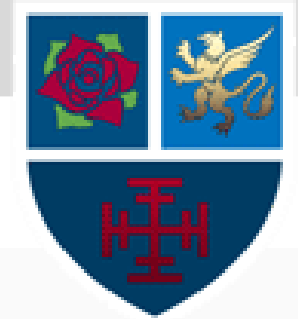


# Design Technology - Year 8 Food Homework Booklet



Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

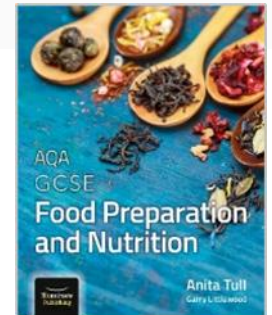
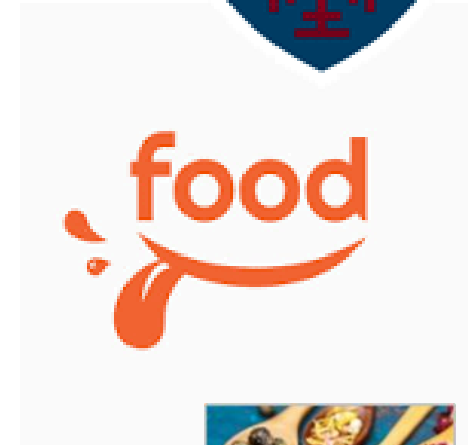
Form & Group: \_\_\_\_\_

- This book is your property, if you lose it you must buy a new one
- Bring it to each lesson

I will get my homework marked at the start of each lesson.

For my technical knowledge I need to know:

- How to spell the word correctly
- What the meaning is
- How and where it is used



Online textbook - <http://www.illuminate.digital/aqafood/>  
Student Username: STURTON3 Student Password: STUDENT3

# Homework 1: Health and Safety

Question	Answer
<p>1. There are many different pathogenic bacteria, moulds and yeasts.</p> <p>Which one of the above commonly causes food poisoning?</p>	
<p>2. List 4 symptoms of food poisoning?</p>	
<p>3. Who are the most vulnerable to food poisoning? Name 3 groups.</p>	

..... Marks/8

# Potatoes - The UK's favourite staple food – Homework 2

Read and highlight key facts about potatoes, then answer the questions below.

1. Who cultivated the first potatoes?

2. Who was Sir Walter Raleigh and what is his link to potatoes?

3. With regards to potatoes, what happened in 1840? How did it impact the Irish?

4. What year did NASA grow a potato in space?

5. Why did NASA grow a potato in space?

The potato is the world's fourth largest food crop, following rice, wheat, and maize.

The Inca Indians in Peru were the first to cultivate potatoes around 8,000 BC to 5,000 B.C.

In 1536 the Spanish conquered Peru, discovered the flavors of the potato, and carried them to Europe. Before the end of the sixteenth century, families of Basque sailors began to cultivate potatoes along the Biscay coast of northern Spain.

Sir Walter Raleigh introduced potatoes to Ireland in 1589 on the 40,000 acres of land near Cork.

It took nearly four decades for the potato to spread to the rest of Europe.

Eventually, agriculturalists in Europe found potatoes easier to grow and cultivate than other staple crops, such as wheat and oats.

In the 1840s a major outbreak of potato blight, a plant disease, swept through Europe, wiping out the potato crop in many countries.

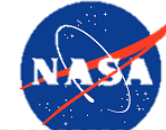
The Irish working class lived largely on potatoes and when the blight reached Ireland, their main staple food disappeared.

This famine left many poverty-stricken families with no choice but to struggle to survive or emigrate out of Ireland.

Over the course of the famine, almost one million people died from starvation or disease. Another one million people left Ireland, mostly for Canada and the United States.



Sir Walter Raleigh



In October 1995, the potato became the first vegetable to be grown in space. NASA created the technology with the goal of feeding astronauts on long space voyages, and eventually, feeding future space colonies.

