Unit 6: Methods for food processing

Lesson 16

Methods for processing food

Preparing, combining and cooking.

Look at the following images.

The meat has been prepared by slicing the leg of beef with a butcher’s blade.

The mayonnaise has been made by combing eggs with oil and vinegar and beating them together. The beetroot has been cooked before being bottled.

| meat | mayonnaise | beetroot |

Three food products:

Preparing, combining and cooking are three ways of processing food.

- Preparing involves processes such as shelling, peeling, slicing or chopping.
- Combining is the mixing together of two or more ingredients.
- Cooking involves heat. It includes methods such as boiling, baking, steaming, roasting and frying.
**Activity 16**

**Identify some methods of food processing**

Research and identify the difference between boiling, baking, steaming, roasting, toasting and frying.

Design a poster to present your information.

**Lesson 17**

**Ways of preserving food.**

Food does not last long before going rotten. It goes stale, or it spoils as moulds and bacteria start to grow on it and break it down. Treating food to make it last longer is called preserving. Food is often processed to preserve it, or make it last longer. Heating (cooking) kills bacteria. Freezing, pickling, drying or salting (adding lots of salt) stops bacteria from growing on the food. Pickling is the process of preserving food in salt water or vinegar. (Salt water is called brine)

<table>
<thead>
<tr>
<th>pickling</th>
<th>Salting (biltong)</th>
<th>Freezing (peas)</th>
<th>Drying (dried fruit)</th>
</tr>
</thead>
</table>

**Ways of preserving food.**

**Hot and spicy atchar**

Atchar is a South African Indian relish that is made with green mangoes and chillies.

The name comes from the Hindi word for pickle - achar.
Activity 17
Identify ways of preserving food

1. Copy and complete the table below: Examples of food preserving

<table>
<thead>
<tr>
<th>Processed food</th>
<th>Main method of preserving</th>
<th>Extra examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gherkins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biltong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dried peaches</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frozen peas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Read about atchar.
   2.1 State what the word atchar means.
   2.2 List what South African atchar is made from.

Lesson 18
Fermenting

Fermenting is a method of food processing that uses yeast or bacteria. These bacteria are the good guys, not the bad ones! The yeasts or bacteria multiply as they feed on the food and change the starches or sugars into acids or alcohol. Fermenting improves the nutritional value of the food or beverage. The yeasts or bacteria themselves are nutritious and they partly digest the food. Yoghurt, amasi, ginger beer and sorghum beer are all made using the fermentation process.

<table>
<thead>
<tr>
<th>yoghurt</th>
<th>amasi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ginger beer</td>
<td>Sorghum beer</td>
</tr>
</tbody>
</table>

Four drinks made using the fermenting process.
Activity 18
Research food processing and process a food
Individual / pair work.

Design brief
Find out more about how to process foods. Process your own food product.

Materials
You will need:
   Raw food (of your choice)
   Processing materials (depending on your method of processing)

Part 1: Plan and design your food processing
Select one of the methods for processing foods below. Research how to process foods using this method.

- combining
- freezing
- fermenting
- salting
- cooking
- pickling
- drying

Part 2: Plan and design your food processing method

Specifications: Choose a raw food to process, such as fresh fruit, nuts, vegetables or meat. Research and write down the following:
   Type of food to process
   Materials needed in process it.
   Steps involved in processing the food at home.

Constraints: Choose a practical processing method.
Make sure you are able to get all the ingredients and processing equipment you will need.
Lesson 19

Activity 19

Part 3: Process your food
Step 1: Process your food according to the steps you wrote down under specifications.
Step 2: Draw a flow diagram to show how you processed your food.
Step 3: Display your processed food in class. Have fun tasting!

Part 4: Evaluate your processed food
Copy and complete the table below to evaluate your food.

<table>
<thead>
<tr>
<th>Your processed food.....</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Is edible.</td>
</tr>
<tr>
<td>• Tastes good, is original, or was an adventurous experiment.</td>
</tr>
<tr>
<td>• Is attractively presented or packaged.</td>
</tr>
<tr>
<td>• Comes with flow diagram to show how you made it.</td>
</tr>
<tr>
<td>• Comes with some interesting background information.</td>
</tr>
</tbody>
</table>