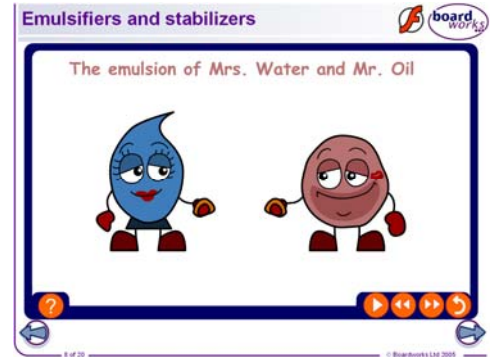


## Food Technology

### Additives 20 slides

This presentation explains what additives are and their role in food production. It looks at the different types of additives in detail (emulsifiers, stabilizers, flavourings, flavour enhancer, colourings, preservatives, antioxidants and sweeteners) and their beneficial and detrimental effects.



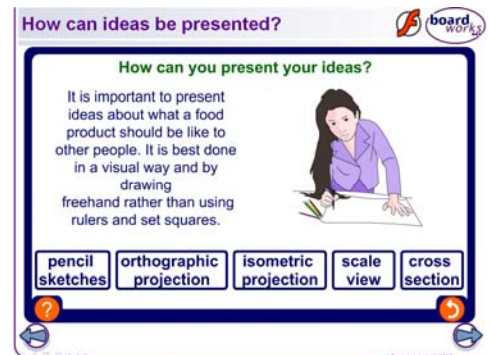
### Cooking Choices 22 slides

This presentation explains how cooking affects food and about the different types of methods used (convection, conduction and radiation cooking). It also explains about the different types of cooking equipment which can be used in the preparation of food.



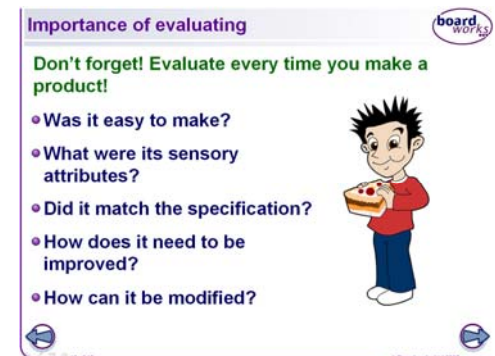
### Designing and Developing Ideas 16 slides

This presentation explains the ways in which new ideas for food products are generated as well as showing how initial ideas are filtered so that only suitable ideas for products are developed. It explains how final ideas can be modelled by prototypes.



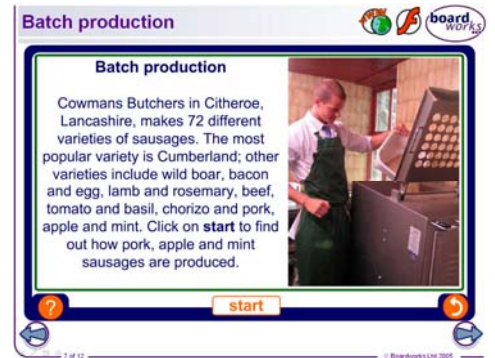
### Evaluation Techniques 15 slides

This presentation explains how to analyse information obtained through research activities, how to write an outline and product specification and how to evaluate products which have been made. It also describes what a manufacturing specification is.



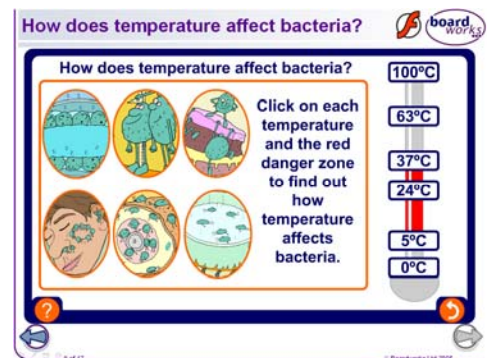
**Food Production Systems** 12 slides

This presentation explains about the system of food manufacture. It provides examples of the different types of food production systems (one-off, batch and mass production) and discusses the advantages and disadvantages of these systems.



**Hygiene** 17 slides

This presentation explains the importance of good hygiene practices and discusses the conditions in which bacteria will grow. It covers the different types of pathogenic bacteria and their symptoms.



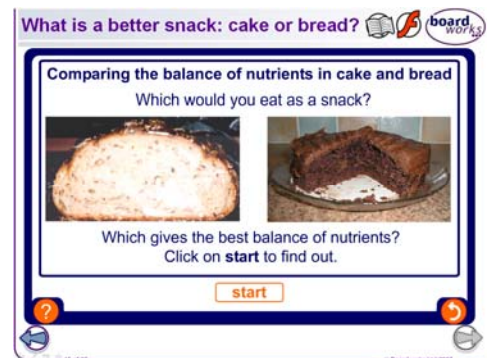
**Labelling and Packaging** 23 slides

This presentation explains about the function of food packaging and the different materials used. It discusses what information must be provided on the packaging and what effect food packaging has on the environment.