Completed

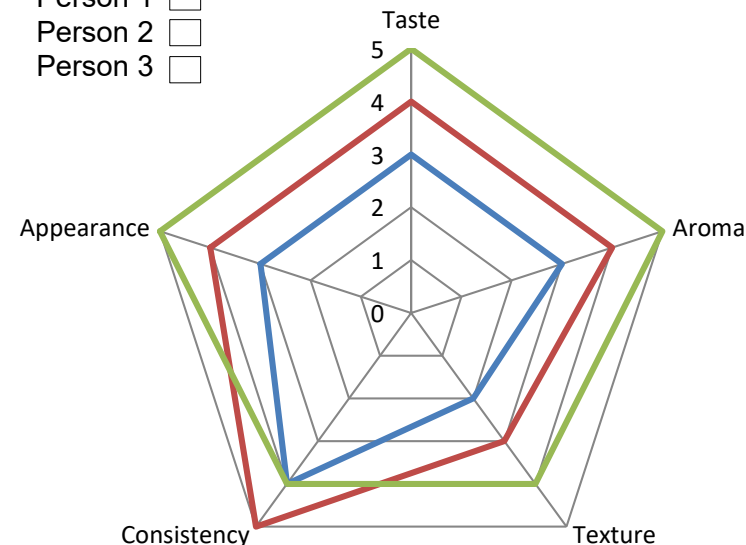
# Word Banks

Use the word banks and example of how to complete a star profile to help develop your evaluation vocabulary.

Taste	Aroma	Texture	Consistency	Appearance
Sweet	Floral	Brittle	Lumpy	Heavy
Cool	Rotten	Rubbery	Smooth	Flat
Bitter	Perfumed	Short	Coarse	Fizzy
Zesty	Acrid	Foamy	Silky	Crystalline
Warm	Musty	Juicy	Gritty	Wet
Hot	Fragrant	Firm	Even	Cuboid
Tangy	Scented	Stodgy	Odd	Fragile
Sour	Pungent	Bubbly	Runny	Dull
Sharp	Spicy	Sandy	Thick	Crunchy
Rich	Burnt	Tacky	Stodgy	Fragile
Salty	Sweet	Tender	Heavy	Dull
Fatty		Waxy	Crunchy	Greasy
Sharp		Open	Dry	Hot
Sweet		Soft	Dull	Moist
Tasty		Chewy	Shiny	Smooth
Spicy		Crisp	Soggy	Soggy
		Firm		Burnt

• How to fill out a star profile correctly

Person 1   
 Person 2   
 Person 3



**Key**

5 = Excellent  
 4 = Very Good  
 3 = Good  
 2 = Average  
 1 = Poor

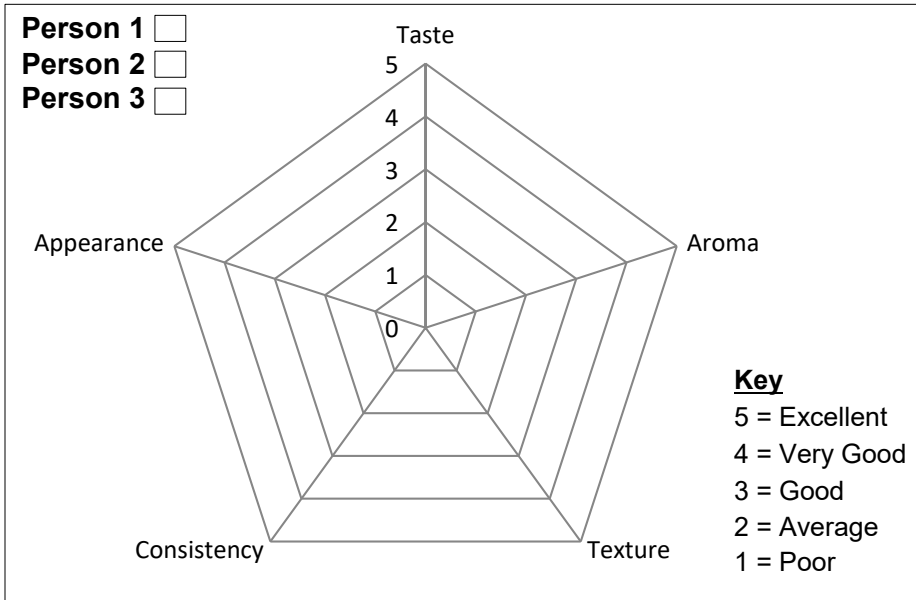
- **Taste:** The tongue detects four basic tastes – sweet, sour, salt and bitter. Tastes may be described by association, such as meaty, minty or fruity.
- **Texture:** This is assessed by touch. When food is placed in the mouth, the surface of the tongue and other sensitive skin reacts to the feel. Different sensations are felt as food is chewed.
- **Aroma:** The nose detects smells released from food.
- **Appearance:** A products size, shape, colour and surface texture can be described

# Evaluation: Potatas Bravas – Homework 3



Evaluate your practical dish by completing all of the points below. Use the word banks and function of ingredient sheets in the front of your books to help.

