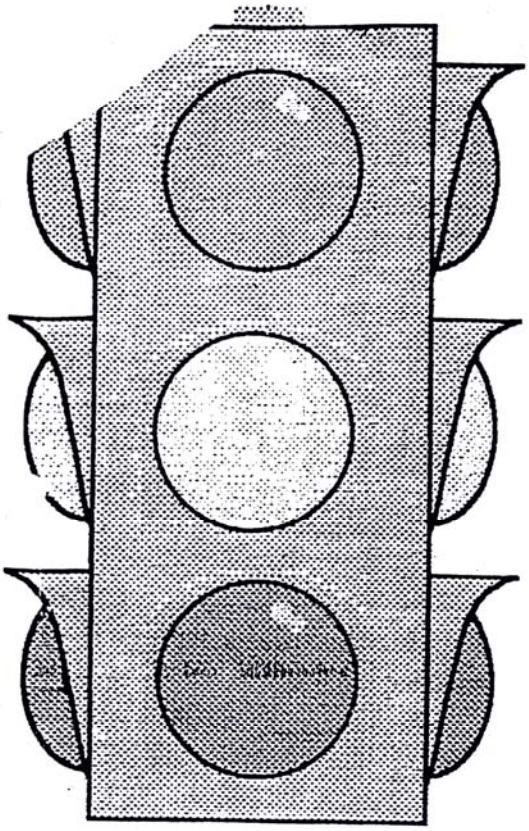


Ready Steady Cook!

Information Sheets

Ready Steady Cook

This unit will introduce you into working in a Food Technology Room. It will last for 18 hours. You will be assessed on how well you work throughout the unit. You will be encouraged to work at as high a level as possible.

By the end of this unit you will be able to:

- Work in a safe and hygienic manner
- Follow a recipe
- Measure accurately
- Identify and use a range of kitchen equipment safely
- Use the hob, oven and grill to produce a variety of dishes
- Peer assess
- Set realistic targets for yourself

By the end of this unit you will have learned about:

- Safety in the kitchen, at home and in school
- The importance of hygiene – personal, kitchen and food
- The range of kitchen equipment
- The importance of accurately weighing and measuring
- The safe use of the cooker

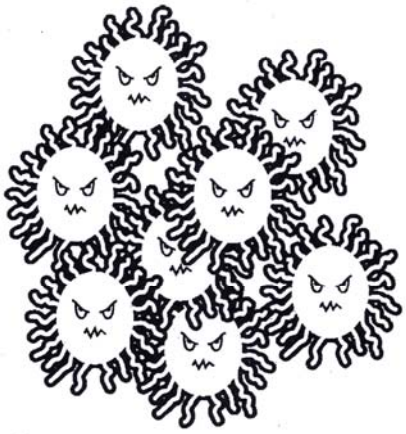
By the end of this unit you will have learned by:

- Using a variey of sources of information – teacher, other pupils, adults, information booklet, leaflets, posters, textbooks, CD Roms video and internet
- Working by yourself or with a partner
- Completing written tasks in school and at home
- Carrying out practical tasks
- Carrying out self and peer assessment
- A stations approach to learning

PERSONAL HYGIENE

When you make food for yourself or for other people, you must make sure that it is safe to eat and that it does not cause food poisoning.

It is therefore very important that the person making the food has good personal hygiene.

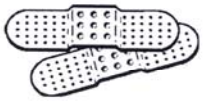


Nasty harmful bacteria which can cause food poisoning

Good personal hygiene means:

1. Washing your hands carefully using hot, soapy water before preparing food.
   Also wash hands after going to the toilet or blowing your nose, so that bacteria are not transferred to food.
2. Removing all rings and nail varnish to prevent them from transferring bacteria onto food, and also to stop the rings and nail varnish falling into food.

3. Always using a clean apron so that normal clothing does not come into contact with food and so that your clothes do not get dirty.
4. Tying long hair back in order to prevent it from dropping into food.
5. Rolling sleeves up to prevent them from coming into contact with food.
6. Covering cuts with a blue plaster (blue plasters are used because they can be easily seen if they fall into food).
   They also contain a magnetic strip that can be picked up by a metal detector.



7. Never licking fingers or equipment and then putting them into food.
   There are harmful bacteria in your mouth and these could be transferred to food.
8. Not coughing or sneezing over food because harmful bacteria could be transferred to the food.
9. Not handling food if you have a bad cough or have sickness and diarrhoea as you are more likely to transfer harmful bacteria to food.

PERSONAL HYGIENE

1 What may happen if you do not have good personal hygiene when handling food?

_____

_____

2. Why must we wear a clean apron during a practical lesson?

_____

_____

3. How should we prepare our hands for a practical lesson?

_____

_____

4. Why should we use blue plasters to cover cuts and sores when we are handling food?

_____

_____

5. **a)** Name **2** other personal hygiene rules that we should follow in a food technology room.

i) _____

ii) _____

b) In the space below, draw and label a diagram to show one of the rules that you have listed above.

