Food Technology

FOOD PREPARATION METHODS

MISS BET

YEAR 11 FOOD TECHNOLOGY

SYLLABUS LINK

P4.3 selects foods, plans and prepares meals/diets to achieve optimum nutrition for individuals and groups

Preliminary
Food Technology
Syllabus

Students learn about:	Students learn to:
Food nutrients • food nutrients: carbohydrates, proteins, lipids, vitamins, minerals and water • structure of carbohydrates, proteins and lipids • sources of carbohydrates, proteins, lipids, vitamins, minerals and water • functions of carbohydrates, proteins, lipids, vitamins, minerals and water in the body • significant interrelationships between nutrients, including: – iron and vitamin C – iron and fibre – calcium and phosphorous – calcium and vitamin D – calcium and fibre – calcium and lactose – folate and vitamin B12 – sodium and potassium	• identify food nutrients • identify types of carbohydrates, proteins, lipids and vitamins • identify the nutrient composition of various foods • explain the functions of food nutrients in human nutrition • combine foods to demonstrate nutritionally beneficial interrelationships between foods
• digestion, absorption and metabolism of food	• describe the process of digestion, absorption and metabolism of food
Diets for optimum nutrition • nutritional requirements throughout the life cycle	• investigate the recommended dietary intake of energy, protein, vitamins and minerals for particular individuals and groups using appropriate data such as RDI tables in print or electronic format
• current food selection guides and nutritional information that assist in planning and evaluating meals/diets	• select foods to provide a balanced intake of nutrients for particular individuals and groups to meet a variety of nutritional needs
• preparation techniques to produce nutritious foods	• use suitable preparation methods to optimise the nutritional value of foods • assess meals/diets in regard to meeting nutritional needs throughout the life cycle • plan, prepare, present and evaluate meals/diets that address the needs for optimal nutrition throughout the life cycle

Overview

We need to consider how we are preparing these foods and how this preparation method is impacting the nutrients inside. Specific nutrients and minerals can be lost in food products when they are prepared a certain way.

NUTRIENT REACTIONS

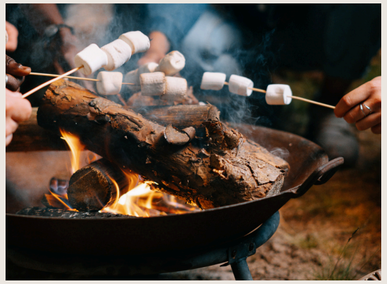
NUTRIENT	FOODS CONTAINING NUTRIENT	COOKING METHODS TO AVOID	EFFECT
Vitamin A (fat-soluble) 	Beef Salmon Spinach Sweet potato Mangoes	Roasting Grilling Frying	The loss of fat from food in these cooking methods can destroy Vitamin A.

NUTRIENT	FOODS CONTAINING NUTRIENT	COOKING METHODS TO AVOID	EFFECT
Vitamin B (water-soluble) 	Milk Nuts Eggs Meat Avocados	Roasting Poaching Stewing Boiling Braising Microwaving	Vitamin B can be destroyed through the heat and water used in these cooking methods.

NUTRIENT	FOODS CONTAINING NUTRIENT	COOKING METHODS TO AVOID	EFFECT
Vitamin C (water-soluble) 	Oranges Strawberries Broccoli Potatoes Kale	Baking Braising Roasting Boiling Steaming Poaching	Vitamin C is heat sensitive and can be lost through these cooking methods. Vitamin C can also be lost in foods that are cooked in water.

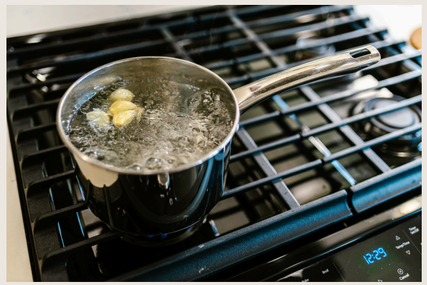
NUTRIENT REACTIONS

NUTRIENT	FOODS CONTAINING NUTRIENT	COOKING METHODS TO AVOID	EFFECT
Vitamin D (fat-soluble) 	Oily fish varieties Milk Egg yolks Mushrooms Fortified cereals	Roasting Grilling Frying	Vitamin D is fat soluble and can be lost when cooking with these methods.



NUTRIENT	FOODS CONTAINING NUTRIENT	COOKING METHODS TO AVOID	EFFECT
Minerals 	Eggs Beans Nuts Spinach Sardines	Stewing Boiling	Minerals from individual food items can be leached out during the process of boiling and stewing.

NUTRIENT	FOODS CONTAINING NUTRIENT	COOKING METHODS TO AVOID	EFFECT
Vitamin E (fat-soluble) 	Almonds Pine nuts Avocado Sunflower seeds Pumpkin seeds	Roasting Grilling Frying	Vitamin E can be lost when these cooking methods are used as it is a fat soluble vitamin.