- Ask 3 people who tasted your dish to analyse it.



- What are the ingredients and their functions in your dish?

Ingredients	Function of Ingredients

- Using your word banks, list different adjectives to describe your dish.

Taste	Aroma	Texture	Consistency	Appearance

- List the skills demonstrated

<u>Skills demonstrated</u>

# Danger Zone – Homework 4

Review your learning and answer the questions, some of the information you may need is on the thermometer below.

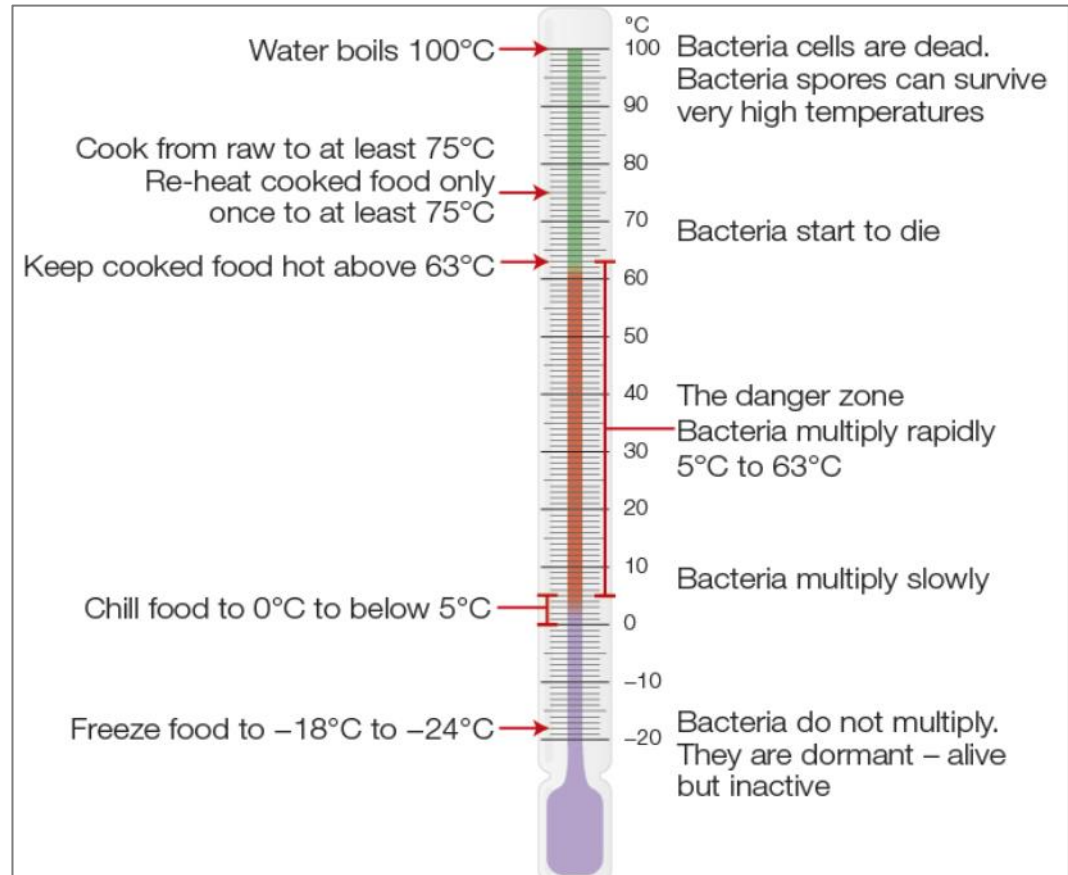
1. What is the temperature range for the danger zone?

