The senses and food
Learning objectives

• To appreciate the different senses that are involved in eating food.

• To name the senses that are used in tasting food and drink.

• To recognize the 5 basic tastes.

• To use appropriate sensory vocabulary when describing food.
Which senses do we use?

A range of senses are used when eating food.

These senses are:

• sight;
• smell;
• hearing;
• taste;
• touch.

A combination of these senses enables you to evaluate a food.
Appearance

The size, shape, color, 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 appetizing, then you will not eat it.

Appearance is therefore vitally important if you want your food to be eaten and enjoyed.
# Appearance

Useful words to describe appearance:

<table>
<thead>
<tr>
<th>stringy</th>
<th>firm</th>
<th>dry</th>
</tr>
</thead>
<tbody>
<tr>
<td>heavy</td>
<td>flaky</td>
<td>crumbly</td>
</tr>
<tr>
<td>flat</td>
<td>crisp</td>
<td>lumpy</td>
</tr>
<tr>
<td>fizzy</td>
<td>fluffy</td>
<td>smooth</td>
</tr>
<tr>
<td>crystalline</td>
<td>hard</td>
<td>mushy</td>
</tr>
<tr>
<td>sticky</td>
<td>fragile</td>
<td>dull</td>
</tr>
</tbody>
</table>
Appearance

What words would you use to describe these foods?
Odor

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

Odor and taste work together to produce flavor. This is the reason why people with a blocked nose find it difficult to determine the flavors of foods.
Smell and Taste Work Together
### Odor

Useful words to describe odor:

<table>
<thead>
<tr>
<th>aromatic</th>
<th>pungent</th>
<th>spicy</th>
</tr>
</thead>
<tbody>
<tr>
<td>floral</td>
<td>bland</td>
<td>tainted</td>
</tr>
<tr>
<td>perfumed</td>
<td>rancid</td>
<td>savory</td>
</tr>
<tr>
<td>rotten</td>
<td>tart</td>
<td>citrus</td>
</tr>
<tr>
<td>acrid</td>
<td>strong</td>
<td>mild</td>
</tr>
<tr>
<td>musty</td>
<td>weak</td>
<td>scented</td>
</tr>
<tr>
<td>fragrant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Odor

What words would you use to describe these foods?
Sound

The sounds of food being prepared, cooked, served and eaten all help to influence our preferences.
Sound

What words would you use to describe these foods?
Taste

The tongue can detect five basic tastes:

- bitter;
- salt;
- sour;
- sweet;
- umami.

Taste may be described by association with a particular food, e.g. meaty, minty or fruity.

The intensity can also be recorded, e.g. mild or strong Cheddar.
What is umami?

Umami is a savory taste, often known as the fifth taste. It is a subtle taste and blends well with other tastes.

It was discovered by Dr Kikumae Ikeda, from Tokyo Imperial University, Japan, in 1908. He undertook research into Dashi, a traditional Japanese stock made from kombu (kelp).

Umami has its own distinct savory taste, often associated with ripe tomatoes and cheese.
## Taste

**Useful words to describe taste:**

<table>
<thead>
<tr>
<th>sweet</th>
<th>cool</th>
<th>bitter</th>
<th>umami</th>
</tr>
</thead>
<tbody>
<tr>
<td>zesty</td>
<td>warm</td>
<td>hot</td>
<td>tangy</td>
</tr>
<tr>
<td>sour</td>
<td>sharp</td>
<td>rich</td>
<td>salty</td>
</tr>
<tr>
<td>bland</td>
<td>rancid</td>
<td>tart</td>
<td>acidic</td>
</tr>
<tr>
<td>strong</td>
<td>citrus</td>
<td>mild</td>
<td>savory</td>
</tr>
<tr>
<td>spicy</td>
<td>tainted</td>
<td>weak</td>
<td></td>
</tr>
</tbody>
</table>
Taste

What words would you use to describe these foods?
Texture

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.

Different sensations are felt as the food is chewed. The resistance to chewing also affects texture, e.g. chewiness, springiness.

The viscosity is also a factor, e.g. runny, thick.

The mouth also detects temperature, which plays an important stimulus, e.g. cold ice cream, warm bread, hot soup.
# Texture

Useful words to describe texture:

- brittle
- clammy
- sandy
- open
- crisp
- lumpy
- sticky
- rubbery
- bubbly
- tacky
- soft
- fluffy
- smooth
- short
- grainy
- tender
- firm
- dry
- hard
- gritty
- fibrous
- waxy
- flaky
- crumbly
- mushy
Texture

What words would you use to describe these foods?
Other factors

Although the senses play an important role in determining our food preferences, and helping us to evaluate food, other factors are also involved.

These include:

• previous experiences with food;
• 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.
Using your senses

The senses help to:

• develop personal food preferences (likes/dislikes);
• evaluate foods, either through preference or discrimination tests.
Summary

• There are 5 senses used when tasting food and drink, e.g. sight, hearing, smell, taste and touch.

• There are 5 basic tastes – salt, sugar, bitter, sour and umami.

• A range of sensory vocabulary should be used when describing food.
For further information, go to:

www.foodafactoflife.org.uk

Computer Lab:

1. Senses and Food Tutorial (do not print off results)

2. Explore the various evaluation forms and food evaluation spreadsheet documents
   • See “Food Evaluation” word document for further explanation