TONGUE, SALIVARY GLANDS AND ESOPHAGUS

- Watch the Flash tutorial and complete the worksheet
- Draw quick sketches of diagrams
- Take the quiz at the end

TONGUE
The tongue is located in the _________ cavity and performs __________ digestion as it pushes food against the __________ and sides of the _________.

The __________ region of the tongue (tip) faces forwards. The __________ surface is the upper surface.

All regions of the tongue (and parts of the inner mouth and throat) are involved in __________, however, taste is sensed predominantly on the __________ surface of the tongue.

This is where the majority of ____________ (singular = __________) are found. ____________ (collections of ___________/ ____________) are located along the ____________ borders of the papillae.

The taste buds are most sensitive in ____________ life.

Dissolved ___________ particles stimulate ____________ ____________ which activate ____________/ ____________ in the ____________ ________ and cause nerve impulses to travel along ____________ in the tongue to the brain where the taste is ____________.

How many taste ____________ are there?

It currently appears as if there are _____ basic tastes - __________, __________, __________, __________ and ____________. And all tastes are detected at ______ ________ of the tongue.

It was originally thought that different tastes were sensed at different parts of the tongue but research suggests that is not true.

The tongue also has _______ and _______ _______________ so food can be perceived as both hot and sour, for example.

SALIVARY GLANDS
There are ______ of ____________ glands in the mouth region. Each has a ___________ (or tube) that carries ____________ from the gland into the oral cavity.
Release of a chemical from a duct to a region in the body is called __________________. Release _____________ of the body is called ___________________.

The 3 types of salivary glands:
(1) __________________ glands
(2) __________________ glands
(3) __________________ glands

Saliva is a watery fluid that contains the enzyme __________________ which begins _____________ by breaking down the large sugar, _____________, into smaller double sugars called _________________.

Maltose will be broken down into single ____________ molecules in the __________ _____________.

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ESOPHAGUS
The esophagus is a ____________ expandable muscular tube that carries food from the ____________ to the ____________. It has _____ major _____________ __________ with a cavity in the centre called a _________________.

The layers from the lumen out: ____________, _____________ and ____________.

The ________________ is the innermost layer. It is lined with ________________ cells and is lubricated with mucus secreted by ________________.

Below the mucosa is the _________________. Mucus glands are present here and their ducts travel through the mucosa and secrete mucus into the _____________.

The ________________ is the most distal layer to the lumen. It is composed of _____ types of ________________ tissue.

The ____________ secreted into the ____________ reduces ________________ so food can slide through the esophagus.

It also coats the ____________ surface and protects it from some ________ that might escape from the _________________.

The ________________ is composed of two muscle layers. The inner ________________ ________________ wraps around the esophagus and ________________ it when it contracts.

The outer ________________ ________________ runs the length of the
esophagus and ______________ it when it contracts.

Both of these muscle layers allow the esophagus to propel food to the stomach in a process called ________________.

The ________________ that propel food through the esophagus are called PERISTALSIS.

This requires the coordinated contraction of ______________ and ______________ muscles of the ______________ layer.

When food is swallowed, it is in the form of a ball called a ________________.

The ______________ muscles contract at position 1, narrowing the ______________ of the esophagus and pushing the ______________ down. The process is repeated at position 2 and so on.

Contraction of the ______________ muscles ______________ the esophagus and helps to move the food along.

QUIZ: FILL IN THE BLANKS

1. The taste buds are found on the lateral borders of the ________________.
2. Most taste buds are located on the _______________ surface of the tongue.
3. There are _____ (#) basic taste modalities.
4. The first structure to come in contact with dissolved food particles and begin the tasting process are ___________ fibres.
5. Starch is a long chain of _______________ molecules.
6. Amylase is an __________ that converts starch into __________.
7. There are ____ pairs of salivary glands.
8. Saliva enters the oral cavity from salivary glands through tiny tubes called __________.
9. The cavity or hole inside the esophagus is called the ________________.
10. The layer of the esophagus most proximal to the lumen is the ____________.
11. ________ glands in the submucosa secrete their chemical into the lumen of the esophagus.
12. The muscularis of the esophagus consists of both ______________ and ______________ muscles.
13. The muscular contractions that propel food down the esophagus are called ________________.
14. Contraction of the ______________ muscle layer constricts the esophagus.