2. What happens in the danger zone?

3. What temperature should a fridge be? Why?

4. What temperature should a freezer be?

5. What does dormant mean?

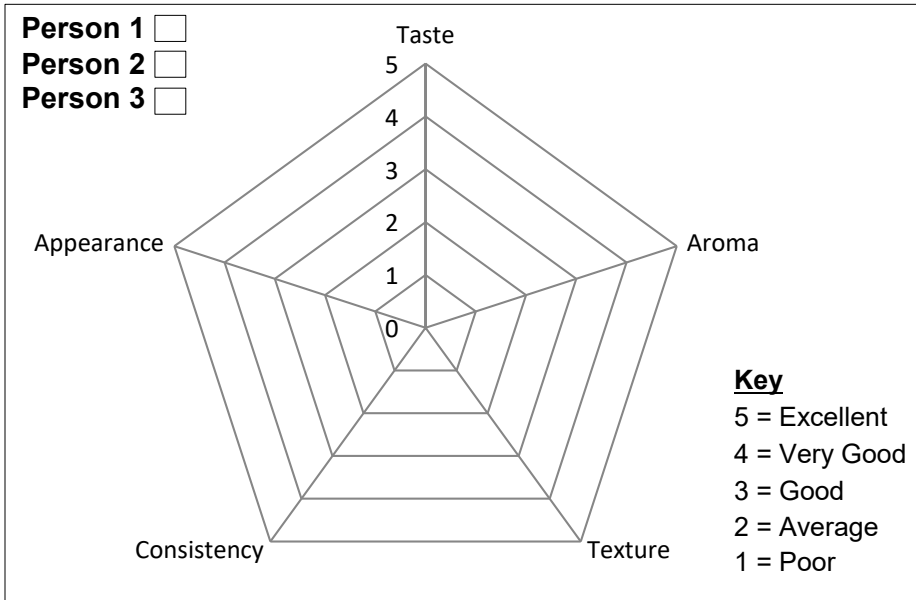


# Evaluation: Bread Making Homework 5



Evaluate your practical dish by completing all of the points below. Use the word banks and function of ingredient sheets in the front of your books to help.

- Ask 3 people who tasted your dish to analyse it.



- What are the ingredients and their functions in your dish?

Ingredients	Function of Ingredients

- Using your word banks, list different adjectives to describe your dish.

Taste	Aroma	Texture	Consistency	Appearance

- List the skills demonstrated

<u>Skills demonstrated</u>



### Food Poisoning

Food poisoning is a very common and unpleasant illness, it can lead to some serious health complications in some people.

Micro-Organisms that make food unsafe to eat and cause food poisoning are called pathogens.

There are many different pathogenic bacteria, moulds and yeasts.

Bacteria most commonly cause food poisoning.



***The most Vulnerable are:***  
Food poisoning is dangerous for babies and young children, pregnant women, elderly people and those who have a weak immune system

Most pathogenic bacteria cause food poisoning inside the digestive system. Symptoms include:

The symptoms of food poisoning can include:



- bad abdominal pain (stomach ache)
- diarrhoea



- nausea (feeling sick)
- vomiting (being sick)



- headache
- dizziness



- a raised body temperature
- feeling cold and shivery



# Key Term Re-Cap – Homework 6



Create mini revision blocks with the following **key terms**. Using your prior knowledge to fill in the definitions and examples.

<b>Bacteria</b>
<u>Definition</u>
<u>Example</u>

<b>Cross Contamination</b>
<u>Definition</u>
<u>Example</u>

<b>Pathogenic Bacteria</b>
<u>Definition</u>
<u>Example</u>

<b>Non-Pathogenic Bacteria</b>
<u>Definition</u>
<u>Example</u>

<b>Danger Zone</b>
<u>Definition</u>
<u>Example</u>

## **Key Terms**

- Bacteria
- Cross-Contamination
- Pathogenic Bacteria
- Non-Pathogenic Bacteria
- Danger Zone