Safety

It is important to remember the kitchen is the most dangerous room in the house. Each year thousands of people are injured through accidents. Most of these accidents could be avoided.

The Most Common Accidents in the Kitchen.

1. Cuts caused by
   - -misuse of sharp knives, scissors.
   - -leaving sharp knives, scissors in the reach of young children.

2. Falls caused by
   - -standing on stools or chairs to reach things.
   - -toys, pets, young children or any other things on the kitchen floor.

3. Burns caused by
   - -not using oven gloves.
   - -careless use of the cooker. *matches lying around

4. Scalds caused by
   - -pan handles sticking out.
   - -flexes from kettles trailing over the edge of the units

5. Poisoning caused by
   - -medicines lying within the reach of children
   - -bleach or other chemicals in low down unlocked cupboards

Rules for Safety in the Food Technology Kitchen

1. Keep all bags and jackets away from the work area.
   -To prevent people tripping over them.

2. No running in the kitchen.
   -To avoid causing accidents with sharp equipment or hot food and liquids.

3. Put stools away when cooking.
   -To prevent tripping over them.

4. Wipe up all spills
   -to prevent slipping

5. Carry knives with point downwards.
   -To prevent knocking over pans or pan handles heating up

6. Switch off cooker and all electrical equipment after use.
   -To avoid someone getting burned or a fire starting.

7. Listen to instructions.
   -To ensure safety at all times.

HEALTH AND SAFETY IN THE FOOD TECHNOLOGY AREA

Before you design and make any food product you need to know about:

- Food hygiene
- Personal hygiene
- Food safety

It is important to have a list of health and safety rules to follow in a food technology room so that you are able to work safely and hygienically.

With a partner, study the picture above and see how many hygiene and safety hazards you can identify.

Discuss how and why they may constitute a hazard.

HEALTH AND SAFETY IN THE FOOD TECHNOLOGY AREA

TASK

Using the picture on the previous page, make a list of rules for students to follow in your Food Technology room. (Rules to show how the hazards may be prevented).

1. Wash hands before starting to prepare food.
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

From the list of rules above **choose 5** and explain why each is important in the kitchen.

1. _____
   _____
2. _____
   _____
3. _____
   _____
4. _____
   _____
5. _____
   _____

We all need to eat and drink to stay alive. However, if you don't take care when you buy, prepare and cook your food, it can make you ill.

task 1a Mini survey: Micro-organisms and food poisoning

Produce a small questionnaire on food poisoning to find out what people know about it. Find out how many people in your class have experienced food poisoning, or knows someone who has. Ask them to describe the symptoms and to name the foods which may have caused it. Record the results.

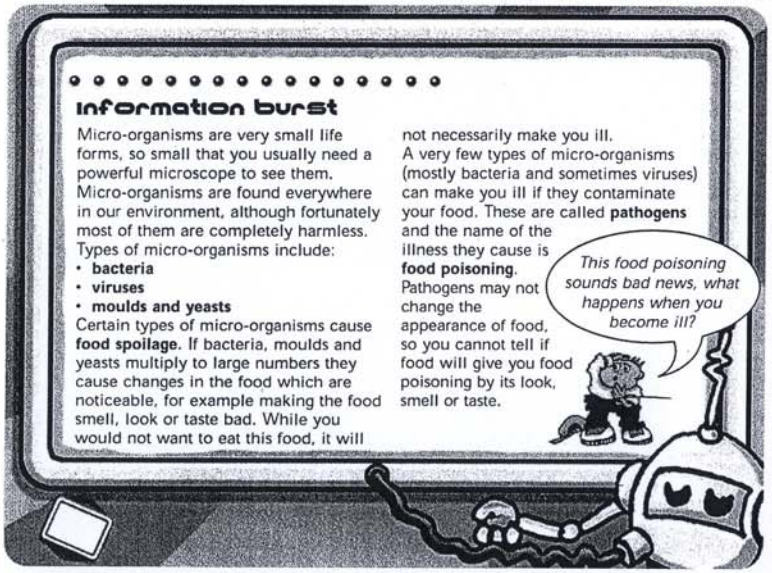
information burst

Micro-organisms are very small life forms, so small that you usually need a powerful microscope to see them. Micro-organisms are found everywhere in our environment, although fortunately most of them are completely harmless. Types of micro-organisms include:

- **bacteria**
- **viruses**
- **moulds and yeasts**

Certain types of micro-organisms cause **food spoilage**. If bacteria, moulds and yeasts multiply to large numbers they cause changes in the food which are noticeable, for example making the food smell, look or taste bad. While you would not want to eat this food, it will not necessarily make you ill.

A very few types of micro-organisms (mostly bacteria and sometimes viruses) can make you ill if they contaminate your food. These are called **pathogens** and the name of the illness they cause is **food poisoning**. Pathogens may not change the appearance of food, so you cannot tell if food will give you food poisoning by its look, smell or taste.



