

KNOWLEDGE ORGANISER

Food provenance is knowing: Where food is grown/caught/reared; how it is produced; how it is transported.

A. Primary Production is changing raw food materials into food that can be eaten immediately or be processed further into other food products.

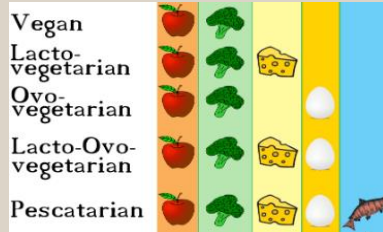
B. Secondary Production is changing a primary product into other types of food.

Fairtrade shows that the farmers of raw ingredients have been guaranteed a good price

Seasonal Foods – Foods available at certain times of the year. Local produce = seasonal produce.

Benefits: cheaper, fresher, lower food miles, higher nutritional value

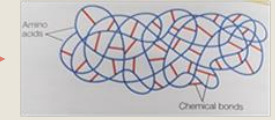
- We can alter recipes like lasagne to make them suitable for vegetarians by:
- Removing the minced beef and replacing with Quorn mince for protein.
- Replacing lasagne sheets with durum wheat or egg free pasta sheets
- Removing beef stock and replacing with vegetable stock
- Stock is used for flavour.



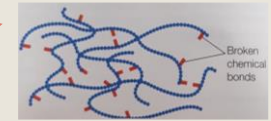
- Raising agents help to make the product rise. The 3 types are
- Biological – such as yeast
- Chemical – such as baking powder
- Mechanical aeration – trapping air with a whisk.
- The 4th is a technical process called lamination. This is used to make puff pastry.
- Lamination acts as a raising procedure where the fat and dough is folded and rolled. The moisture incorporated in the fat and in the dough also will vaporise during baking and gives it the lift (or raising).

- Gluten is the protein found in what, rye and barley.
- A gluten free diet is a diet that avoids these grains and other varieties of these grains.
- Lactose free is a diet free of the sugar found in dairy known as lactose.
- A vegan is someone who does not eat or use any animal products.

Protein are molecules consist of large chains of amino acids bundled up and held together by chemical bonds.



The chemical bonds in protein can be broken by: Heating food, mechanical agitation, adding acids and trapping air. When the chemical bonds break, they denature.



The protein coagulates [sets] when the bonds re-attach to form a new structure and solidify. This is called coagulation.



There are 3 methods of cooking food:

1. Cooking with water [boiling, steaming, poaching and simmering]
2. Cooking with oil [frying, stir-frying and roasting]
3. Cooking with dry heat [baking and grilling]

In terms of cooking methods, baking is healthier than roasting. Cooking with fat is the least healthy as fat is calorie dense.

Vitamins A, D, E and K are fat soluble vitamins. Vitamins B and C are water soluble vitamins. Some vitamins are lost during cooking due to heat. Water soluble vitamins are lost during boiling.

Key Questions:

1. How does shallow frying affect the nutrients in food? Increase in fat content and small loss of water-soluble vitamins from the heat
2. How does baking affect the sensory qualities of food? Crispy texture, golden brown colour to surface, improved flavour
3. Name two cooking methods which use water. Blanching and steaming.
4. How does blanching affect the nutrients in food? Loss of vitamins C, some B group vitamins, iron and calcium into the cooking water
5. What are the advantages of blanching food? Retains the vegetables crisp texture and colour.

Food is cooked to:

- Destroy harmful bacteria
- Improve sensory qualities
- Last longer
- Have more varied diet

There are 3 ways heat is transferred to cook food:

1. Conduction: heat passing from solid to solid eg. Frying an egg
2. Convection: heat travelling in a current through water or air eg. Boiling or baking in an oven
3. Radiation: heat travelling in direct rays eg. Grill/toaster/BBQ/microwave

Key terms:

Dextrinization occurs when starchy foods are exposed to dry heat like toasting or baking. It is when starch molecules break down and gives food a: Browner colour, crispier texture and different taste.

Caramelisation is the process when sugar molecules break down and change flavour and colour at a high temperature. The stages are runny and sweet till a smooth caramel, followed by hard like candy.

Gelatinisation is when liquids are thickened through heating with starches. Starches are the main food source of plants. They are made up of molecules of glucose.

A sensory evaluation is a judgement of the food based on its sensory qualities.

The adjectives used to describe food are known as sensory descriptors.