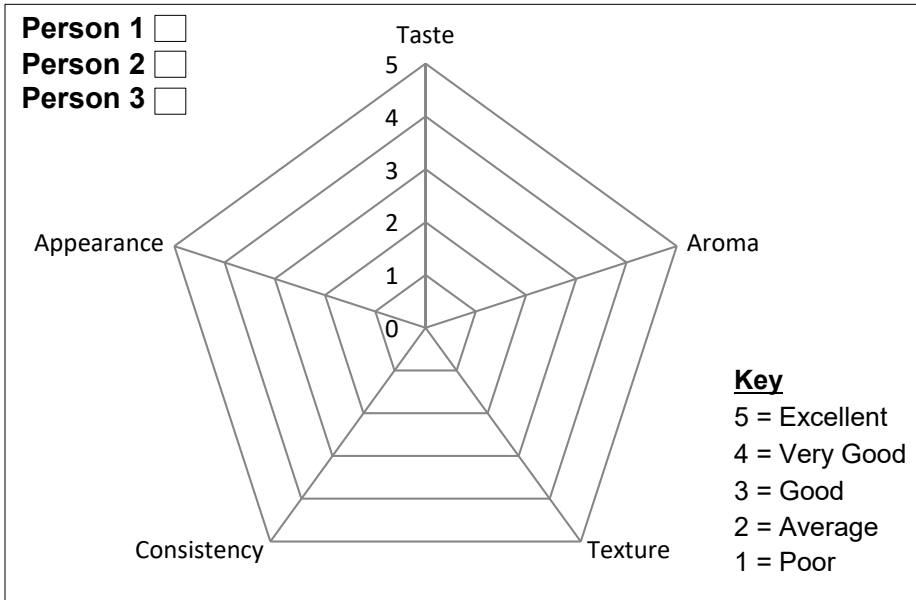
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# Evaluation: Mac & Cheese - Homework 7



Evaluate your practical dish by completing all of the points below. Use the word banks and function of ingredient sheets in the front of your books to help.

- Ask 3 people who tasted your dish to analyse it.



- What are the ingredients and their functions in your dish?

Ingredients	Function of Ingredients

- Using your word banks, list different adjectives to describe your dish.

Taste	Aroma	Texture	Consistency	Appearance

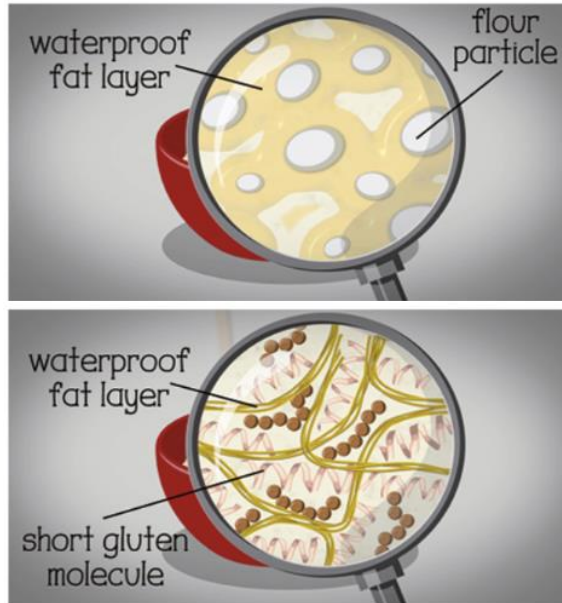
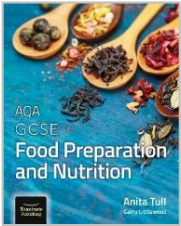
- List the skills demonstrated

<u>Skills demonstrated</u>

# Pastry – Homework 8

Review your learning and answer the questions, some of the information you may need is on the thermometer below.

Extra information and videos can be found in the online textbook on pages 130-131



Fats are rubbed into flour to make pastry



The fat coats the flour particles with a waterproof layer



When water is added, the gluten strands can only form short lengths because of the waterproof fat



The texture of the pastry is 'short' and tender

Fill in the missing words in the paragraphs below.

