

MINISTRY OF EDUCATION
SECONDARY ENGAGEMENT PROGRAMME
GRADE 8
INTEGRATED SCIENCE

Week 11

Lesson Two

Topic: Sense Organs

Sub-topic: The Tongue

Objectives: After observing pictures of the tongue, students will:

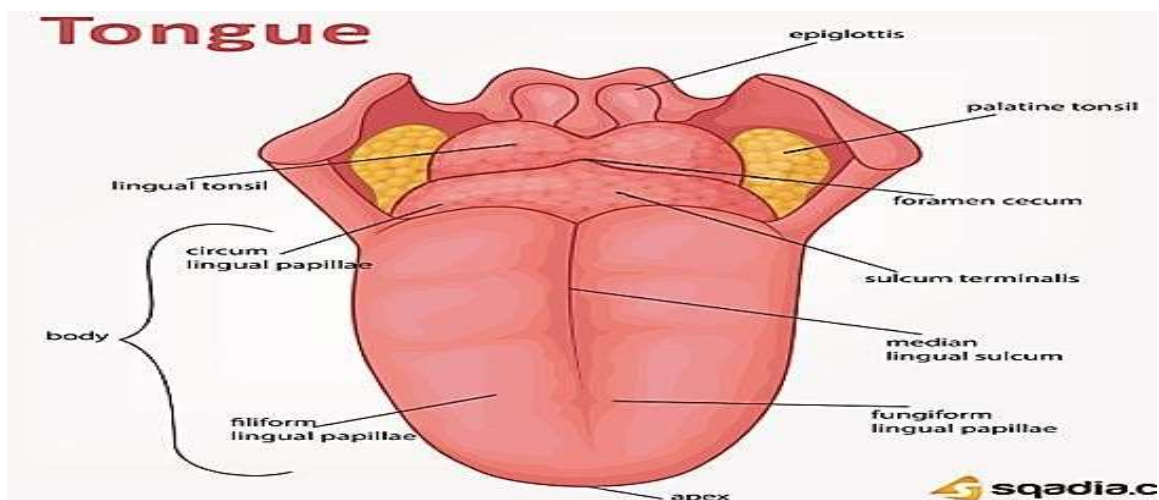
- correctly relate the structure of the tongue to its functions.
- label all the parts of the tongue correctly.
- accurately discuss how the tongue works.

Content

The Tongue

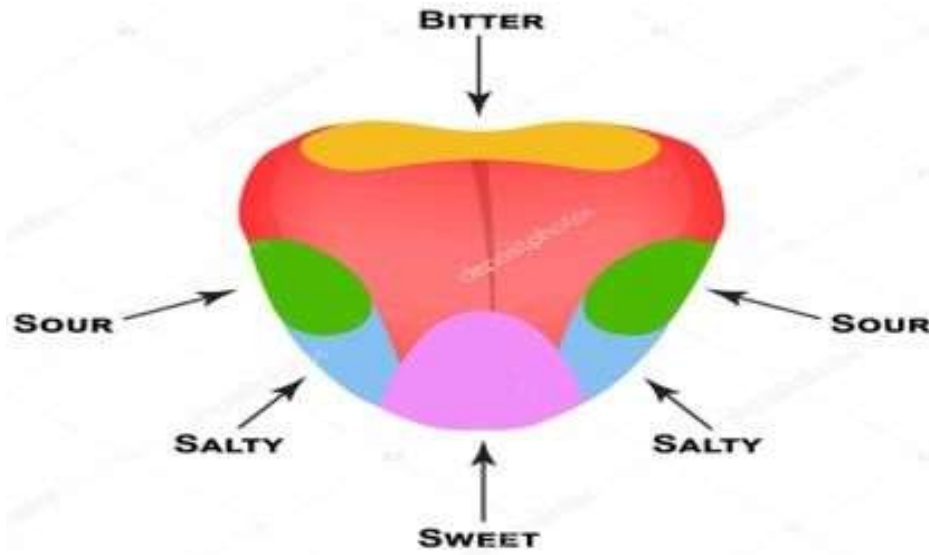
The tongue is a muscular organ in the mouth of most vertebrates that manipulates food for mastication and is used in the act of swallowing.