The illness usually lasts 1-2 days.
The most common symptoms are:

- stomach and gut pain
- feeling and being sick
- diarrhoea

Anyone can be affected by food poisoning but some people are particularly at risk.
The most vulnerable people are:

- babies & toddlers
- older people
- people who are already ill
- pregnant women

This is because they have less resistance to illness. For these people getting food poisoning can be very serious.

Food poisoning is very common. In 1998 there were almost 100,000 reported cases of food poisoning in the UK. The real number is thought to be much higher as not everyone who is ill goes to their doctor.

With most cases of food poisoning people recover in a few days. Sometimes the illness will be much more serious and it can kill people. In 1997 nearly 50 people died as a result of salmonella food poisoning.

This is much less than for some other everyday risks, such as crossing the road, but it does show that getting food poisoning can be very serious.

task 1b Design and make a leaflet

Design and make a leaflet on food poisoning.

Food poisoning is completely preventable. It only happens when someone makes a mistake. Everyone involved in the manufacture, sale, transportation and purchase of food has a role to play in preventing food poisoning. There are rules you can apply when storing, preparing and cooking food which will ensure that the food on your fork is safe to eat. These are called the rules of food hygiene.

FOOD STORAGE

It is important that food is stored in the correct area of the kitchen. This is to make sure that it reaches its "**use by**" date in the best possible quality e.g. looking, tasting and feeling the best it possibly can, as well as not containing harmful bacteria which could cause food poisoning.

Different types of foods can be stored in different ways.

DRY FOODS
(storage temp approx 12°C).

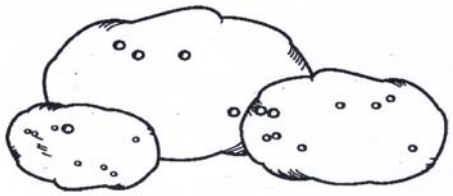
For example, flour, sugar, rice, biscuits and tinned foods.

These are foods which need to be stored in a cool, dry cupboard.

SEMI-PERISHABLE FOODS
(storage temp approx 6–12°C).

For example, bread, potatoes, apples, bananas and carrots.

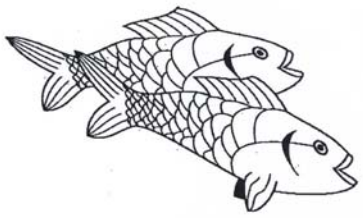
These foods need to be stored in cool, dry areas e.g. a vegetable rack, as they can go off quite easily.



PERISHABLE FOODS
(storage temp approx 0–4°C).

For example, eggs, cheese, milk, fish and yogurt.

These foods need to be stored in the refrigerator as they can go off very easily.



FROZEN FOODS
(storage temp approx –18°C).

These are foods which need to be stored in the freezer.*

They should be stored and cooked according to the instructions on the label.

* For example, ice-cream, fish fingers and frozen vegetables.

Information burst

Pathogens get into the kitchen on:

- raw foods
- pests and pets
- dirt and food waste
- people

These are called the sources of pathogens.

The main source of pathogens in the kitchen is actually **raw food** itself, especially **raw poultry and meat.** Pathogens (e.g. Campylobacter and Salmonella) live in the guts of farm animals, which can then be transferred to the outside of raw meat during the slaughtering process. **Raw eggs** may contain **Salmonella** and **raw vegetables** may have a small number of pathogens on them from the soil.

Obviously you can't keep raw foods out of the kitchen but you can stop the raw foods from contaminating other foods and **control the pathogens by stopping them from multiplying.**

task 3a Demonstration identifying sources of contamination

A very important source of pathogens in the kitchen is you! The pathogen Staphylococcus aureus is carried by people in their **mouths, nose, on their hair and skin.** It can be spread to food by touching, sneezing or coughing on it. Even healthy people sometimes have pathogens in their **gut** that may be passed out in faeces and picked up on hands through toilet paper. These could include **Salmonella** and **Campylobacter.** This is why washing your hands after going to the toilet is so important.

Lesson 3 Danger in the Kitchen

Pets such as cats and dogs and even terrapins carry pathogens such as **Salmonella.** If you washed yourself like a cat you wouldn't get very clean! This is why it is very important to wash your hands after touching pets, particularly if you are going to handle food.

Insects (e.g. flies) and **rodents** (e.g. mice) bring pathogens into the kitchen and are particularly good at spreading them around. If you think about where flies and other pests feed, it isn't surprising that you want to keep them away from your food.

Food waste may contain pathogens and attracts pests, which bring even more pathogens into the kitchen. This is why you must empty the kitchen bin regularly and always wash your hands after touching it.

task 3b Prepare a sandwich

Imagine that you are in charge of preparing sandwiches in a Youth Club. What precautions should you take to ensure that food is safe and free from contamination?

People bring pathogens into the kitchen on their skin and in their guts, they also move pathogens around by touching things. This is why **personal hygiene** in the kitchen is so important. Before preparing food it is important to thoroughly **wash your hands** with soap and dry them, not on a tea-towel! It's a good idea to **wear an apron** to stop your clothes from getting messy and to protect the food from any bacteria on your clothes.

