

# Year 7 Food & Nutrition– Knowledge Organiser

**Weighing and Measuring**  
 For good results in most recipes, **accurate** weighing and measuring is essential. When you are baking with flour, sugar and liquids, you must measure accurately or your cooking will be spoiled. If you weigh out too much sugar or too little raising agent, your cakes would not rise or you could spoil the taste and/or texture.  
 Food can be weighed in **Grams (g)** and there are **1000g** in a **Kilogram (Kg)**. Liquid is measured in **Millilitres (ml)** or **litres (L)**. There is 1000ml in 1 Litre. Spoons can also be used to measure smaller amounts of liquids

- **Teaspoon (tsp)** 5ml
- **Dessertspoon (dsp)** 10ml
- **Tablespoon (tbsp)** 15ml

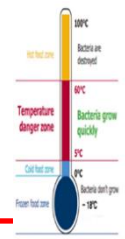
**Equipment:** Weighing scales, knife, chopping board, saucepan, wooden spoon, tablespoon, teaspoon, dessert spoon, mixing bowl, grater, baking tray, cooling rack, vegetable peeler, pastry brush, spatula, oven gloves.

Bacteria need 6 conditions to be able to multiply

- Time
- Food
- Moisture
- Warmth
- Correct pH
- Oxygen (most bacteria need this but some can survive without it).

**4 of the Common Pathogenic Bacteria**

- Salmonella
- Campylobacter
- E coli
- Listeria



## Functions of the Ingredients in cakes

**Fat**  
To moisten the cake and to extend the shelf life. Provides a buttery flavour.

**Sugar**  
To sweeten food and **caramelises** to create a browning effect and a nutty caramel flavour.

**Eggs**  
To set the structure of the cakes by **coagulation**, so

**Self-Raising Flour**  
Forms the structure of the cake and contains baking powder that releases carbon dioxide when the cakes are cooked, so that the cakes rise.

### METHODS OF COOKING

Heat transfers in three ways:

**Conduction**  
 Metal is a **conductor** of heat and carries the heat from the heat source to the food

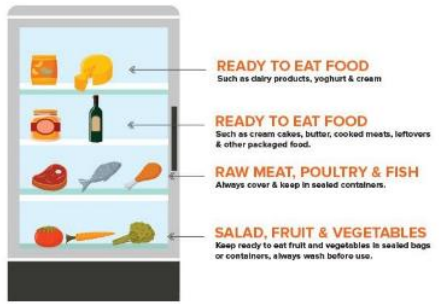


**Convection**  
 When heated, liquids and gases particles expand and rise, causing colder particles to sink, creating convection currents which distribute heat.



**Radiation**  
 Heat is transferred directly onto the surface (though air, no circulation)

You should store meat and poultry on the bottom shelf of the fridge to prevent liquid dripping on to other food. Store in a clean, sealed container. Keep cooked and raw meats separate to avoid cross contamination. The fridge temperature should be between 0°C and 5°C



## Personal hygiene in Food and Nutrition

**Wash hands**  
 Wash hands with warm soapy water to remove bacteria. Nails should be short and clean.

**Long Hair Tied Back**  
 Hair must be tied back or a hairnet worn so that no hair gets into your food.

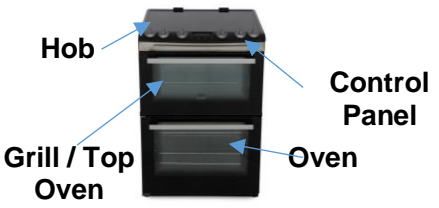
**Wear an Apron**  
 Wear a clean apron to protect your food and your clothes

**Blue Plasters**  
 Should be worn over recent cuts to stop blood transferring to food and so they can be seen if they fall off

**Don't cough or Sneeze Over Food**  
 This could transfer bacteria. Sneeze into a tissue or your elbow.

**Remove Watches and Jewellery**  
 These can trap dirt and bacteria

### The Cooker



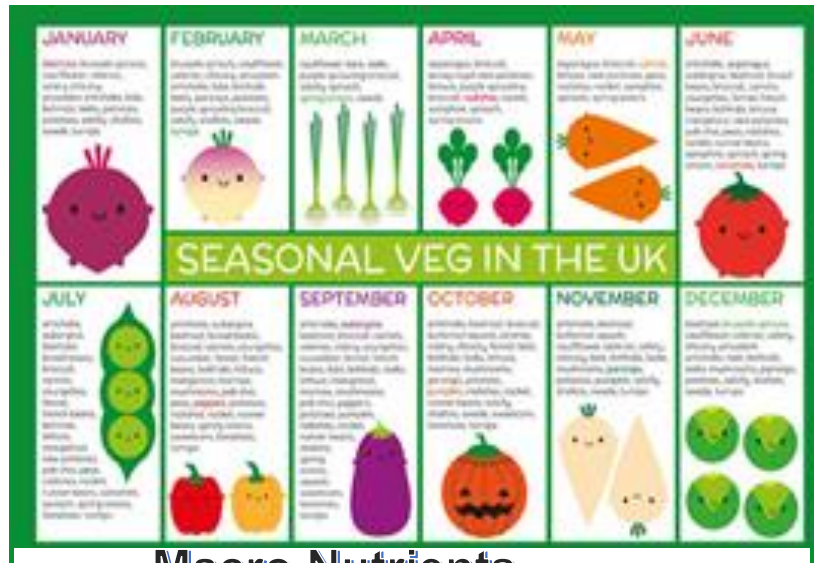
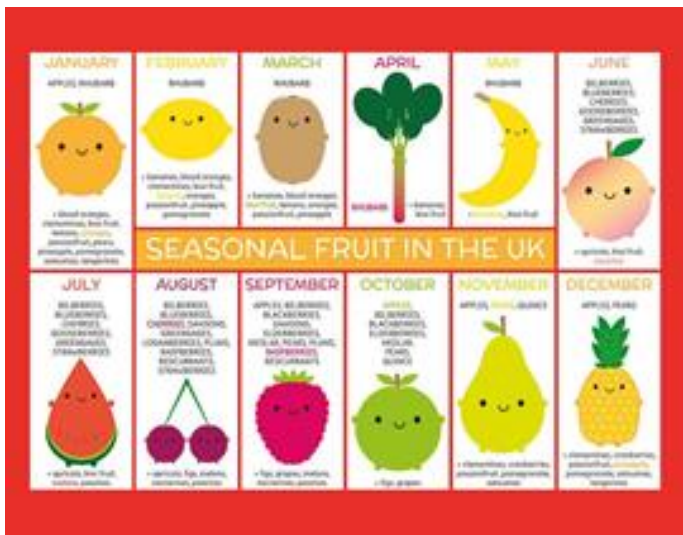
**Understand the 4 C's Concept**