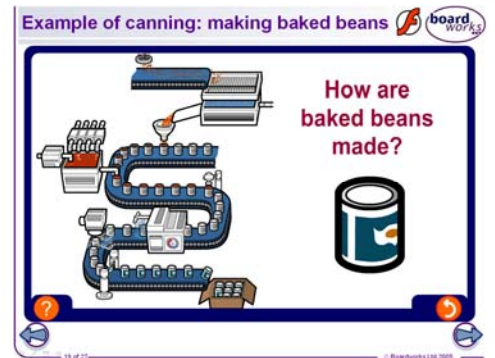
**Nutrition** 28 slides

This presentation explains about the importance of eating a balanced diet and the function of macro- and micronutrients. It shows the foods in which different nutrients can be found and the foods which provide most energy. It also explains the importance of the two non-nutrients, fibre and water.



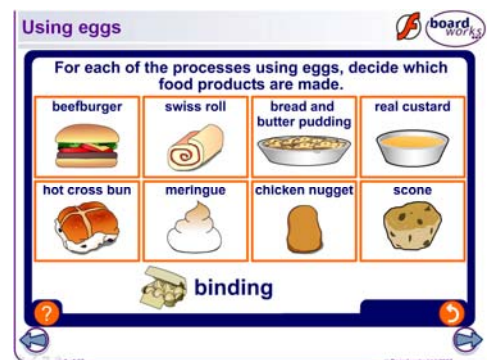
## Preservation *27 slides*

This presentation explains what food preservation is and the different methods used to preserve food. It explains the effect of temperature on food as well as how methods of preservations can affect the structure, taste, appearance and flavour of the food.



## Properties of food *27 slides*

This presentation explains about the chemical and physical properties of sugar, fat, starch and protein. It shows that it is very important to understand about the properties of food in order to create successful food products.



## Quality Control *16 slides*

This presentation explains what quality control is and about the quality control checks used in food manufacture. It shows how computer-aided manufacture and standard components help to ensure the quality of food products.



## Research *19 slides*

This presentation explains how research activities are carried out in order to generate new ideas and describes in detail the different kind of research methods which can be used (product analysis, product comparison, questionnaires and Internet searches).



## Risk Assessment and HACCP 19 slides

This presentation explains the importance of risk assessment and how it is used to identify and prevent hazards. It covers the different types of hazards as well as showing how HACCP plans can be written.

Complete the table on risk assessment


Hazard	Type	CCP	Preventative measure
chicken not cooked thoroughly	physical		monitor cooking times and temperatures
metal fragment in frozen peas	chemical		scan packs with x-rays
hair in soup			rinse equipment thoroughly

## Sensory Analysis 12 slides

This presentation demonstrates how sensory analysis is used to guide decisions in the designing of new food products. It explains about the different types of tests which can be used and how they should be carried out so that results are fair and accurate.

Sensory analysis quiz

Which test would you use?



## Smart and Modern Ingredients 25 slides

This presentation explains what smart and modern ingredients are and why they are used in food manufacture. It covers the different types of smart and modern ingredients.

Properties of quorn

- It has a texture similar to chicken and breaks down in the mouth during chewing just like meat.
- It is high in protein and low in fat. It is a good source of B vitamins.
- It lacks flavour but absorbs surrounding flavours well.
- It is not suitable for vegans as egg white is used in the process.
- It contains more fibre than meat but still only quite a small amount.



## Social and Economic Issues 20 slides

This presentation explains about the social, moral, cultural and economic implications of food production. It demonstrates the considerations which must be taken into account by food manufacturers when developing food products.

Seasonal food

When are these foods in season?



summer and autumn    autumn    winter    summer

**Special Diets**

22 slides

This presentation explains how dietary needs change through life and how a number of factors (religious, personal and medical) can affect people's diets.

What foods do vegans eat?

**What foods do vegans eat?**  
Click on each of the food groups to find out.

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**Structures of Food**

19 slides

This presentation demonstrates how different sauces are made. It also explains how different colloidal structures are formed such as sols, gels, foams and emulsions.

How is a foam formed?

A foam is formed when a **gas is mixed into a liquid or solid**.

For example, as raw egg or cream is whisked, air bubbles (gas particles) are added to the mixture. The mechanical action of the whisking makes the **protein** in the egg or cream **unfold to form a network**. The network traps the air and forms a foam.

Such a foam is unstable unless it is cooked (as in meringues, cakes or bread) or a gel is added to set it (as in a fruit mousse).

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