## Shortening

*Shortcrust pastry, .....and ..... rely on fat to give them their characteristic ..... texture.*

*The ..... coats the flour particles and prevents them from absorbing ..... . This reduces the formation of ..... development, which would cause the dough to become*

*..... Fats such as pure vegetable fats are suitable for shortening because of their ..... water content. There are distinctive colours associated with the type of fat used, for example, butter produces a .....colour*

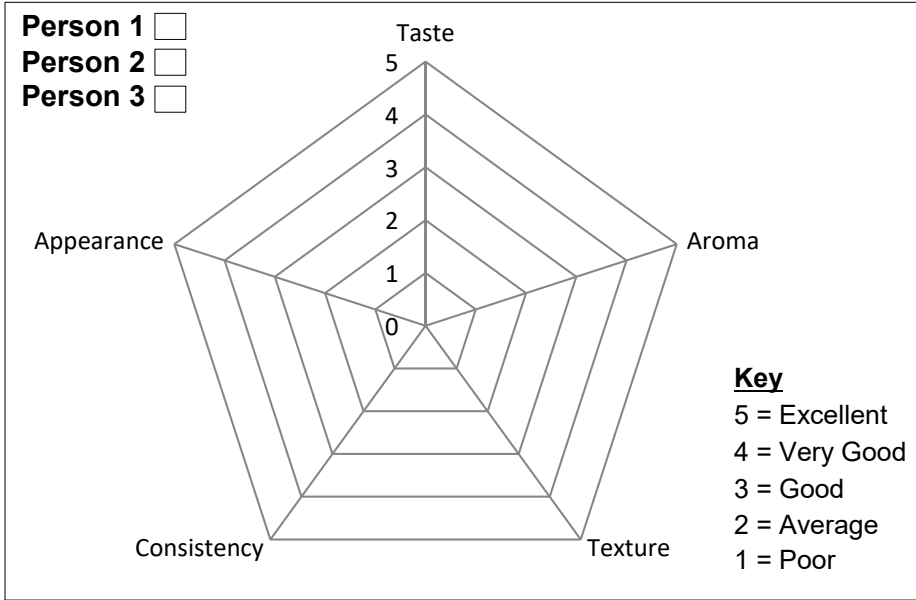
Completed

# Evaluation: Pie - Homework 9



Evaluate your practical dish by completing all of the points below. Use the word banks and function of ingredient sheets in the front of your books to help.

- Ask 3 people who tasted your dish to analyse it.



- What are the ingredients and their functions in your dish?

Ingredients	Function of Ingredients

- Using your word banks, list different adjectives to describe your dish.

Taste	Aroma	Texture	Consistency	Appearance

- List the skills demonstrated

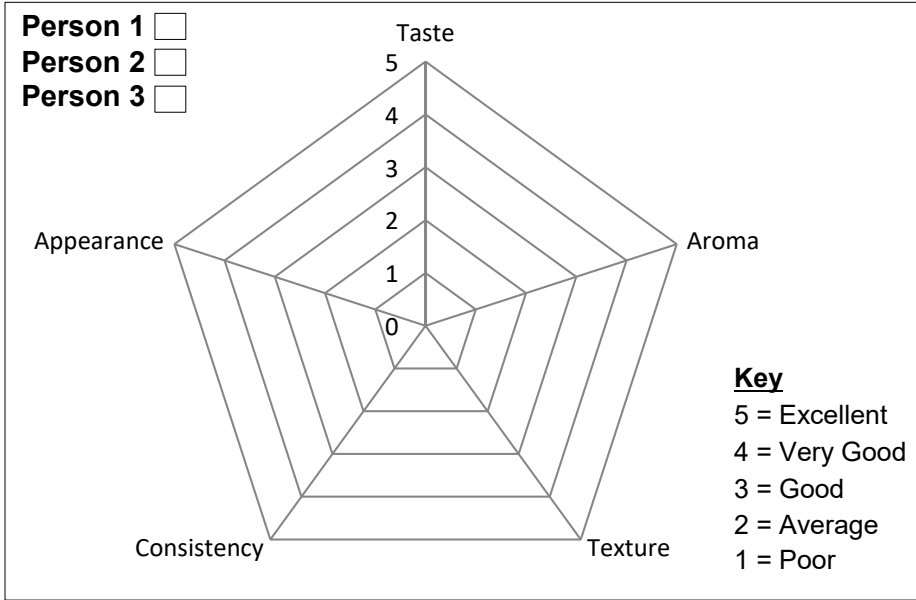
<u>Skills demonstrated</u>

# Evaluation: Fajitas/Chicken Tikka Masala/Pizza - Homework 10



Evaluate your practical dish by completing all of the points below. Use the word banks and function of ingredient sheets in the front of your books to help.

