

Y9 Food and Nutrition

5 Week Rotation

Online Learning

Lesson 1

Introduction to context sheet – Purpose of eggs in our daily diet.

Recipes - booklet

Allergens – what are they?

Homework – set each week.

Knowledge check - SMH



Year 9

Design and Technology - Food and Nutrition

KNOWLEDGE CHECK

KNOWLEDGE CHECK

CONTEXT : To understand the functions of eggs and how they can be used in different ways.

BRIEF Eggs are an everyday cheap protein. Consider different methods of cooking and make 4 different dishes.

CORE KNOWLEDGE

- To develop the skills and techniques learnt in Yr7 +8.
- Understanding the functions of eggs.
- Understanding specific terminology relating to eggs.
- Understanding the properties of eggs.

How to tell if an egg is fresh.

EFFORT

RESEARCHING AND MAKING

EXCELLENT

RESEARCH Read, understand and explain the different properties of eggs.

GOOD

MAKE Use appropriate techniques/skills in preparation of commodities within 4 egg based dishes.

COASTING

EVALUATE Complete the booklet and provide pictures of the completed dishes.

SERIOUS CONCERN

Skills and techniques covered

refrigeration	cracking an egg	frying	combining	baking	timing
	coating	flouring	seasoning		organisation
binding	separating	melting	whisking	cut and fold	measuring
	bain marie		following a recipe		writing a timeplan
bridge and claw	H&S				



EGGS



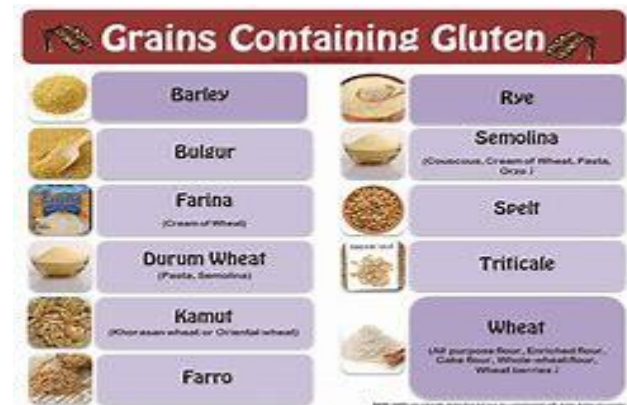
Allergens & Intolerances

Different foods can affect and cause illnesses, rashes, swelling in people. The slide before shows the 14 most common allergens in this country. That does not mean that people cannot be allergic to other ingredients.

It is important to understand what the basic raw ingredients are that make up everyday basic foods.

Bread is commonly made using wheat flour. Wheat flour contains **gluten** – the **protein** that binds the flour together.

There are other grains that also contain Gluten; so people that have a gluten allergy or intolerance should avoid all foods that contain these grains



Like in the previous slide, any allergen may be present in any dish. So it is really important to understand what all the 'basic' ingredients are and how we can keep people safe. Below are some common examples:

- Lactose intolerant – cannot consume ANY DAIRY products made from **animal milk**.
- Coeliac – cannot consume ANY products containing **gluten**.
- Egg free – cannot consume products containing ANY type of **egg**.
- Nut free – cannot consume ANY products containing **Nuts or Peanuts**.

How to complete the allergen page?

1. Look at the first recipe. Write this in the first blank box of the L.H column of the allergen page.
2. Go through each ingredient and check whether it is a raw ingredient or product. If it is a **raw ingredient** (potato, sweetcorn, oats) you will know straight away if it is on the allergen list. If it is a **made product** (bread, jam, pasta) you will have to do some research and find out what the main ingredients are – then check against the allergen list.
3. If an allergen is present place a tick in the appropriate box. Leave all other boxes blank.
4. Repeat the whole process with the remaining recipes.

Lesson 2:



This week the practical is to make an omelette.

You have been provided with a standard recipe and a timeplan.

Timeplans provide all the extra information you might need if you've never made an omelette before. Full accurate ingredient list with attention to how to prepare each ingredient. Full equipment list so you can collect what you need before you start. Timing for each stage, Health and Safety tips throughout. Accurate temperature control so hopefully you won't burn it.

Notice the layout – make sure you understand it as you will have to create one when you make the chocolate mousse.

Omelette

Ingredients

2 eggs

1 tsp butter

Seasoning (salt, pepper, chives etc.)

Optional additional ingredients such as grated cheese, ham, cooked mushrooms or onions.

This is best eaten warm so we recommend you bring a suitable container and a fork to eat it at break or lunchtime.

Method

1. Crack the eggs into the jug and beat with the whisk until combined. Season with salt and pepper.
2. Heat the butter in a non-stick frying pan over a medium heat until the butter has melted and is foaming.
3. Pour the eggs into the pan, tilt the pan ever so slightly from one side to another to allow the eggs to swirl and cover the surface of the pan completely. Let the mixture cook for about 20 seconds then scrape from the edges towards the centre with a wooden spoon. Work your way around the pan, repeating this all the way.
4. Tilt the pan again to allow it to fill back up with the runny egg. Repeat once or twice more until the egg has just set.
5. At this point you can fill the omelette with whatever you like – some grated cheese, sliced ham, fresh herbs, sautéed mushrooms or smoked salmon all work well. Scatter the filling over the top of the omelette and fold gently in half with a fish slice. Slide onto your plate to serve.

