

# Year 8 - Food and Nutrition



## Key Vocabulary

High Risk Food	A food that is an ideal medium for the growth of bacteria or microorganisms.
4C of Food Hygiene	Cooking, cleaning, chilling and cross contamination.
Food Poisoning	An illness caused by eating contaminated food.
Food Poisoning Bacteria	Micro-organisms in food which can cause illness.
Personal Hygiene	Covers handwashing, clothing, fitness for work and training
Macronutrients	Are needed in large amounts by the body and are called protein, fats and carbohydrates
Micronutrients	Are needed by the body in smaller amounts and are called vitamins and minerals.
Allergens	Substances or foods that may cause an allergic reaction.

## Key Skills



Planning



Making



Evaluation

## Making & Skills

- Stir fry- Using a wok/ Stir frying
- Upside Down Cake – Creaming Method.
- Cheesecake –Checking for readiness, layering & setting.
- Scones- Shaping, glazing rubbing in method.
- American Pancakes – Portion control/use of raising agents/batter making
- Whisked Sponge– Use of the oven/electric whisk /presentation
- Bread – dough making
- Tikka Naan –marinading/portion control

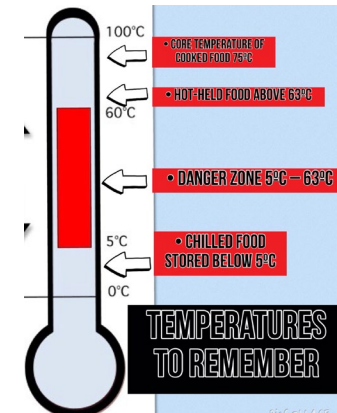
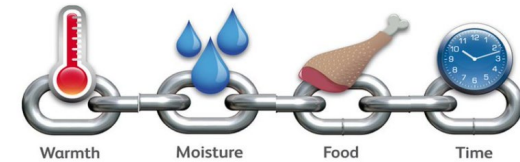


## Planning

- Food Poisoning – 4 conditions bacteria need to grow: Food, time, warmth and moisture.
- Cross Contamination occurs when bacteria or traces of allergens get into products accidentally.
- Food Storage: to prevent or reduce the speed at which bacteria multiply it is important to keep hot food hot, cold food cold and keep prepared food out of the danger zone.
- Key Temperatures: 100oC boiling point of water, reheat and cook food to 75oC or above, danger zone 5oC- 63oC, fridge temperature 0oC – 5oC and freezer temperature -18oC

## Food Poisoning Chain

For bacteria to grow they need:



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## Nutrition & Health

- What's on a food label: **name** of the product; **date** of durability, **instructions** for use; **origin**; **manufacturer's name & address**; **nutrients**; **storage**; net **quantity**; **allergens** and **ingredients**.
- Nutritional Labelling: information on nutrients must be listed in this order: energy; fat; saturates; carbohydrates; sugars; fibre (not required by law); protein, salt; vitamins & minerals.
- Traffic light system fat, saturated fat, salt & sugar are labelled on a food product in either green, amber or red.
- 14 common food allergens: celery, cereals containing gluten (such as wheat, barley and oats), crustaceans, eggs, fish, lupin, milk, molluscs, mustard, peanuts, sesame, soy beans, sulphur dioxide & sulphites and tree nuts.
- Macro Nutrients: needed in large amounts by the body and are called protein, fats and carbohydrates
- Micronutrients: needed by the body in smaller amounts and are called vitamins and minerals.

## Nutrition Facts

Serving Size 1 Patty, 5.33 oz (151g)  
Servings Per Container 2

Amount Per Serving	
Calories 240	Calories from Fat 110
% Daily Value*	
<b>Total Fat</b> 12g	<b>18%</b>
Saturated Fat 6g	30%
Trans Fat 0g	
Polyunsaturated Fat 0g	
Monounsaturated Fat 5g	
<b>Cholesterol</b> 90mg	<b>30%</b>
<b>Sodium</b> 115mg	<b>5%</b>
<b>Total Carbohydrate</b> 0g	<b>0%</b>
Dietary Fiber 0g	0%
Sugars 0g	
<b>Protein</b> 30g	<b>60%</b>
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 20%

\* Percent Daily Values are based on a 2,000 calorie diet.

Each serving (150g) contains


Energy	Fat	Saturates	Sugars	Salt
1046kJ 250kcal	3.0g LOW	1.3g LOW	34g HIGH	0.9g MED
13%	4%	7%	38%	15%

of an adult's reference intake

Typical values (as sold) per 100g: 697kJ/ 167kcal

# 14 Allergens

Coming to a food label near you



Food Standards Agency  
food.gov.uk

The way allergens are labelled on prepacked foods is changing because of new regulations. The Food Information Regulation, which comes into force in December 2014, introduces a requirement that food businesses must provide information about the allergenic ingredients used in any food they sell or provide.

There are 14 major allergens which need to be mentioned (either on a label or through provided information such as menus) when they are used as ingredients in a food. Here are the allergens, and some examples of where they can be found:

1

**Celery**  
This includes celery stalks, leaves, seeds and the root called celeriac. You can find celery in celery cut, celeriac, some meat products, soups and stock cubes.

2

**Cereals containing gluten**  
Wheat (such as spelt and Khosrov wheat/Kanari), rye, barley and oats are often found in foods containing flour, such as some types of baking powder, buns, bread, waffles, bread cubes, croissants, meat products, pasta, party cakes, soups and fried foods which are dusted with flour.