Particular care should be taken if preparing foods when you are suffering from sickness and/or diarrhoea, because you may be carrying pathogens, which could spread to the food.

task 3c Non-pathogenic picnic

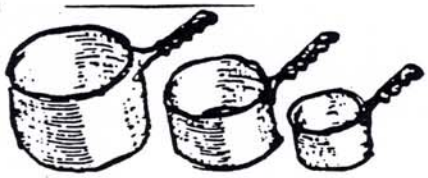
Design and make a 'safe food' product for a picnic. Consider what would make the food safe, how you would make it, and explain how you would store it.

KITCHEN EQUIPMENT - Information sheet

Vegetable Knife - To cut, chop,slice, prepare fruits, vegetables etc.

Chopping Board - To cut, chop etc. food on. Prevents marking work top.

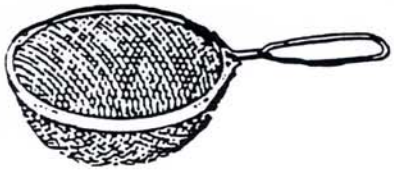
Palette Knife - Used to mix dough, lifts, mixes and spreads mixture. Aids removal of baking from tin etc. Bends slightly.



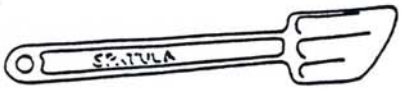
Pots and Pans - Various sizes for boiling, stewing, sauce making etc.

Measuring Spoons - To measure small quantities of ingredients.

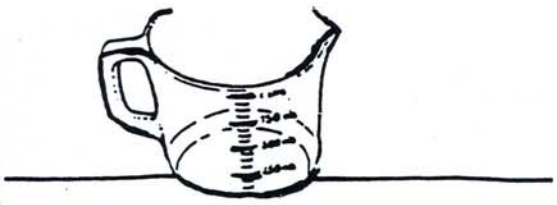
Wooden Spoon - To mix mixtures in baking bowl.



Sieve - To remove lumps from flour, adds air to flour.



Spatula - Helps to scrape off mixture sticking to side of baking bowl.



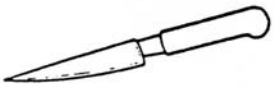
Measuring Jug - To measure liquids accurately.

Information Sheet

Cutting Tools

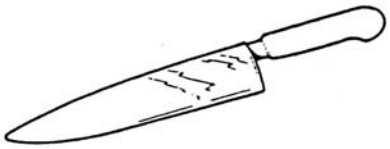
Vegetable peeler

A vegetable peeler has a V-shaped blade with a sharp slot down the centre for peeling. The point of the blade is used for picking out blemishes. It is used for peeling vegetables and fruits.



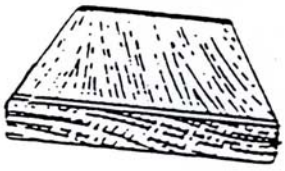
Vegetable Knife

A vegetable knife has a small neat blade 8cm long and may be serrated. It is used for paring vegetables.



