

# Microbe Magic Experiments

<http://microbemagic.ucc.ie>

## Explore your body – Taste – test your tongue!

### **What you will need**

Two people  
Cotton buds  
Water  
Small plastic cups or other container  
Sugar or honey  
Salt  
Lemon juice or vinegar  
Cocoa (important – this must be unsweetened)  
Pencil  
Blindfold  
Chart of your tongue (see below)

### **What to do:**

- Before you start, you can make predictions about where you think your tongue will taste the different substances!
- Put a little of each of the substances you are testing into a separate container. Remember to label each container with the liquid it contains!
- Mix anything that is non-liquid (like sugar, salt or cocoa) with a little water so that it is similar in consistency to the other items you are testing.
- One person is tester, the other is the taster. When you are finished, you can swap roles and compare results.
- **Taster:** Put on the blindfold
- **Tester:** Dip a cotton bud into one of the liquids (make sure it is really soaked in the liquid but not dripping) and dab it onto the tasters tongue at the front.
- **Taster:** Take a mouthful of water and swirl it around your mouth to clear your tongue.
- **Tester:** Dab the same cotton bud onto the back of the tasters tongue.
- **Taster:** Take a mouthful of water and swirl it around your mouth to clear your tongue.
- **Tester:** Dab the same cotton bud onto the sides of the tasters tongue.
- Ask the taster if they can identify where the taste was strongest and what it was.
- Write that substance name on the chart of the tongue where the taster has indicated (e.g. lemon juice tasted sour on the sides of the tongue).
- **Taster:** Take a mouthful of water and swirl it around your mouth to clear your tongue of the old taste before you experience a new taste.
- **Tester:** Repeat the experiment with all of the different liquids.
- When all the liquids have been examined and the answers entered onto the chart, the tester and taster can swap and repeat the experiment using a new chart. When completed, you can compare your answers to see if you taste the same substances in the same place!

### **What's happening?**

Your tongue contains thousands of taste buds that can identify the four basic tastes – sweet, sour, salty and bitter. These are based in different areas of your tongue, the

very tip of your tongue identifies sweet tastes, the front of your tongue identifies more salty tastes, the sides of your tongue identifies sour tastes while the very back of your tongue identifies bitter tastes. As you get older, your sense of taste (the weakest of all of the senses) will become less which is why older people sometimes prefer more spicy food!