3

**Crustaceans**  
Cobbs, lobsters, prawns and crabs are crustaceans. Shrimp paste, often used in Thai and south-east Asian curries or salads, is an ingredient to look out for.

4

**Eggs**  
Eggs are often found in cakes, some meat products, mayonnaise, mousses, pasta, quiche, sauces and pastries or foods brushed or glazed with egg.

5

**Fish**  
You will find this in some fish cakes, pizzas, relishes, salad dressings, stock cubes and Worcestershire sauce.

6

**Lupin**  
Yes, lupin is a flower, but it's also found in flour! Lupin flour and seeds can be used in some types of bread, pastries and even in pasta.

7

**Milk**  
Milk is a common ingredient in butter, cheese, cream, milk powders and yoghurt. It can also be found in foods brushed or glazed with milk, and in powdered soups and sauces.

8

**Molluscs**  
These include mussels, land snails, squid and whelks, but can also be commonly found in oyster sauce or as an ingredient in fish chews.

9

**Mustard**  
Liquid mustard, mustard powder and mustard seeds fall into this category. This ingredient can also be found in breads, curries, marinades, meat products, salad dressings, soups and soups.

10

**Nuts**  
Not to be mistaken with peanuts (which are actually a legume and grow underground), this ingredient refers to nuts which grow on trees, like cashew nuts, almonds and hazelnuts. You can find nuts in breads, biscuits, crackers, desserts, nut powders (often used in Asian curries), confectionery, ice cream, marzipan (ground almonds), nut oils and sauces.

11

**Peanuts**  
Peanuts are actually a legume and grow underground, which is why it's sometimes called a groundnut. Peanuts are often used as an ingredient in biscuits, cakes, curries, desserts, sauces (such as satay sauce), as well as in groundnut oil and peanut flour.

12

**Sesame seeds**  
These seeds can often be found in bread (especially in hamburger buns for example), breadsticks, buns, soups, sesame oil and tahini. They are sometimes toasted and used in salads.

13

**Soya**  
Often found in bean curd, edamame beans, miso paste, textured soya protein, soya flour or tofu, soya is a staple ingredient in oriental food. It can also be found in desserts, ice cream, meat products, soups and vegetable products.

14

**Sulphur dioxide (sometimes known as sulphites)**  
This is an ingredient often used in dried fruit (such as raisins, dried apricots and prunes). You might also find it in meat products, soft drinks, vegetables as well as in wine and beer. If you have asthma, you have a higher risk of developing a reaction to sulphur dioxide.

For more information, visit [food.gov.uk/allergy](http://food.gov.uk/allergy) or [fhs.uk/conditions/allergies](http://fhs.uk/conditions/allergies)

Sign up to our allergy alerts on [food.gov.uk/news](http://food.gov.uk/news) or follow [#Foodgovuk](https://www.facebook.com/foodgovuk) on Twitter and Facebook

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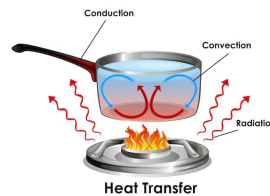
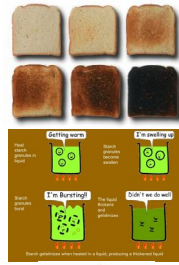


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## Food Science

- Dextrinization: Breaking up of the starch molecules into smaller groups of glucose molecules when exposed to dry heat, e.g. toast
- Gelatinisation: when starches are heated with liquid, they swell and will thicken. This is a key process in sauce making.
- Enzymic Browning: oxidation reaction that takes place in some foods, mostly fruit and vegetables, causing the food to turn brown.
- Maillard reaction: is the process that is responsible for the golden-brown colour and crust that forms on well-grilled meat.
- Heat transfer: heat energy can flow by conduction; convection or radiation. It always flow from a hot source to a cold source.



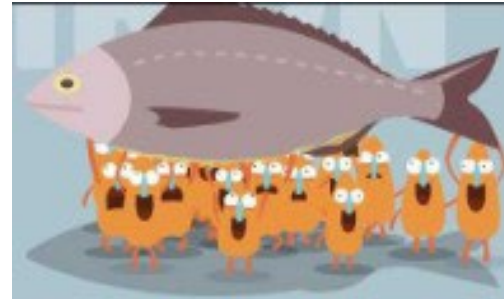
## Sustainability

### Factors affecting food choice

- Budget: the amount of money available to buy food.
- Seasonality: foods that are only available at certain times of the year.
- Sustainability: meets the needs of the present, without making it difficult for future generations to meet their own needs.
- Food Preservation: processes that allow foods to last longer e.g., drying, canning, chilling & freezing

## Taking it Further

Macro & Micronutrients video



[https://www.youtube.com/watch?v=zl2XR1a\\_4DU&t=2s](https://www.youtube.com/watch?v=zl2XR1a_4DU&t=2s)

## Food Safety



<https://www.youtube.com/watch?v=flxmB8NKMzE>

## Food Labelling



<https://www.youtube.com/watch?v=bLKOAsikD-Q>

## Learning Checklist

- I can use a variety of practical skills to make high quality outcomes.
- I can name the four conditions that bacteria need to grow
- I can explain how to prevent cross contamination.
- I can name 5 key temperatures for food storage and cooking.
- I can explain the traffic light food label
- I can name and explain the main functions of the macronutrients
- I can name the two groups of micronutrients and explain the functions of Vitamin A & C, calcium and iron.
- I can explain a range of food science turns.