Structure of the Tongue



The four common tastes are: **sweet, sour, bitter, and salty**. The **tongue** has many nerves that help detect and transmit taste signals to the brain.

The areas of the tongue for tasting



How we Taste

When we eat something, the tiny hair-like parts coming out of the taste buds are stimulated by the chemicals in the food, chemicals which have been dissolved i.e. put into a solution by the saliva. The nerve threads send impulses to the brain which interprets what you are tasting.

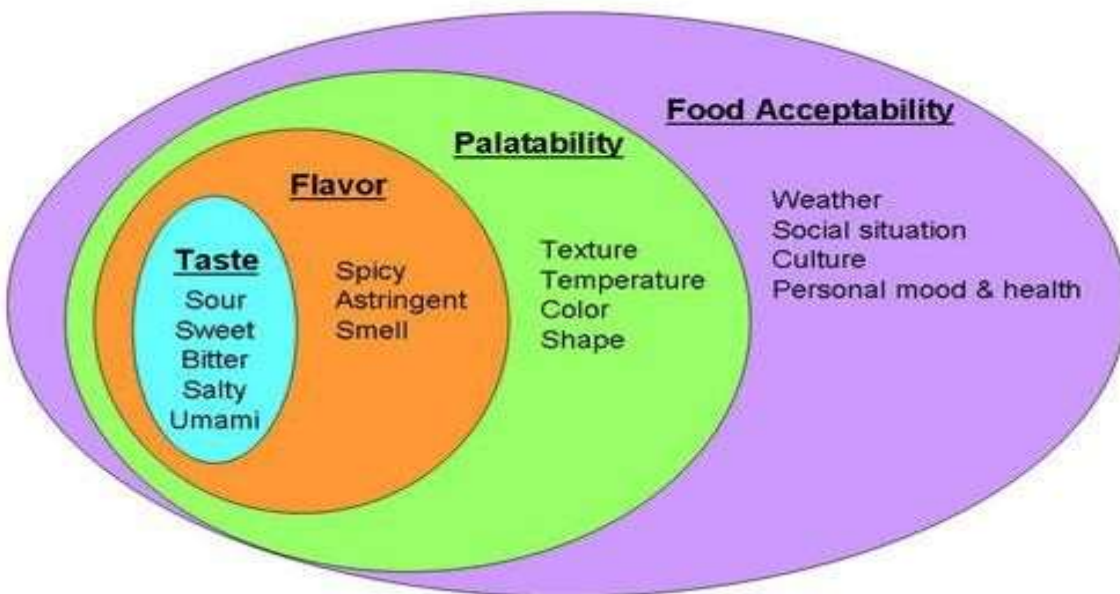


How sensitive is our tongue?

Experiments show that the tongue is sensitive to only four kinds of stimuli (tastes): - sweet, salt, sour and bitter. Each of these is detected by a different part of the tongue.

How can we explain the wide variety of taste sensations which we experience when we eat and drink? The answer is that our sense of smell also plays an important part.

Have you ever noticed that if you have a heavy cold and your nose is blocked, your sense of taste, as well as your sense of smell, is reduced?



Home Work

1. Explain briefly in your own words why you think it is difficult to taste things when you have a cold.
2. How many taste buds do we have? State their names.
3. Draw the tongue and identify where the taste buds are located on your diagram.

Reference

1. https://www.google.com/search?q=how+does+your+tongue+works+to+detect+taste&hl=en&sxsrf=ALeKk00feV81Psskc0hLbwILuYitFJKC6w:1600295343823&source=lnms&tbm=isch&sa=X&ved=2ahUKEwii-4Pc3O7rAhXlkOAKHdPwDoAQ_AUoAXoECA0QAw&biw=1600&bih=789#imgrc=5gLmTSraHEA31M&imgdii=jpExFXqaGr_eoM
2. Blackman, S., Bernard, M., Dalgety, F., & Sadoo, d.s (2000) Science in Daily Life Bk.2. Georgetown, Guyana. Ministry of Education, Guyana