- Ask 3 people who tasted your dish to analyse it.



- What are the ingredients and their functions in your dish?

Ingredients	Function of Ingredients

- Using your word banks, list different adjectives to describe your dish.

Taste	Aroma	Texture	Consistency	Appearance

- List the skills demonstrated

<u>Skills demonstrated</u>

## Year 8 Knowledge Organiser

<b>Hygiene</b>	To prepare food in a clean way to stop food spoilage or poisoning occurring
<b>Cross contamination</b>	The transfer of food spoilage/poisoning from one food to another
<b>Food Provenance</b>	Where foods and ingredients originally come from
<b>Food security</b>	The ability of people to buy sufficient safe, nutritious and affordable food
<b>Sustainability</b>	Producing food in a way that can be maintained over a long period of time and protects the environment
<b>Food Miles</b>	More food is being transported by air & driven by lorries. This creates food miles, carbon footprint, food waste

### Cheese Making

Curds are separated from the liquid whey by coagulating milk, curds are then used in the cheese making process

Rennet is used to help separate the milk into curds and whey and to help set the cheese

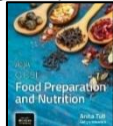
When cheese is made, there are two types of micro-organisms used – bacteria and moulds

Non-pathogenic bacteria does not cause food poisoning and is used in a variety of food products such as cheese.

Milk is pasteurised, this sterilisation process starts to irradiate pathogenic bacteria, heating to 72°C makes milk safe to drink

Online textbook  
<http://www.illuminate.digital/aqafood/>

Student Username:  
 STURTON3  
 Student Password:  
 STUDENT3



Chopping Board Coding

Red - Raw meat
Blue - Raw fish
Yellow - Cooked meat
Green - Salad and fruit
Brown - Vegetables
White - Bakery and dairy

## Sustainability & Environment



Fairtrade promotes better prices, decent working conditions, local sustainability, and fair terms of trade for farmers and workers in developing countries.

Red Tractor covers: Animal welfare, food safety, traceability and environmental protection. Experts check that food is farmed and prepared to a good standard.



- Fairtrade ● Red Tractor ● Soil Association ● Freedom food
- Carbon footprint ● Sustainability ● Food miles ● Animal welfare



### Packaging

Food labels are used to show different things, they protect the consumer and manufacturer by giving certain information by law:

- Name and description of food product
- Ingredients list ● weight or volume ● Storage
- Name and address of food manufacturer distributor ● Place of origin of food
- How to prepare and cook the product ● Allergy warnings ● Additives information ● Shelf-life, use-by and best before dates

### Bacterial Contamination

- Micro-Organisms that make food unsafe to eat and cause food poisoning are called pathogens.
- Danger zone 5°C to 63°C
- Fridge temp: 0°C to 5°C
- Freezer temp: -18°C to -24°C
- Re-heat/ cook raw food to at least 75°C to kill

#### Bacteria

Pathogens, Non-pathogens, Danger zone, Bacteria

## Wheat into Flour

### Stage 1: Harvest

When the wheat grains ripen, combine harvesters are used to cut the plants and separate the grains from the rest of the plant.

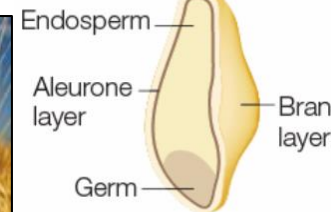
### Stage 2: Cleaning and storage

The wheat grains are then cleaned and stored until they are ready to be milled.

### Stage 3: Milling the grain to produce flour

The wheat grains are then cleaned and stored until they are ready to be milled.

The main nutrients are held under the aleurone and bran layers. The germ is responsible for the reproduction of the grain if it were to be planted and grown again.



### Food Spoilage

Enzymes cause foods like fruit to ripen, change the texture, alter the flavour and alter the smell

Yeast targets foods that contain a high amount of sugar. They settle on food, grow, ferment the sugar e.g. in fruit.

Enzymic browning can be prevented by cooking, putting the food into cold water, adding acid like lemon or orange juice and blanching