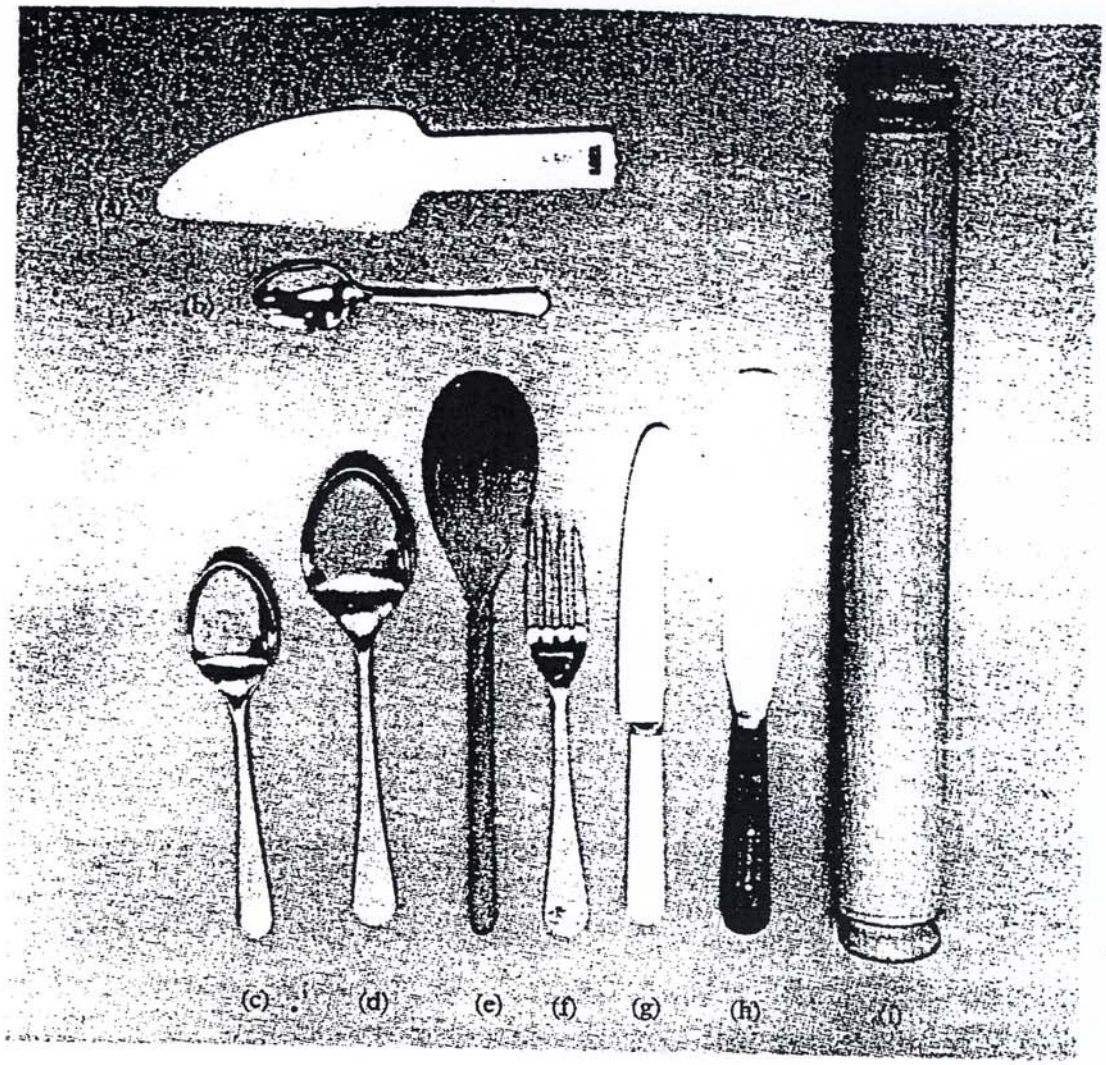
Cooks Knife

A cook's knife has a strong, pointed, sharp blade, which can be 17 - 25 cm long. It is used for slicing,dicing, chopping and shredding.



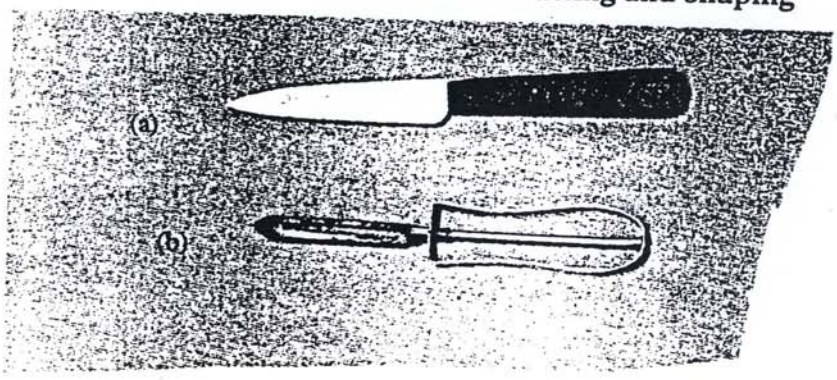
Chopping Board

This is used to protect the table or worktop and protects the knife blade from damage. It is used for cutting and preparing meat, bread, fruit and vegetables etc. It is important to keep it very clean to prevent the spread of bacteria



