

## Topic 1: Getting Ready to Cook

**Personal hygiene** – before starting to cook, you need to get yourself ready:

1. Taking off outdoor clothing (coats, blazers, jumpers and ties) and putting on a clean apron
2. Tying up long hair
3. Cleaning hands with hot soapy water



Good personal hygiene will stop you cross-contaminating food with the harmful bacteria that causes food poisoning. When preparing food you should not be eating your ingredients or licking your fingers.

**Ingredients** – you need to weigh and measure all the foods you need for a recipe before coming to school.

**Equipment** – all the equipment you need to prepare and cook food can be found in the kitchen cupboards and drawers in school.

**Knife safety** – when using a knife to prepare food you need to follow these important rules:

1. Collect the knife by holding the handle and pointing the blade downwards
2. Choose the correct chopping board
3. Use bridge and claw to keep your fingers away from the sharp blade
4. Avoid putting your finger on the top of the blade
5. Wash the knife up first (don't leave in the bottom of the sink)

**Cooker safety** – you will be using all parts of the cooker (hob, grill and oven).

Follow these important rules:

1. Always use oven gloves for the grill and oven
2. Bend your knees to see if your food is cooked – don't get on your knees
3. Adjust the temperature of the hob if food is cooking too quickly or is about to boil over
4. Point handles of saucepans to the side so you don't knock them



**Heat transfer** – food is cooked by transferring heat by conduction (heat from the hob warms up the saucepan and the food inside it), convection (eg heat in the oven warms up the air which circulates around the food to cook it) or radiation (heat from the grill radiates downwards to cook food).

## Topic 2: Healthy Eating

We need food for growth and repair of cells, energy, warmth, protection from illnesses and keep our bodies working properly.

Food is made of 5 nutrients. Each nutrient does a different job in the body. Eating a balanced diet means we get all the nutrients we need for a long and healthy life.



The amount of energy we need depends upon our age, gender, activity level and body size. If we eat more food than we need, and don't use it up by exercising, any energy that's left is turned into fat and we put on weight. If we eat less food than we need, the fat stores are used up and we may end up losing weight.

The Eatwell Guide shows how eating different foods can make a healthy and balanced diet. It divides up different food groups and shows how much of each group is needed. Extra information about the amount of water we need and the labels on food packaging is also provided.



There are also eight guidelines for a healthy lifestyle. They are:

1. Eating at least 5 portions of fruit and vegetables every day
2. Eating higher fibre starchy foods like potatoes, bread, rice or pasta
3. Eating less food high in fats and sugar
4. Eating less salt
5. Eating more fish – including one portion of oily fish
6. Drinking plenty of fluids (at least 6 to 8 glasses a day)
7. Being more active
8. Eating breakfast every day

### 8 healthy eating tips



## Topic 3: Fruit

Fruits are an important part of a balanced diet and should make up two portions of your 5-a-day.

Fruits contain a variety of micronutrients, for example Vitamins C and A, and they are also a good source of fibre.



There are different types of fruit:

1. **Soft fruits** eg raspberries and strawberries
2. **Citrus fruits** eg lemons and limes
3. **Stone fruits** eg plums and apricots
4. **Tree fruits** eg apples and pears
5. **Exotic fruits** eg bananas and kiwis
6. **Dried fruits** eg currants and sultanas

Fruits can be eaten fresh, frozen, canned or dried. They can be preserved in jams or puréed to make a sauce.

Some fruits are grown in the UK and some are imported from other countries. If imported they can travel thousands of miles to get to the shops. The distance travelled between where food is grown and your table is called a 'food mile'. Pollution from food miles can harm the environment.

Most fruits grown in the UK have a growing season - a time of the year when the growing conditions are best. Choosing seasonal foods has many advantages:

1. They have more nutrients as they are fresher
2. They are cheaper because they are plentiful
3. If grown locally you can support local farmers
4. The food miles will be lower so it's less harmful to the environment

There are some disadvantages too. Only eating seasonal or local foods means that your favourite foods might not be available all year round. Your diet could also lack variety.

Some fruits, for example apples, will spoil if you cut them and their cells are exposed to oxygen in the air. This is called enzymic browning and it can be prevented by covering the fruit with fruit juice or syrup.



## Topic 4: Vegetables

Vegetables are an important part of a balanced diet and should make up three portions of your 5-a-day.

Vegetables contain a variety of micronutrients, for example Vitamins C and B, and they are also a good source of fibre.