- C - Good Hygiene practice prevents **Cross Contamination**
- C - Effective **Cleaning** removes harmful bacteria and stops them spreading
- C - Effective **Chilling** prevents harmful bacteria multiplying
- C - Thorough **Cooking** kills bacteria

### Safe Cutting Techniques

**Bridge Hold**      **Claw Hold**





### Why are Foods in Season Better?

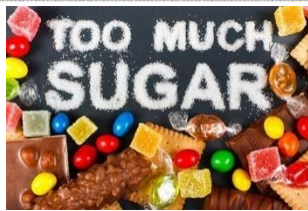
1. Less impact on the environment as they travel less distance.
2. Likely to be cheaper as they are plentiful.
3. Higher in nutrients as fresher
4. Taste better as fresher.
5. Support local growers

### FOOD MILES

WHAT ARE THEY AND HOW DO THEY AFFECT OUR WORLD?



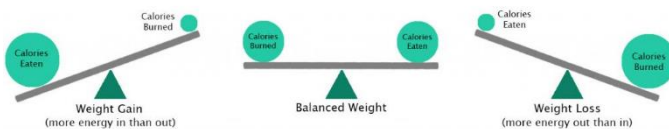
Excess sugar can increase the risk of developing



Sugar: maximum daily amounts		
4-6 years	7-10 years	11+ years
5 cubes (19 grams)	6 cubes (24 grams)	7 cubes (30 grams)
*1 cube = 4g sugar		



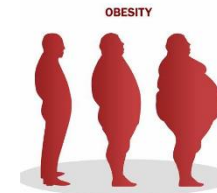
### The Energy Balance



### Macro Nutrients

Macro Nutrient	Role in the Body	Food Examples
<b>Carbohydrate</b>	3 types <ul style="list-style-type: none"> <li>• Sugar</li> <li>• Starch</li> <li>• Fibre</li> </ul> Carbohydrate is the main source of energy. Fibre aids a healthy digestive system (helps us poo)	Sugar – sweets, cakes, biscuits  Starch – bread, rice, pasta, potatoes  Fibre – found in wholemeal bread, brown rice, pasta and in fruit and vegetables.
<b>Protein</b>	Needed for growth, repair, maintenance and any excess will be used for energy	Meat, poultry, beans, eggs, lentils, fish, tofu
<b>Fat</b>	High in energy (calories). Keeps us warm, protects soft organs and provides vitamins A and D	Butter, vegetable oils (e.g. sunflower, olive, corn etc), lard, dripping, chicken fat, duck fat

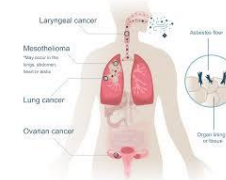
Excess fat can increase the risk of developing



Bad breath



Heart attacks



Some cancers



High blood pressure



## Micro Nutrients

Vitamin	Role in the body	Food examples
<b>A</b>	Helps to keep the eyes healthy and strengthen the immune system.	Dark green leafy vegetables, carrots, liver
<b>B</b>	Helps to release the energy from the food we eat.	Bread, milk, cereals, fish, meat
<b>C</b>	Help with skin healing and healthy skin. Help with the absorption of Iron.	Fresh fruit, broccoli, tomatoes
<b>D</b>	Important for absorbing calcium and help with healthy bone structure.	Oily fish, eggs, butter, Sunshine
<b>Vitamins -Help to keep our immune system up and help our body to stay healthy – they important for body maintenance.</b>		
Mineral	Role in the body	Food Examples
<b>Calcium</b>	Important for strong teeth and bones. It also helps with blood clotting.	Milk, yoghurt, soya, dark green leafy vegetables
<b>Iron</b>	Needed for red blood cells which help to transport oxygen around the body.	Nuts, whole grains, dark green leafy vegetables, meat



When enzymes in the fruit come into contact with oxygen in the air (e.g. when the fruit is cut) a brown pigment called melanin is formed. This is called enzymatic browning.

To prevent this citrus juice e.g. lemon juice containing citric acid helps slow down this process.