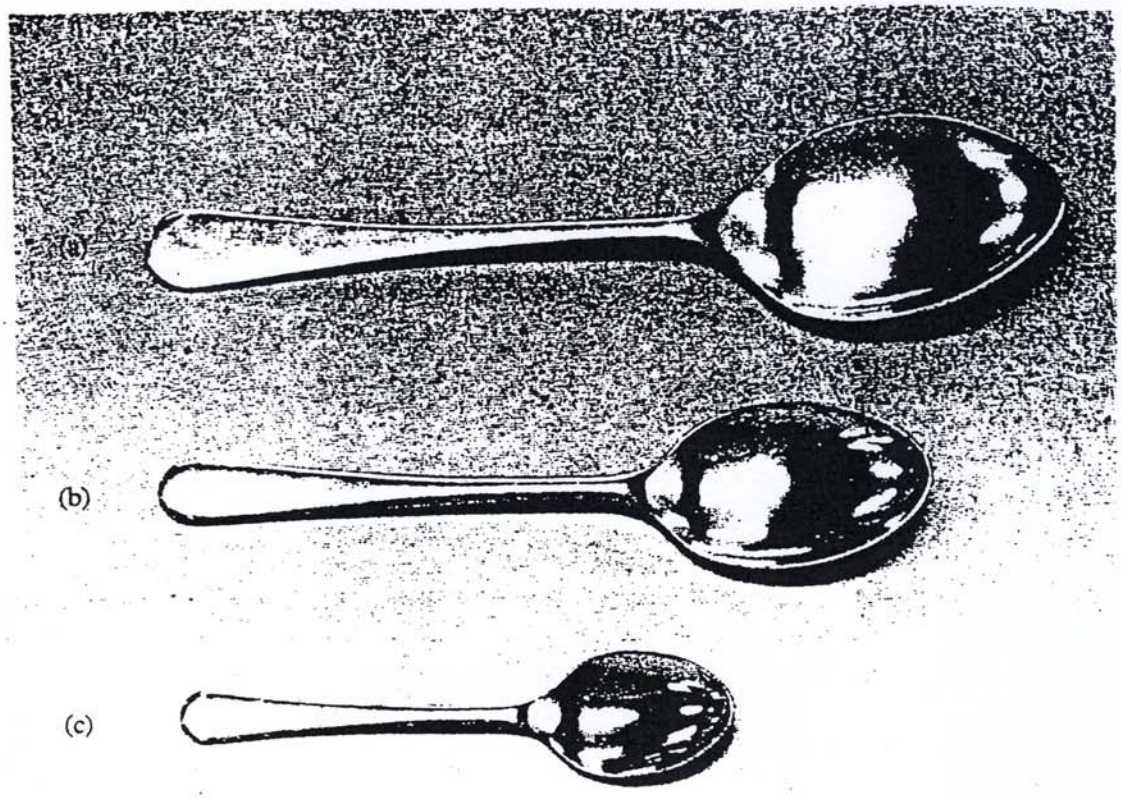
(a) spatula; (b) teaspoon; (c) dessert spoon; (d) tablespoon; (e) wooden spoon; (f) fork; (g) table knife; (h) palette knife; (i) rolling pin.

Tools for cutting and shaping



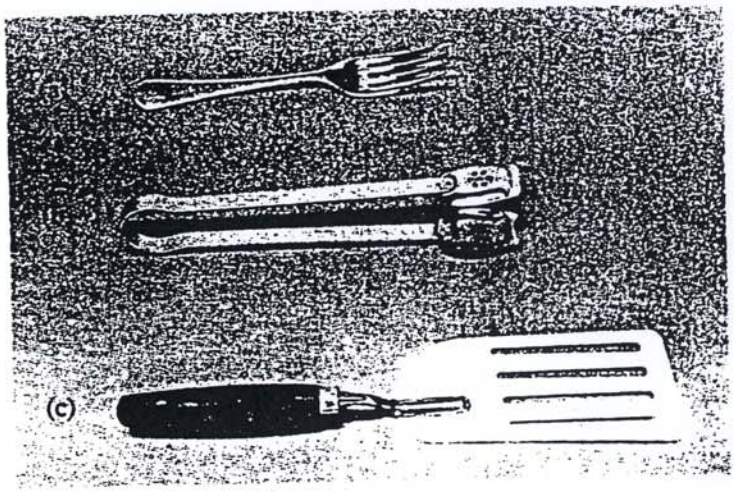
(a) Vegetable knife: for cutting and scraping small pieces of food.
(b) Vegetable peeler: for peeling vegetables and fruit thinly.

Tools for stirring, measuring and holding foods



(a) tablespoon; (b) dessert spoon; (c) teaspoon.

Tools used for picking up or turning hot food



(a) Fork: used to lift up or turn solid food, but it can be risky if the food falls or crumbles.
(b) Tongs: used for picking up solid pieces of food and turning it over.
(c) Fish slice: this has a long wooden or plastic handle. It also has a flat, lifting surface with holes for draining food while lifting it.

Using Cookers Safely

THE GRILL

The grill cooks food by dry heat. It is used to make toast, bacon, hamburgers etc.

Safety points when using the grill

- **Do not push the handle** of the grill pan under the grill
- **Watch the food carefully** when under the grill, it will burn very easily
- Make sure that you **switch the grill off** as soon as you have finished using it.

THE OVEN

The oven is used for baking, roasting and cooking casseroles

Safety points when using the oven

- Arrange the oven shelves **before** switching on the oven
- Make sure you have put the correct oven on - usually the main oven, not the top oven
- Always use **oven gloves** when lifting hot trays
- **Never** leave the oven door open.

THE HOB

The hob is used for boiling, stewing, simmering, steaming and frying

Safety points when using the hob

- When using gas hobs **do not** allow the flames to come up the sides of the pot
- Always make sure the pan handles are **turned in** and not hanging over the cooker edge
- Always **switch the hob off** as soon as you have finished with it.

COOKERS

SAFETY

DO NOT TURN ON BURNERS UNLESS TOLD TO DO SO AND SWITCH OFF AFTER USE

DO NOT TOUCH SWITCHES WITH WET HANDS OR TURN THE OVEN ON UNLESS TOLD TO DO SO

It is important that you can be trusted to operate them safely to prevent damage and to ensure the safety of everyone in the room.

The cookers in the room are all gas hobs and electric ovens. When using the cookers the teacher will switch on the gas supply and you must have the cooker switch on before the cooker will work.

