

## Lesson Plan: Tongue Map!

Subject: Physiology & Sense of Taste

Age Group: 4-5<sup>th</sup> Grade

Supplies Needed:

- Cotton swabs
- Water
- Small cups
- Unsweetened baking cocoa
- Lemon juice
- Salt
- Honey
- Pens & Paper

Introduction:

- Ask the students if they know what the tongue does.
- Ask students if they knew that different parts of the tongue tasted different things.
- Explain the experiment and begin.

Instructions:

- 1) Have the students split into pairs. One will be the taster, and one will be the tester.
- 2) Put a little bit of each substance in a cup.
- 3) Mix the non-liquids with water so all substances have relatively the same consistency.
- 4) Draw a chart for recording your results.
- 5) Along the left side of the paper write each of the foods you will test in a separate row.
- 6) Across the top draw three columns for each taster.
- 7) Label each with the taster's name and "front," "back," and "side."
- 8) Ask the students to predict which place on the tongue will taste what.
- 9) Tester will dip a cotton swab into one of the liquids and dab it either on the front, back or side of the taster's tongue.
- 10) The taster tastes the liquid, then takes a sip of water to clear the tongue.
- 11) The tester then dips a new cotton swab in the same liquid and dabs it on a different part of the taster's tongue. The taster tastes the liquid again, then drinks some more water again.
- 12) Try it again on the third part of the taster's tongue.
- 13) Once all the parts of the tongue have tasted the liquid, the taster says which part of his tongue tasted the liquid the strongest.
- 14) The tester records the taster's answer on the chart.
- 15) Follow the same process for each of the different liquids. Then switch who tastes and who tests and do the whole taste test again with the new taster.

Follow-up:

Our tongues have 4 types of taste buds: sweet, sour, bitter, and salty.

These taste buds are on different parts of our tongues, which is why you taste the different liquids on different parts of your tongue.

Most people taste sweet on the tips of their tongues, bitter on the back, sour on the sides, and salty near the front and sides.

Source: <http://pbskids.org/zoom/activities/sci/tonguemap.html>