**Sensory characteristics**

* Ingredients are selected for their nutrition, functional and sensory characteristics, as well as provenance and seasonality.

**Sensory evaluation and tests**

Sensory evaluation analyses and measures human responses to food and drink, e.g. appearance, touch, odour, texture, temperature and taste. In order to obtain reliable results, sensory evaluation tests should be set up in a controlled way to ensure fair testing, e.g. no distracting colours, noise or smells; same size portions; coded samples, and water to drink.

**Preference tests** - these types of tests supply information about people's likes and dislikes of a food. They include hedonic, paired comparison and scoring tests.

**Discrimination tests** - these types of tests aim to evaluate specific attributes, i.e. characteristics of a food (such as crunchiness). They include triangle, duo trio, ranking and paired comparison tests.

**Using our senses**

A range of senses are used when eating food:

* sight;
* smell;
* hearing;
* taste;
* touch.

A combination of these senses helps to evaluate a food.

**Other factors**

Other factors also experience the way we feel about food. These include:

* food previously eaten;
* hunger and satiety;
* mood;
* where you eat, e.g. home, canteen, picnic;
* beliefs and values, e.g. religion, culture and tradition;
* social aspects, e.g. special occasions, events.

**Key terms**

**Discrimination tests**: Aim to evaluate specific attributes, such as crunchiness.

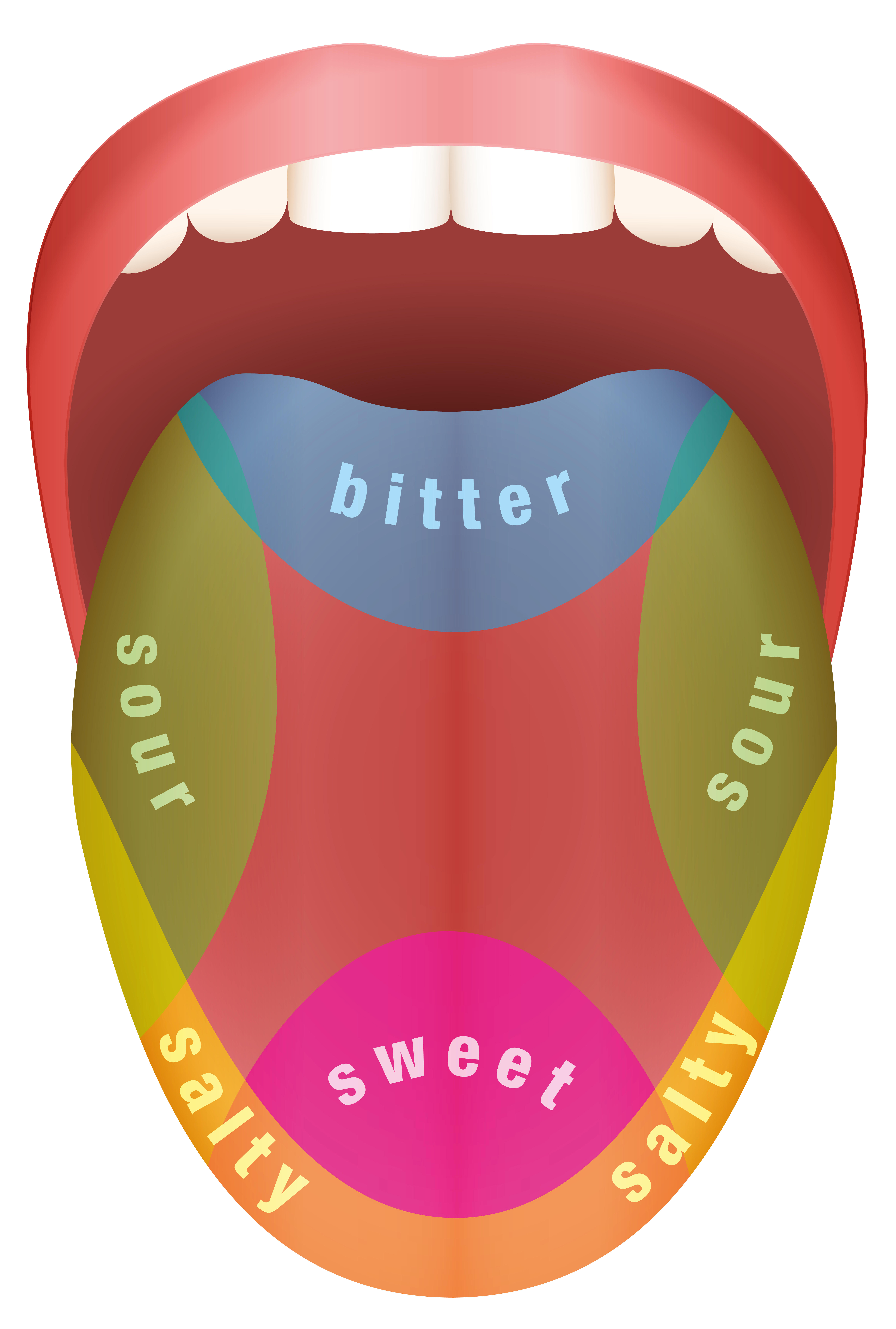
**Preference tests**: Supply information about people’s likes and dislikes of food.