There are different types of vegetables:

1. **Fruit vegetables** eg tomatoes and cucumbers
2. **Seeds and pods** eg peas and beans
3. **Flower vegetables** eg broccoli and cauliflower
4. **Leafy vegetables** eg spinach and cabbage
5. **Stem vegetables** eg asparagus and celery
6. **Tubers** eg potatoes and sweet potatoes
7. **Fungi** eg different types of mushrooms
8. **Bulbs** eg onions and garlic
9. **Roots** eg carrots and beetroot



Vegetables can be eaten fresh, frozen, dried, canned and juiced.

Eating a rainbow of colours provides different vitamins and minerals and can make a meal look more appetising.

Modern growing techniques and the use of technology mean that vegetables can be grown, harvested and packaged within hours so they are very fresh.

Many supermarkets now sell 'wonky' vegetables. These are different shapes and sizes or the wrong colour but they are still tasty and nutritious. Wonky vegetables are often cheaper to buy and stop good food from going to waste.



Children in the UK are not eating enough vegetables. Advertising campaigns to promote vegetables to children and their parents are trying to tackle the problem.

## Topic 5: Starchy Carbohydrates

Carbohydrate is made by green plants is one of the five nutrients essential for life. There are 3 types of carbohydrate:

1. **Sugar** - simple carbohydrates that can be broken down by the body quickly and turned into glucose for energy
2. **Starch** - complex carbohydrates that are made up of different sugar molecules linked together. The body takes longer to break them down into glucose giving us slow release energy
3. **Fibre** - another complex carbohydrate found in the cell walls of plants. The body can't break fibre down but it is important to help with removing waste from the body



Many starchy foods are grown in the UK. Potatoes are a tuber which grow from the roots of a potato plant. Because they contain so much starch, they are included in the starchy foods section of the Eatwell Guide even though they are a vegetable.

Cereals like wheat are grown, harvested and the seeds milled to produce flour. Flour is used to make baked goods like bread, cakes and scones and also pasta. Oats grow in cool, wet climates and can be milled to make rolled oats and oatmeal. Oats are used to make porridge and flapjacks.



Healthy eating advice suggests that meals should be based on starchy carbohydrates such as breakfast cereals, bread, pasta, potatoes or rice. Wholemeal varieties of these foods are also a good source of fibre and keep you feeling fuller for longer.

Starchy food is often served as an accompaniment for meat, chicken fish or vegetable dishes. Starches, such as cornflour, can also be used to thicken sauces through a processes called gelatinisation.

When starch comes into contact with dry heat it is broken down into a sugar which turns the food brown and gives a nutty flavour and aroma, for example when bread is toasted. This is called dextrinization.

Many starchy foods are baked and use raising agents to give them a light and spongy texture. Raising agents can be chemical (baking powder), mechanical (whisking), physical (water turning to steam) or biological (yeast). Chemical and biological agents work by producing carbon dioxide gas to aerate a mixture.

## Topic 6: Simple Carbohydrates (Sugar)

Sugar and syrup are both types of carbohydrate but you will not find them on the Eatwell Guide because, although we like sugary foods, we do not NEED them in order to be healthy.



Sugar is found naturally in fruits and vegetables and fruit juices. Honey is also a natural sugar made by bees. In addition, there are many types of processed sugars made from sugar beet and sugar cane. They are often called 'free sugars' and examples include granulated and icing sugar and treacle and golden syrup.

These processed sugars are added to many processed foods such as breakfast cereals, biscuits, jams, chocolate and fizzy drinks. It is sometimes difficult to judge how much sugar these foods contain. Sugar is also hidden in some savoury foods such as salad dressings, bread, ketchup and soups. These 'hidden sugars' mean that people eat more sugar than they realise.

You need to look carefully at food labels to identify hidden sugars. They are sometimes called other names like dextrose, glucose, syrup or molasses. Sugars are also listed on the traffic light labelling on packaging. If food is high in sugar it will show up red on the traffic light. Recommended daily intake of sugar is a maximum of 24g or 6 teaspoons for children.



A diet high in free sugars can lead to tooth decay and obesity in children. It is also linked to Type 2 diabetes and some cancers in adults.

People enjoy high sugar foods because they have sensory appeal – it improves the appearance, taste, aroma and texture of food. Sensory evaluation is when you judge food on its sensory appeal. Sensory evaluation is helpful when food manufacturers are launching a new product or improving a recipe. It's important to use sensory words that are objective when you are taste testing eg chewy, sweet, sticky or golden brown.



One reason why sugars improve the colour and flavour of baked foods, such as flapjacks, is because they caramelize when heated. The heat causes water to evaporate which produces a darker, sticky liquid. The longer it is heated, the darker the caramel becomes.