Time	Order of Work	Special Points
9.30		Hair up, hands washed, apron on. Un-pack ingredients. Fill sink with hot, soapy water.
9.33		Collect equipment: - measuring jug, whisk, frying pan, wooden spoon.
9.35	Crack 2 eggs into a measuring jug and use a whisk to thoroughly mix together. Season with salt and pepper and mix again.	Don't leave the whisk in the jug as it may tip over.
9.38	Place a non-stick frying pan onto the hob and turn onto a medium heat.	Select an appropriate sized hob ring for the pan you are using. Make sure your
9.39	Add a tsp of butter to the hot pan and swirls around until the butter has melted and is foaming.	Do not let the butter turn brown as it will affect the taste and appearance of the omelette.
9.40	Pour the egg mixture into the buttery pan and tilt the pan around to coat with the egg. Allow to cook for 20 seconds.	The egg should be spread evenly around the pan.
9.41	Using a wooden spoon gently scrape the egg from the edge towards the centre of the pan. Work around the pan and tip the pan to fill the gaps with runny eggs.	Work quickly to ensure your omelette cooks evenly.
9.43	Repeat until the egg is just set.	The egg will still be soft on top, but not running when the pan is tilted.
9.45	Add any fillings such as grated cheese, torn ham, cooked mushroom or chopped chives. Sprinkle	Allow a minute to heat the filling. You may need to turn down the temperature.
9.46	Use a fish slice to fold the omelette in half and then slide onto a plate to serve.	The pan handle may be hot so make sure you use an oven glove.
9.48	Clear work area and wash all equipment. Dry up and pack away.	Sign here to show you have read to the bottom before the lesson...sneaky!

Many salad dressings are made with a mix of oil and vinegar. When they are shaken or whisked together, they will mix temporarily and then gradually separate back into 2 layers as shown here. In order to combine them permanently, as in mayonnaise, an EMUSIFIER needs to be added. In mayonnaise, this is an egg yolk. The yolk contains LECITHIN which is an emulsifier. This means it will bind oil and water (vinegar in this case) together.

For your theory work this week watch the following film clips and then complete the questions.

<https://www.youtube.com/watch?v=v28rxrAhP0k>

<https://www.youtube.com/watch?v=7I8GXmpKrVg>

Theory

1.What is an emulsion?

2.What is the function of an emulsifier?

3.Give an example of a natural emulsifier.

4.What is the name of the water loving end of an emulsifier molecule?

5.What is the name of the water hating end of an emulsifier molecule?

6.Give 3 examples of emulsions.

Lesson 3:



This week the practical is to make a bread and butter pudding. You can substitute ingredients e.g. adding cinnamon or a variety of dried fruits.

Instead of plain bread, chocolate pain au chocolate/chocolate brioche can be used. They still need to be sliced.

Any type of milk (e.g. semi-skimmed, oat, almond etc).

The cream can be taken out or an alternative used.

Bread and Butter Pudding

Ingredients

150ml full-fat milk
150ml double cream
2 whole large eggs
2 tbsp caster sugar
4 slices of stale bread
25g slightly salted butter, softened plus extra for greasing
40g mix sultanas and currants or other dried fruit
2 tsp brown sugar (optional)

REMEMBER A SUITABLE OVENPROOF DISH AND YOUR APRON

Method

1. Lightly butter your ovenproof dish .
2. Cut the crusts from the bread slices if they are hard, then butter one side of the bread and cut into triangles.
3. Lay half of the bread slices in the bottom of the dish so that they are slightly overlapping.
4. Sprinkle half of the dried fruit over the bread.
5. Layer the rest of the bread on top then sprinkle over the remaining fruit.
6. Whisk the eggs, milk, cream and the caster sugar in a jug until well combined. Add any spice flavourings and then pour over the bread and fruit. Sprinkle over the brown sugar if using.
7. Allow to soak in for a few minutes and then place in the oven for 20-25 minutes, or until the custard has set.

Top tips

You may wish to put the dish onto a baking tray when placing it in the oven .

Be creative and experiment by adding other dried fruits such as apricots or cranberries.

Add some orange or lemon zest, or even some marmalade for a bit of zing.

Try adding some cinnamon or nutmeg to your custard mixture. We can provide this in school.

This recipe is ideal for using up all sorts of bread products such as brioche, croissants, pain au chocolate, baguettes, hot cross buns etc. Just remember to adjust your flavourings accordingly!

Use the following questions to research the impact eggs can have on our health:

Where do eggs appear on the Eatwell Guide?

What are the main nutrients we get from eggs?

How do our bodies use these nutrients?

Are there any potential health concerns around egg consumption?

You should present facts, but don't just copy and paste! Using the information you find, you should reach a conclusion about the health implications of eating eggs.

Lesson 4:

This week's practical is scotch eggs. Don't forget to complete WWW/EBI for each dish.

