



<p><b>Example topic:</b> Senses</p>	<p>Primary 6/7 Age 9-11</p>	<p><b>Activity title:</b> Terrific Tasters</p>
<p><b>Science skill focus</b> Observation</p>	<p><b>Curriculum link: Interdependence</b> How they and others interact in the world (I1) There are different organs in the human body which carry out specific functions</p> 	
<p><b>Progression Focus</b></p> <ul style="list-style-type: none"> <li>• Can children use their sense of taste to observe closely?</li> <li>• Can children collect and compare evidence about their sense of taste?</li> </ul>		
<p><b>Activity</b> <i>Today we are biologists.</i> Provide 5 different unknown flavours of food (e.g. yoghurt, crisps, drink). Ask pupils to taste each flavour and try to identify what the flavour is – each pupil to note results but not share with peers. When all have sampled, tell children the flavours and see how many they have got correct. Based on this result, can they predict whether they are ‘non-tasters’, ‘tasters’ or ‘supertasters’? Use this test to collect evidence about tongue sensitivity: <a href="https://www.bbc.com/teach/terrific-scientific/KS2/zjf6vk7">https://www.bbc.com/teach/terrific-scientific/KS2/zjf6vk7</a> Ensure clean hands. Pupil to be tested sticks tongue out, paint front third of tongue with blue food dye, set card with hole punched on top of this part of tongue and count fungiform papillae (pink bumps). Use table to interpret results (see below or on BBC teacher notes). Discuss their findings and observations.</p> <p><b>Adapting the teaching</b> <b>Support:</b> How could you better see the fungiform papillae (pink bumps)? Torch/magnifier <b>Extension:</b> How could you make results more accurate? More than one person counting the pink bumps – take an average. <b>Other ideas:</b> Try initial taste test on different food/drink. Does taste work the same for drinks and food?</p> <p><b>Questions to support discussion</b></p> <ul style="list-style-type: none"> <li>• What factors do you think affect your sense of taste?</li> <li>• How many of the food/drinks were you able to identify?</li> <li>• What do you predict you will find when we count your</li> <li>• What does the evidence tell you about your sense of taste?</li> <li>• How does this compare to others?</li> <li>• Does our class follow the national distribution for each category?</li> </ul> 		
<p><b>Pupil learning indicators</b> <b>Not fully achieved:</b> Uses assumptions rather than evidence e.g. <i>it looks red, so it's going to be a strawberry one, I think I'm a super-taster so I need to count more than 11 bumps on my tongue.</i> <b>Achieved:</b> Pupils are careful to focus on their sense of taste when testing the food. They base their observations on evidence and compare their results with others to discuss their sense of taste. <b>Exceeded:</b> Results are evaluated for accuracy. Other factors are considered, e.g. interaction with sense of smell.</p>		

<b>Number of Fungiform Papillae (Pink Bumps)</b>	<b>Type of Taster</b>	<b>How common in pop.</b>
0 - 5	Non-Taster	One in four (25%)
6 - 10	Taster	One in two (50%)
11 +	Supertaster	One in four (25%)

Super tasters experience bitter tastes more strongly than other people; this is because they have a higher number of taste receptors within fungiform papillae, the big pink bumps on your tongue which contain your taste buds, enabling you to taste sweet, sour, salty, bitter and umami. By counting the number of **fungiform papillae**, you will be able to determine whether you are a super taster, taster or non taster.

#### **Health & Safety Hazards & Control Measures:**

Ensure the person preparing and handing out the holed card has clean hands, uses new card and has clean scissors and hole-punch. Prepared card should be kept in a new freezer bag or similar. Ensure all pupils wash their hands before and after taking part in the activity. Only allow children to dip their cotton bud once into the food dye, if more dye is needed get a fresh cotton bud. Have a receptacle on each table for waste. Have paper towels on hand to clean up any mess or spillages. Have on hand anti-bacterial surface cleaner or wipes.

For further details about this activity, see:

<https://www.bbc.com/teach/terrific-scientific/KS2/zjf6vk7>