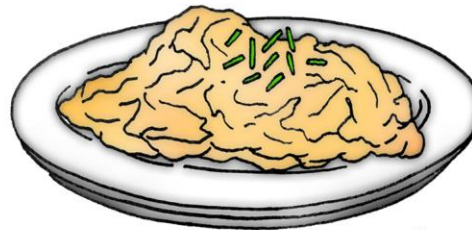
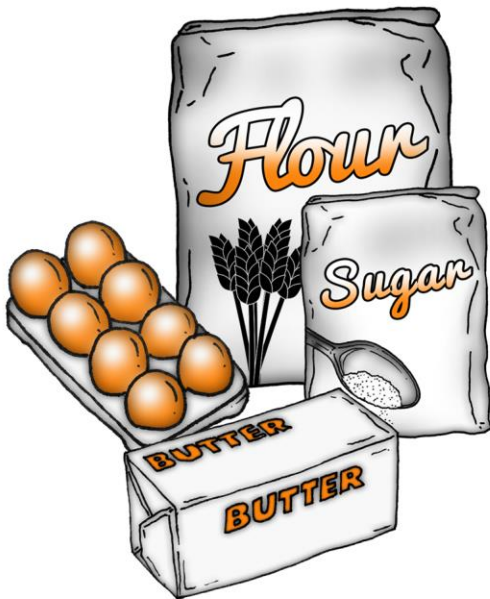
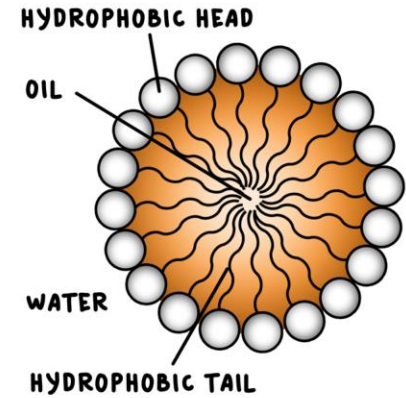




GraspIT

FOOD SCIENCE



Cooking of Food

Is it important to cook food?

- Discuss why cooking meat in different ways will be beneficial to someone's diet.
- Explain why cooking chicken thoroughly is important.
- Discuss the range of ways fish can be prepared to give variety in the diet.

Heat Transfer

- Explain how a cooker transfers heat energy to food when grilling cheese sandwich and cooking a casserole. Consider how the methods used affect the finished dishes sensory characteristics.
- Discuss the advantages of blanching vegetables, fruit and nuts.
- Boiling and steaming are common methods of cooking carrots. Discuss which of these methods would be better to cook finely diced carrot. Justify your answer.
- Explain how heat is transferred when making a stir fry.
- Discuss the advantages of a fan assisted oven over a gas oven.
- A recipe suggests dry frying minced beef for a cottage pie. Explain why.
- A recipe for roast chicken says to 'place in a preheated oven, and baste chicken every 30 minutes'. Discuss the advantages and disadvantages of roasting and basting the chicken.
- Healthy eating and therefore cooking methods chosen are important in achieving a healthy diet. Explain why stir fried dishes are often healthier than those cooked with other frying methods.

Functional Properties of ingredients

Functional is the how they change food, (what different ingredients do in recipes).

- Explain what the function a flour is in cake, sauce and pastry making.
- Examine the function of fat in cake, sauce and pastry making.
- Explain the function of sugar in cake making.

Chemical Properties of ingredients

Chemical is the science to explain the changes, (how and why different ingredients react and change).

- Explain what the chemical properties of flour is in cake, sauce and pastry making.
- Examine what the chemical properties of fat in cake, sauce and pastry making.
- Explain what the chemical properties of protein in cake, dough and omelette making.



Functional & Chemical Properties of proteins

- Explain why over whisking a foam such as egg white can cause it to collapse.
- Describe what syneresis is using the example of processes of cooking scrambled eggs.
- Explain what happens to cream when you add lemon juice to it.

Functional & Chemical Properties of carbohydrate

- Analyse why when baking bread the outside of the dough forms a crust and goes brown.
- Discuss why it is important to stir a roux based sauce throughout the cooking process.
- Explain why it is important melt sugar gently with water and not stir to form a caramel sauce.

Functional & Chemical Properties of fats & oils

- Examine why sugar and fat are beaten together during the creaming method.
- Explain why an emulsifier has to be both hydrophilic and hydrophobic.
- Describe to how short gluten molecules are formed during shortcrust pastry making.

Functional & Chemical Properties of raising agents

- Explain the conditions required for yeast in a dough to work effectively.
- Amar is making some cupcakes using the creaming method and is using SR Flour discuss how the cake mixture will be aerated.
- Sadie is making eclairs, the choux pastry is very runny and after baking the eclairs come out flat and have not risen. Explain what has gone wrong.
- Explain how lamination in flaky and puff pastry making the pastry rise in baking.