Remember to take a photo of your dish to go into your books.



Scotch Eggs

Ingredients

4 hard-boiled eggs (a few days old are better than fresh)
2 eggs
6 fat sausages
2 tbsp flour
2 slices bread, made into fine breadcrumbs – stale bread works best
Optional – fresh herbs such as thyme or parsley,

REMEMBER A CONTAINER TO TAKE HOME IN AND YOUR APRON

Method

1. Pre-heat your oven to 200°C and line your baking tray with baking paper.
2. Crack the eggs onto a plate and whisk lightly.
3. Place the flour and breadcrumbs onto the other plates.
4. On your red board, use the sharp knife to slit open the sausages and remove the meat. Add any additional flavourings you may be adding and mix well. Divide the mixture into 4 equal portions.
5. Carefully peel the hard-boiled eggs.
6. With damp hands, take one portion of sausage meat and flatten to a disc.
7. Place one egg on the sausage meat and carefully shape the meat around, sealing with your fingers as you go. Smooth to form a ball and place back on your red board. Continue with the remaining 3 eggs. Wash your hands.
8. Organise your work area ready to start coating the scotch eggs; you will need flour, egg and breadcrumbs arranged in order.
9. You now need to allocate one hand as 'wet' and one as 'dry'.
10. With your 'wet' hand, place one ball into the flour. Swap hands, and use your dry hand to coat the ball with flour. Lift and place carefully into the egg mixture.
11. Swap hands again and use your 'wet' hand to coat the flour with egg. Carefully transfer to the breadcrumbs.
12. Swap hands again and use your 'dry' hand to coat with breadcrumbs. Lift out and place on your prepared baking tray. Repeat with remaining eggs.
13. Wash your hands and use oven gloves to transfer the scotch eggs to the oven. Bake for approximately 20 mins, or until golden brown and cooked through.
14. When your scotch eggs are cooked through, remove from the oven using oven gloves and leave to cool a little, then transfer to a tub to take home.

Theory

While we are working with eggs, we are going to think about how and where they are produced, and how the safety of eggs is ensured.

Produce a fact-file explaining the following...

1. What are the main production methods used in egg farming in the UK?
2. What are the main differences between these methods?
3. What is the "Lion Mark" and what does it mean? (quite a lot...!)
4. How can you tell if an egg is fresh?



Food Waste

Why is it important that we prevent food waste? Think about three areas in particular; sustainability, disposal and moral issues. Research food waste in the UK and create a fact-file showing how much is wasted, what sort of foods in particular are affected and then suggest some ways we could help prevent so much waste. Use the pictures below as prompts.



Chocolate Mousse

Ingredients

50g good quality dark or milk chocolate

1 egg, separated CAREFULLY

15g (1 tablespoon) caster sugar (if you are using dark chocolate)

REMEMBER YOUR APRON AND A SMALL AIRTIGHT CONTAINER

Method

1. Half fill a small pan of water and bring to the boil.
2. Break the chocolate into small pieces and place into a plastic bowl.
3. Reduce the pan to a gentle simmer and place the bowl over the pan MAKING SURE IT DOESN'T TOUCH THE WATER.
4. Stir occasionally until the chocolate has melted then remove from the heat and allow to cool slightly.
5. In a separate bowl whisk the egg white until it forms soft peaks. Add the sugar and whisk until dissolved. The white should not feel grainy and should not fall out of the bowl when tilted.
6. Stir the egg yolk into the chocolate. It may look a bit odd, but keep going!
7. Add one third of the whisked whites into the chocolate and mix well.
8. Gently fold in the remaining whites using a metal spoon in a figure of 8 motion.
9. Transfer to your container and gently tap on the work surface to remove air pockets.
10. Seal and store in the fridge until ready to eat.

FINAL REMINDERS!

- Don't forget to complete WWW/EBI for each of your dishes.
- Take a photo and print it off where possible. Stick photo into your books.
- Ensure the allergen page is complete for all the dishes you made.
- All homework must be dated and stuck/written into your books.
- Complete the final knowledge check on SMH.

Other websites you mind find useful

Vegan egg making.

<https://www.bing.com/videos/search?q=video+restaurant+making+vegan+egg&docid=608030325565096259&mid=CB5B410845B4AABA3CBECB5B410845B4AABA3CBE&view=detail&FORM=VIRE>

Emulsification.

<https://www.bing.com/videos/search?q=video+how+to+make+mayonnaise&docid=608026803645516723&mid=07A6B5D7C94D74E5BB2B07A6B5D7C94D74E5BB2B&view=detail&FORM=VIRE>

Farming.

<https://www.bing.com/videos/search?q=video+farming+production+of+eggs+uk&docid=608032387132295397&mid=A21A591D38385A723B23A21A591D38385A723B23&view=detail&FORM=VIRE>

Turning eggs into bouncy balls.

<https://www.bing.com/videos/search?q=video+egg+experiments+uk&&view=detail&mid=5F8256AC07343D85E8FE5F8256AC07343D85E8FE&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3Dvideo%2Begg%2Bexperiments%2Buk%26go%3DSearch%26qs%3Dds%26form%3DQBVR>