ear 7 Food Technology– Knowledge Organiser

Use the bridge and claw methods for cutting/chopping.

What are Nutrients?

lutrients are the building blocks that make up food and have pecific and important roles to play in the body. Some utrients provide energy while others are essential for rowth and maintenance of the body.

Macro Nutrient	Role in the body	Food Example
Carboh-ydrate	The main source of energy for the body.	Bread, rice, pasta, potatoes
Protein	Provides the body with growth and repair.	Meat, poultry, beans, eggs, lentils, tofu, fish
Fat	Provides the body with insulation and a small amount protects vital organs. Provides essential fatty acids for the body.	Butter, oil, cheese, cream, nuts, oily fish, crisps

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

Veighing and Measuring

or good results in most recipes, **accurate** weighing and neasuring is essential. When you are baking with flour, sugar nd liquids, you must measure accurately or your cooking ill be spoiled. If you weigh out too much sugar or too little aising agent, your cakes would not rise or you could spoil ne taste and/or texture.

ood can be weighed in **Grams (g)** and there are **1000g** in a **ilogram (kg)**. Liquid is measured in **Millilitres (ml)** or **litres.**

Vitamin	Role in the body	Food examples
A	Helps to keep the eyes healthy and strengthen the immune system.	Dark green leafy vegetables, carrots, liver
B	Helps to release the energy from the food we eat.	Bread, milk, cereals, fish, meat
C	Help with skin healing and healthy skin. Help with the absorption of Iron.	Fresh fruit, broccoli, tomatoes
D	Important for absorbing calcium and help with healthy bone structure.	Oily fish, eggs, butter, Sunshine

Vitamins -Help to keep our immune system up and help our body to stay healthy – they important for body maintenance.

Mineral	Role in the body	Food Examples
Calcium	Important for strong teeth and bones. It also helps with blood clotting.	Milk, yoghurt, soya, dark green leafy vegetables
Iron	Needed for red blood cells which help to transport oxygen around the body.	Nuts, whole grains, dark green leafy vegetables, meat, liver

Minerals- Help to keep our immune system up and help our body to stay healthy. Vitamins and minerals are Micronutrients.



8 tips for healthy eating

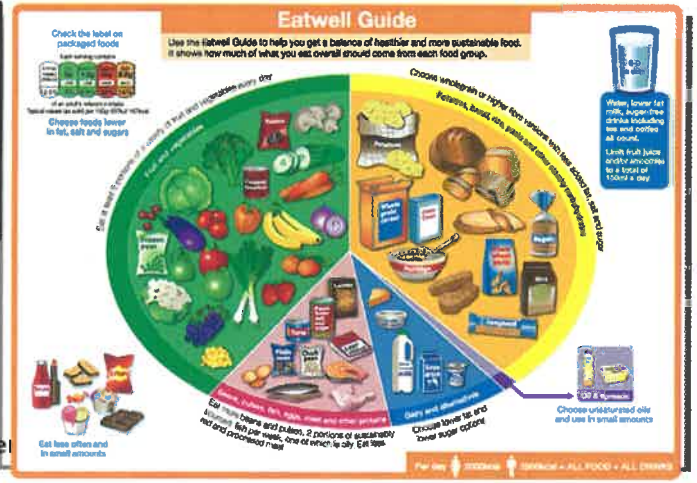
1) Base your meals on starchy foods
2) Eat lots of fruit and veg
3) Eat more fish
4) Cut down on saturated fat and sugar
5) Eat less salt
6) Get active and be a healthy weight
7) Drink plenty of water
8) Don't skip breakfast

Equipment: Weighing scales, knife, chopping board, saucepan, wooden spoon, tablespoon, teaspoon dessert spoon, mixing bowl, grater, pan-stand, baking tray, cooling rack, peeler, pastry brush, spatula.

