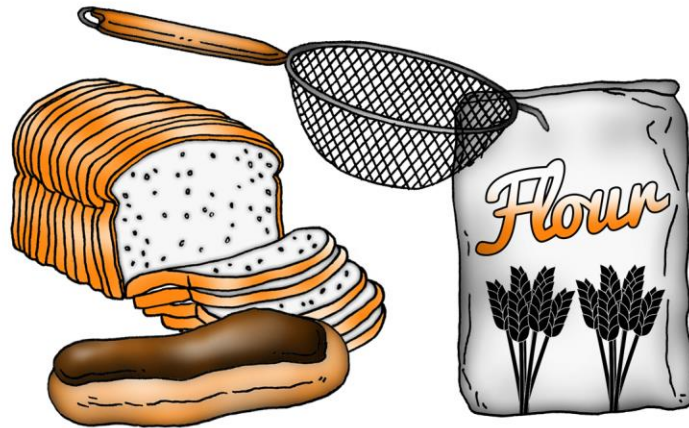
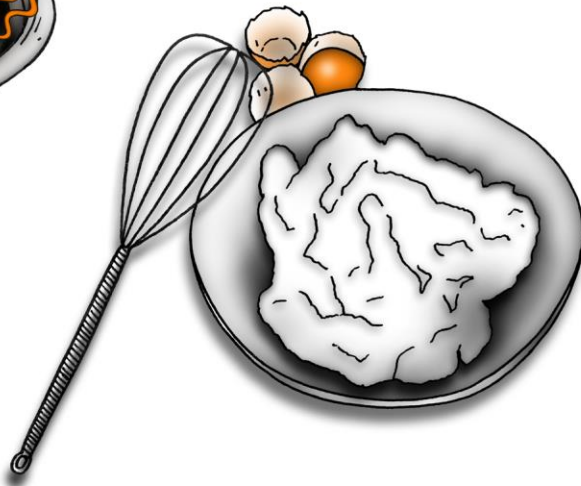


KnowIT FOOD SCIENCE



Cooking of Food

Is it important to cook food?

- Identify 5 reasons why we cook food?
- Can you explain how cooking food improved the texture and give an example?
- Cooking food improves flavour can you explain why.

Chemical Properties of ingredients

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

Functional & Chemical Properties of carbohydrate

- Where is starch found?
- Liquid can be thickened with starch, what is the process know as?
- Describe the process starch goes through to thicken a liquid.
- What is dextrinisation?
- Identify 2 food products where dextrinisation occurs?
- What is caramelisation?
- Identify 2 food products where caramelisation occurs?

Heat Transfer

- List the 3 methods of transferring heat to food.
- Can you draw a diagram to illustrate these methods.
- What are the 6 water based methods of cooking food.
- Identify 3 fat based methods of cooking.
- What are the 4 dry methods of cooking.



Functional & Chemical Properties of fats & oils

- What are the chemical structures of fats and oils?
- Define is plasticity?
- What is shortening?
- Define is aeration?
- What is emulsification?
- Identify 2 examples of emulsification in food.
- Identify the emulsification agent used in mayonnaise.

Functional Properties of ingredients

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

Functional & Chemical Properties of proteins

- What is the chemical structure of protein?
- What is denaturation?
- What is coagulation?
- What is gluten?
- When is gluten formed?
- Why do we use strong plain flour to make bread?
- Why must you knead bread for several minutes?
- Why does a bread rise and then set in the oven?
- What is a foam?
- When is a foam formed?
- How can a foam be stabilised?

Functional & Chemical Properties of raising agents

- What are the 3 groups of raising agents?
- In which ways is air introduced as a raising agent in food?
- Identify how CO₂ introduced as a raising agent in food?
- In which ways is yeast introduced as a raising agent in food?
- Why do ovens need to be hot for batter to rise?