The teacher will demonstrate how to operate the cookers in Food Technology.

Complete the activities in Section A and B to receive your "Cooker Operators' Licence". Your participation in practical lessons depends on this!

Section A The Hob

1 Draw a quick sketch of the hob and the control panel. Show on your drawing which switch operates each burner. There should be symbols on the control panel to help you.

2 Are all the burners the same size? Yes/ No
If no why do you think this is?

_____

_____

3 Can you find the ignition button? Yes / No

4 What happens when you slowly press the ignition button?

_____

_____

5 Why do you have to push the control switch in?

_____

_____

6 Why does gas smell?

_____

_____

7 Gas hob – light a burner suitable for a small pot at a low heat (simmer)

8 Gas hob – light a burner suitable for a large pot at a high heat to boil

Section B

1 Draw a quick sketch of the inside of the oven.
Show if there is a fan at the back.
Show the number of shelves.

2 Open the oven door, is there an inner glass door? Yes/No
Why do you think that there is an inner door?

_____

_____

3 Is the inside of the oven rough? Yes / No
If yes, the oven is self- cleaning.

4 Draw the control dial for the oven. Show how it is numbered.

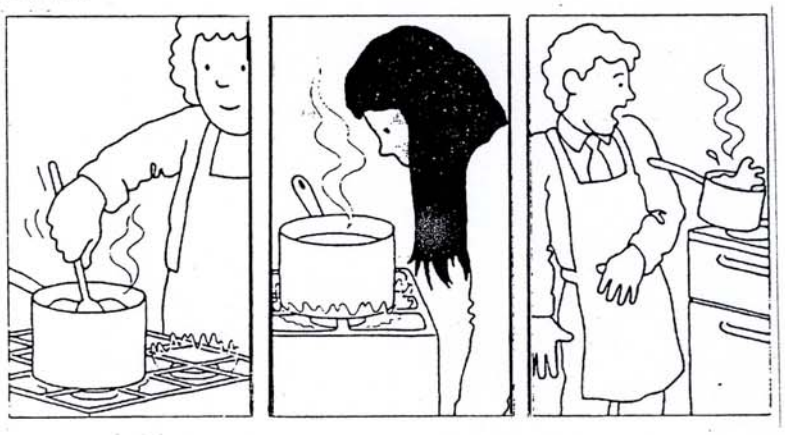
5 Turn on the oven to 180c

6 What happens when you turn on the oven?

_____

_____

7 Use the pictures to help you produce a set of safety rules for using the cooker



_____

_____

_____

8 Can you think of 3 recipes that could be made in each part of the cooker?

Hob 1_____ 2_____ 3 _____

Grill 1 _____ 2 _____ 3 _____

Oven 1 _____ 2 _____ 3 _____

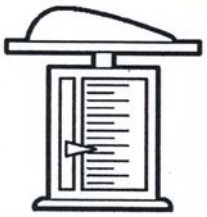
WEIGHING AND MEASURING

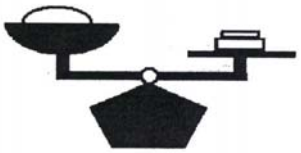
It is important that you always weigh and measure ingredients accurately (correctly), as a dish could be spoilt by using the wrong amounts of ingredients.

Useful equipment for weighing and measuring foods

Electronic scales
The weight of the food is displayed digitally at the front of the scales. Make sure that the balance is set to zero before weighing food. Gradually, add the food to the pan until the weight you require is displayed e.g. 100g.

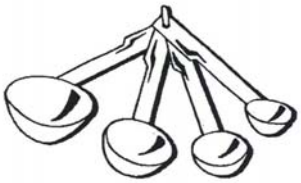
Spring balance scales
The pan rests on top of a spring that works a pointer. The pointer moves round the dial on a face like the hands on a clock. Make sure the pointer is set at zero before weighing. Gradually add the food until the pointer reaches the weight you want e.g. 50g.





Lever balances
Put the weights you require on one side and then put the food to be weighed in the pan on the other side. Add food slowly until the weights rise and both pans are level.

Measuring jugs
Liquids are measured by volume. You must look at the scale on the side of the jug at eye level whilst measuring out the liquid.



Measuring Spoons
Special measuring spoons, can be bought in the following sizes: 1.25ml, 2.5ml, 5ml, 10ml, 15ml and 20ml.
Dry ingredients or liquids can be measured out using a measuring spoon.

A spoonful of any dry ingredient means a **rounded** spoonful (as much above the rim as below it).

Microwave Ovens – Information Sheet

How do they work?

When the microwave is switched on a high frequency wave enters the food and causes the bits of food to vibrate and rub together. The vibration cannot be seen with the eye but it produces heat in the form of friction. This cooks the food from the inside.

This can only happen if the high frequency wave can get through the container the food is in. For this reason it is important to remember that:

- Microwaves are reflected by metal
- Microwaves will penetrate glass, some plastics, paper, china and basket ware.

What are the advantages of microwave ovens?