The Cooker



Wider thinking / further



Knife skills - Chopping	Bridge hold, claw grip, slice, dice, julienne, baton's, meat and vegetable preparation
Organisation / tidying skills	Being able to work hygienically and safely to produce recipes and ensure all equipment, utensils and work area is fully clear and tidy. Teamwork and communication. Following personal hygiene rules.
Food safety	Using food probes for meat to check for safe temperatures (75C)
Weighing and measuring	Demonstrating accurate measurement of liquids and solids. Being able to use both manual and digital scales.
Use of equipment	Oven, hob, chopping boards, knives, sieve, mixing bowl, measuring jug/spoons
Making sauces	Reduced sauce, roux sauce
Working with ingredients	Using a range of ingredients from the Eatwell Guide to create recipes.
Test for readiness	Using a knife/skewer, finger or poke test, bite or visual colour check to establish whether a recipe or ingredient is ready.
Adapting recipes	Using a nutritional analysis program to analyse recipes. Making adaptations to make the recipe better suit the Eatwell Guide / healthy eating requirements.
Judge and manipulate sensory properties	Demonstrate how to taste and season during cooking. Self-evaluation of practical dishes made.
Food science	Learning how foods react with heat and acid and adapt accordingly.
Cooking methods	Using a variety of cooking methods including conduction, convection and radiation.
Food styling	Quality and creative presentation techniques. Using garnishes and decorative techniques where possible.

Name of the Nutrient	Sources	Function	
Carbohydrates (energy giving food)	Rice, potato, wheat, sugar	Provides energy	
Fats (energy giving food)	Butter, ghee, milk, cheese	Gives more energy compared to carbohydrates	
Vitamins and Minerals (protective food)	Fruits and vegetables	Required for normal growth and development	
Proteins (body building food)	Milk, eggs, meat, fish, soybean	Helps in building and repair of body	



Claw grip



Bridge hold



Knife skills

Hygiene rules

Wash hands!
Tie hair up
Wear an apron
No false nails or nail varnish
Antibacterial spray on surfaces before & after cooking

Check how much fat, sugar and salt is in your food

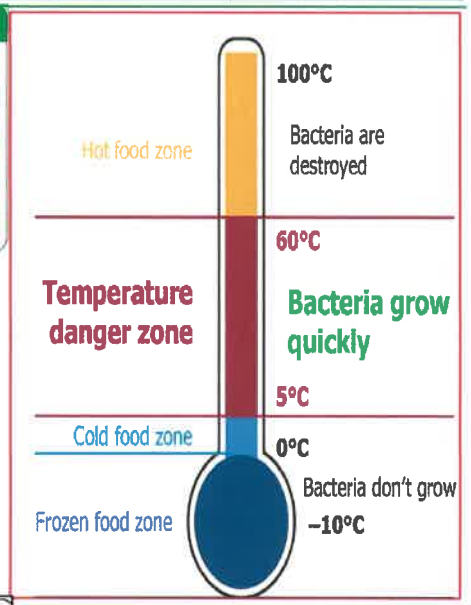
Food Shopping Card

	Sugars	Fat	Saturates	Salt
What is HIGH per100g	15g	20g	5g	1.5g
What is MEDIUM per100g	5g – 15g	3g – 20g	1.5g – 5g	0.3g – 1.5g
What is LOW per100g	5g	3g	1.5g	0.3g

Remember that the amount you eat of a particular food affects how much sugars, fat, saturates and salt you will get from it.

COOKING SKILLS

Chop
Fold
Roll
Knead
Shape
Simmer
Boil
Bake
Fry



What happens when food is cooked:

Changes to:	Taste	Colour	Texture	Smell

Protein denaturation: the process of altering a protein's molecular characteristics or properties

Proteins: Coagulation: The process of turning a liquid into a solid. Example: Egg

Carbohydrates: Gelatinization: When heated a mixture thickens as starch particles absorb water. Example: White sauce

Carbohydrates: Caramelisation: Sugars change colour and flavour when heated. Example: Onions

Carbohydrates: Dextrinization: the browning that happens when starches are cooked. Example: Toast

Fats: Plasticity: the ability of fat to hold its shape

Water: Evaporation: when water is heated it turns into a gas

Liquid	Temperature in Celsius
Water freezes at	0° c
Water boils	100° c
Normal body temperature	37 °c