**Sensory attributes**: Words used to describe the appearance, odour, taste and texture of a food product

**Sensory evaluation**: A scientific discipline that analyses and measures human responses to the composition of food and drink.

**The olfactory system**: The sensory system used for olfaction, or the sense of smell.

**Umami**: Savoury taste, often known as the fifth taste.



**Umami**Umami is a savoury taste, often known as the fifth taste. It is a subtle taste and blends well with other tastes. Umami has its own distinct savoury taste, often associated with ripe tomatoes and cheese.

**Tasks**

1. Work through the sensory evaluation worksheets on *Food – a fact of life* <https://bit.ly/2WpSTov>
2. Make a list of the sight, smell, taste, touch and sound of the different food had for lunch yesterday. Describe how these different attributes influenced your like/dislike of the different food.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Tasting vocabulary (sensory attributes)** | | |
| Sight | Bubbling | Flaky | Opaque |
| Caramelised | Firm | Smooth |
| Clear | Heavy | Solid |
| Coarse | Icy | Steaming |
| Crumbly | Juicy | Sticky |
| Dry | Moist | Thick |
| Smell | Acidic | Fresh | Spicy |
| Aromatic | Meaty | Strong |
| Bland | Mild | Sweet |
| Citrus | Pungent | Tart |
| Earthy | Savoury | Weak |
| Fragrant | Smoky | Zesty |
| Sound | Brittle | Crisp | Pop |
| Crackle | Crunch | Sizzle |
| Taste | Bitter | Rich | Strong |
| Bland | Salty | Sweet |
| Floury | Savoury | Tangy |
| Hot | Smoky | Tart |
| Mild | Sour | Umami |
| Piquant | Spicy | Zesty |
| Touch | Brittle | Dry | Short |
| Bubbly | Gooey | Soft |
| Chewy | Granular | Solid |
| Close | Greasy | Tacky |
| Cloying | Moist | Tender |
| Coarse | Open | Waxy |

**Taste receptors**

Sensitivity to all tastes is distributed across the whole tongue (and indeed other regions of the mouth where there are taste buds), but some areas are more responsive to certain tastes than others.

**Taste receptors**

**The olfactory system**

The olfactory system is the sensory system used for olfaction, or the sense of smell.

**Hearing/sound**

The sounds of food being prepared, cooked, served and eaten all help to influence our preferences. The sound of eating food can alter our perception of how fresh a food is (e.g. crunchy carrots).

**Touch**

Texture can be assessed through touch. When food is placed in the mouth, the surface of the tongue and other sensitive skin reacts to the feel of the surface of the food. The sensation is also known as mouth-feel.

**Smell and taste**

Smell (odour) and taste work together to produce flavour. This is the reason why people with a blocked nose find it difficult to determine the flavours of foods.

Our tongues are covered with taste buds, which are designed to sense chemicals in the mouth.

**Smell (odour)**

The nose detects volatile aromas released from food. An odour may be described by association with a particular food, e.g. herby, cheesy, fishy. The intensity can also be recorded.

**Taste**

The tongue can detect five basic tastes:

* bitter;
* salt;
* sour;
* sweet;
* umami.

**Sight**

The size, shape, colour, temperature and surface texture all play an important part in helping to determine your first reaction to a food. Often if a food does not look appetising, then you will not eat it.