

Introduction to sense: Taste

In both humans and animals, one of the functions of the **tongue** is to **taste food**.

There are **taste receptor cells** located on the tongue, grouped in small clumps called **taste buds**. These special cells help us to taste food by **telling the brain** if foods are sweet, sour, bitter, salty, savoury or a combination of these.

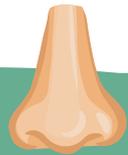
If you look in a mirror and stick out your tongue, you will be able to see small bumps - these are your **taste buds**.



A human can have up to **10,000 taste buds!**

Did you know...

In order to taste something, you need your **nose** too! Your nose detects the smells that are released when you eat and together with your tongue, **signals** are **sent** to your **brain** to tell you about what you are eating.



Classifying animals according to the food they eat

We sometimes classify animals based on the **type of food** they eat. This helps us to feed our pets and other animals the right food they need to stay **healthy**.

Humans and animals eat lots of different foods but we generally split them into **3 different groups**, depending on the **type of foods** they eat:

1. Carnivores, like cats, can only eat meat.



2. Herbivores, like cows and sheep, can only eat plants.



3. Omnivores, like pigs, can eat both meat and plants.





Cows are **herbivores** and have around 25,000 taste buds.

They have so many taste buds because they need to know which plants are **safe for them to eat**. Their taste buds help them to do this.

Omnivores, like **pigs**, have **fewer** taste buds (15,000), while **carnivores**, like **cats**, have **even fewer** taste buds (just 480).

Checkpoint! What have you learnt so far?

How do we use our **tongues** to **taste**? What **other sense** do we need in order to taste?

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What do the **taste buds** on your tongue look like? Use a mirror to help you!



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Which **group** do **humans** belong in? Are we carnivores, herbivores or omnivores?

Carnivores

Herbivores

Omnivores

Challenge: Taste Tournament!

You will need: 5 plastic containers, foil, 5 different types of food (sweet, sour, salty, bitter, savoury)

1. Have a look in your kitchen and choose some **food** from **each of the categories** (maybe get a grown-up to help you!).
2. Place each piece of food in a **separate plastic container** and **cover** with foil.
3. Place the containers on a table and **mix** them up so you don't know what's in each one.
4. Find a family member (or someone else who can help you) to play with: Close your eyes and **take turns** to eat a piece of food from a container, if you **guess** the type of food correctly then you keep the container.
5. The person with the **most containers** at the end **wins!**



Optional activity: Keep a food diary!



Now you know how your taste buds work, can you keep a **food diary** to see what **types** of food you are eating?

You could try to eat **something new** that you **haven't eaten before** each day, now there is a real challenge!

Questions to think about

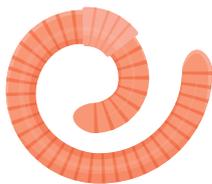
Our **teeth** help us to **chew food** so we can taste it, can you find out about **different animals teeth**? Do they **differ** between carnivores, herbivores and omnivores?

What **kind of teeth** do **humans** have?

If we need our nose to taste, **what happens** if we **cannot smell**? Try eating something and holding your nose, does it **taste different** to how it does normally?

Did you know?

Giraffes have very **long and sensitive tongues** so they can reach into prickly bushes to collect food. Their tongues are also **black** to help them **avoid sunburn** while feeding in hot sunshine.



Earthworms have taste receptors all over their bodies so they can taste **through their skin!**



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