Microwave ovens suit our modern lifestyles for the following reasons:

- They cook food quickly
- They are easy to clean
- They save energy
- It cuts down on washing up
- It requires less fat than normal cooking methods.

What are the disadvantages of microwave ovens?

There are some drawbacks of using microwave ovens such as:

- They can not grill or fry foods
- Foods cannot be browned or become golden.

Cooking Using the Microwave Oven:

Microwaves can be used to cook a variety of different foods like:

Soup	Cakes
Puddings	Fish
Baked Potatoes	Meat
Eggs	Preserves like jam and lemon curd

Defrosting Using the Microwave Oven:

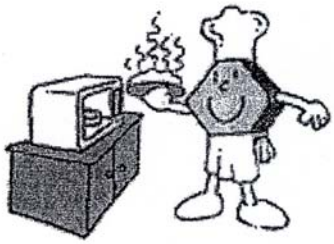
They are also useful for defrosting food like joints of meat or a loaf of bread.
When defrosting you must be careful not to partially cook the food as this could give you food poisoning.
The defrost setting on the microwave oven is about a third of the full power setting.

Reheating Using the Microwave Oven:

Microwaves are also useful as a quick way of reheating foods from ready meals to a cup of coffee that has gone cold.

Reheating foods in the microwave means that the texture of the food does not change and the food does not lose moisture or dry out as quickly as in an ordinary oven.
If you cover the food when you reheat it the steam will help to keep it moist and heat it quicker.

Always remember to be safe and use oven gloves when using the microwave oven!!



Microwave Ovens – Worksheet

Read the information sheet and answer the following questions.

1. How do microwaves heat food?

2. Give one advantage of a microwave oven:

3. Give one disadvantage of a microwave oven:

4. Which type of utensil can NOT be used in the microwave oven?

5. Name two sweet foods you could make in a microwave oven:
   1- 2-

6. Name two savoury foods you could make in a microwave oven:
   1- 2-

7. If you have a microwave oven at home – What foods do you cook in it?

8. Name one way that micro wave ovens help us to meet one of the dietary targets:

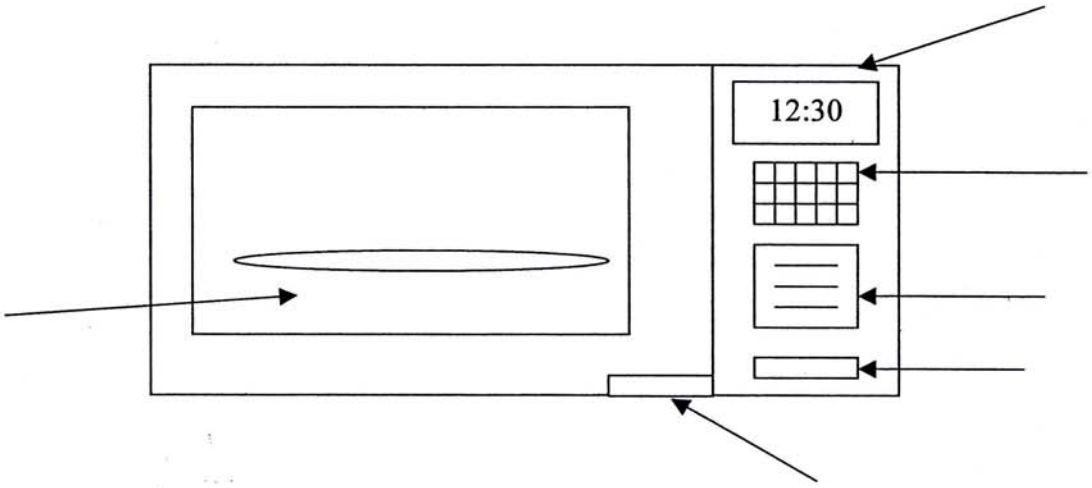
9. Name three cooking techniques that the microwave can be used for:
   1- 2- 3-

10. Why do you need to be very careful when defrosting foods in the microwave?

Microwave Oven Controls

Label the diagram of the microwave using the following words:

List of Programmes
Turntable
Door Catch
Start Button
Touch controls/buttons
Clock



If you have time draw a picture of the type of food you like to cook, inside the microwave.

FINAL SELF-ASSESSMENT

The following chart is called a self-assessment chart. You can use it to judge how well you have worked in your Food Technology lessons.

This chart will help you to pick out your strengths and weaknesses.

Ask yourself the questions in the chart below and use the key to tick the correct box to show how well you have worked.

KEY:

	Only part of the time (badly)
	Some of the time (not very well)
	All of the time (well)

Questions			
Do I understand the lessons?			
Do I enjoy the lessons?			
Do I always follow instructions carefully?			
Do I always consider safety?			
Am I able to use the information given in the lessons?			
Do I organise myself well?			
Can I operate and use equipment?			
Am I able to complete my homework?			
Do I always meet deadlines and hand my work in on time?			
Have I worked to the best of my ability on the packed lunch project?			