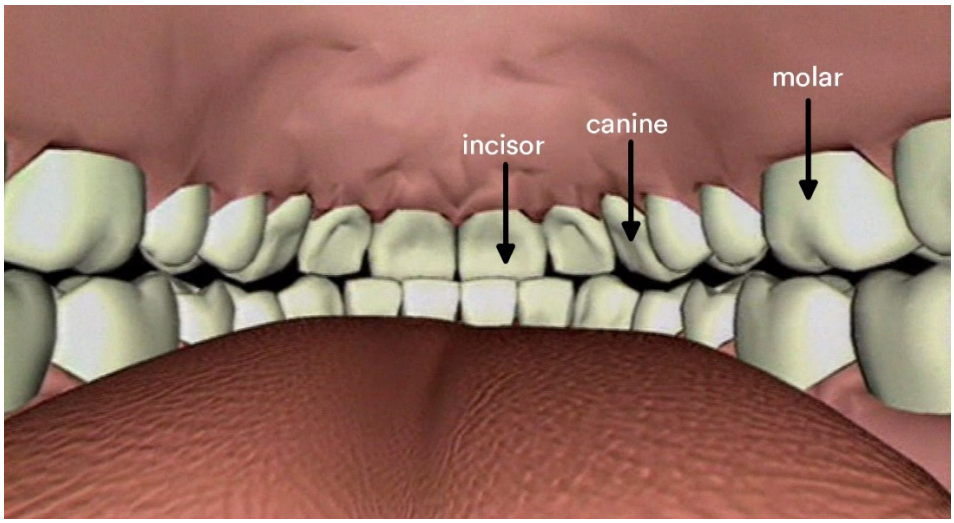
4.2.4

The mouth

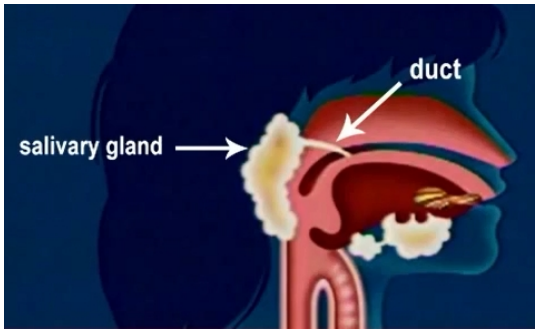
TEETH

Digestion starts in the mouth where teeth break up food into small pieces. The incisors cut, the canines tear and the molars crush food. This mechanical transformation is called mastication.



SALIVA

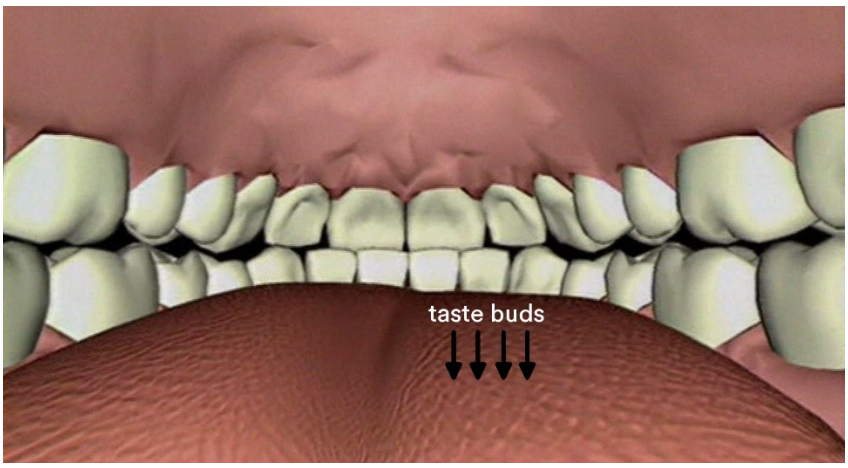
The salivary glands are also found in the mouth. They secrete saliva.



Saliva moistens food, making it easier to break up. This process is called insalivation. Once transformed, the food is referred to as a bolus of food. Saliva contains enzymes that start the chemical digestion process. Salivary amylase, for example, breaks down certain complex carbohydrates, such as starch and glycogen.

THE TONGUE

Taste buds help us determine how food tastes. Taste buds are the small bumps on the tongue.



Since taste buds are only sensitive to substances that have been dissolved, saliva plays an important role in the perception of taste. Food must be soaked with saliva for us to sense what it tastes like. The tongue is a very powerful muscle that propels the bolus of food towards the back of the mouth so it can be swallowed.

THE MOUTH IN DIGESTIX

In DIGESTIX, the teeth and salivary glands are game pieces associated with the mouth. For digestion to be effective, these pieces must be placed at the upstream of the digestive tract. This allows the teeth to break food down into several fragments, and saliva to start the chemical digestion process.

When playing DIGESTIX, one of the first things you need to realise is that the game pieces only transform certain targets. Quite intuitively, the teeth transform food into fragments.

What about the salivary glands? They can also transform food into fragments, but they are not as efficient as the teeth in doing so.

However, they are also capable of transforming food fragments into nutrients. You perhaps remember that salivary amylase breaks down certain complex carbohydrates. So to sum up, salivary glands have three targets – food, fragments, and carbohydrates.