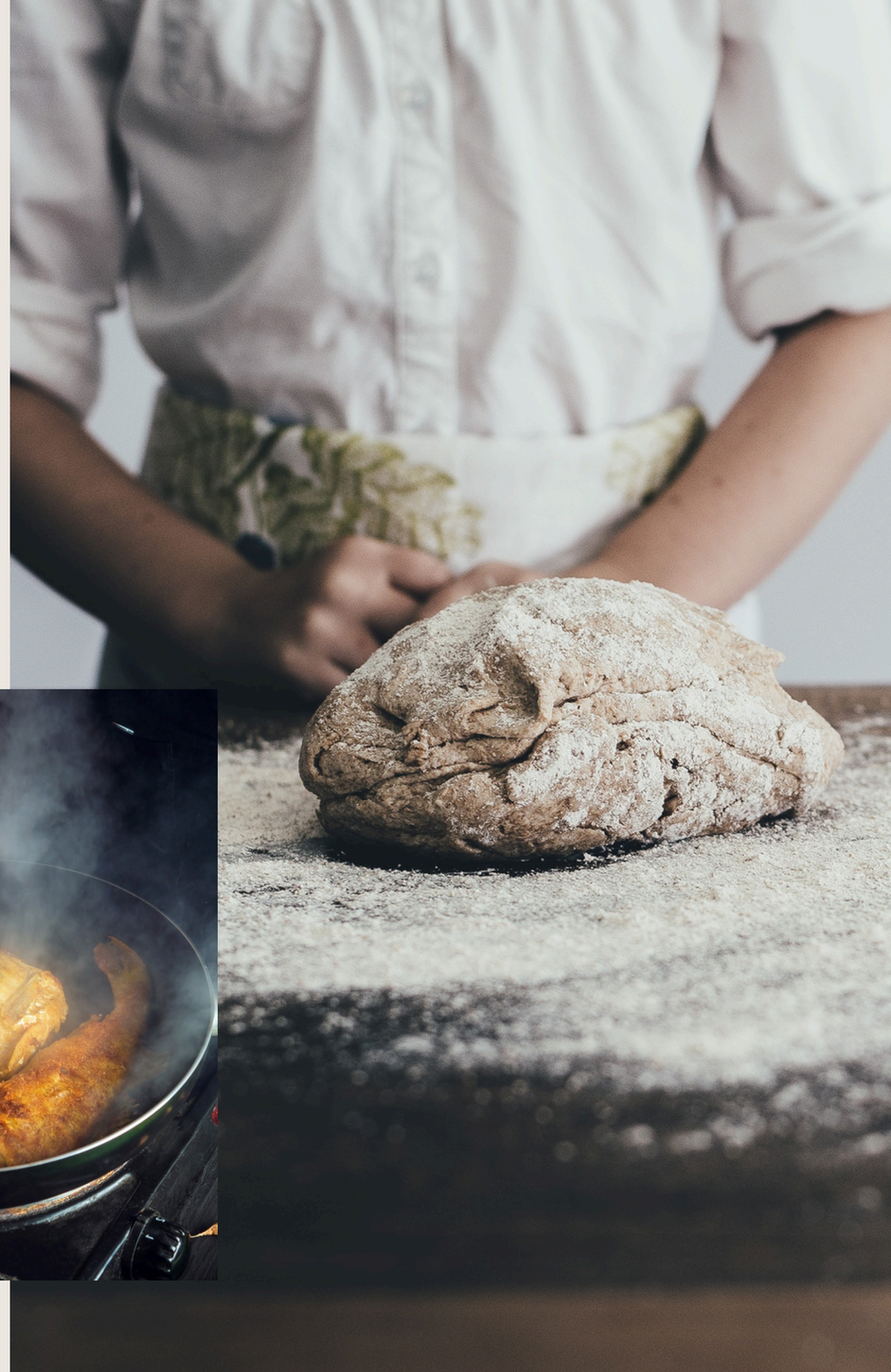


NUTRIENT	FOODS CONTAINING NUTRIENT	COOKING METHODS TO AVOID	EFFECT
Vitamin K (fat-soluble) 	Kale Pork Broccoli Cooked cabbage Hard cheese	Roasting Grilling Frying	Vitamin K is a fat soluble vitamin which can be lost when using these cooking methods.

Food Preparation Techniques To Produce Nutritious Foods

When preparing foods ensure you:

- Avoid overuse of salt – use fresh herbs and spices to add flavour.
- Use wholegrain alternatives
- Portion control
- Use fresh foods
- Be careful when boiling foods as the vitamins can be removed
- Try to use lean cuts of meat
- Try to avoid deep-frying
- Create sauces from vegetables rather than creams
- Consider using low-fat alternatives



Food Preparation Techniques To Produce Nutritious Foods

STEAMING

- Allows food to cook within its own juices, helping to retain natural goodness - steaming Broccoli = preservation of cancer-fighting nutrients.
- Steaming, parboiling, eating foods raw (where appropriate) or minimising time on heat = reduce nutrient loss, particularly water-soluble vitamins (B, C)

dumplings

PEELING

- Fruits and vegetables = essential nutrients + fibre in their skins.
- Preparation of vegetables - wash thoroughly and leave the skins on if possible (if not, peel lightly).

potatoes

POACHING

- Foods cooked in small amounts of hot water, just below boiling point.
- Cooking time = slightly longer.
- Decreases nutrient retention
- Ideal in gently cooking foods such as, fish, eggs and fruit.

pears

BOILING

- Quick and easy to complete
- Requires water to fulling submerge food
- Water dissolves and washes away water-soluble vitamins and 60-70% of minerals.
- Considered healthier than alternative methods like deep frying.

pasta

Food Preparation Techniques To Produce Nutritious Foods

STIR FRYING

- Effective for bite-size pieces of meat grains like rice and quinoa, thin-cut vegetables like capsicum, carrots and snow peas.
- Retains nutrients + only uses a small amount of oil at high heat.
- Fantastic and quick way to cook.

beans

RAW FOODS

- It is said, “Eating the rainbow” in the form of raw food helps to reduce the risk of cancer (supporting good health).
- Plant-based foods = increased consumption of more vitamins + fibre.
- No added sugars and oils.
- Blending and juicing raw foods is a convenient way to eat raw foods.

vegetables

BAKING

- Easy, dry-heat method of cookery.
- Food is placed in a oven and left unattended.
- Sometimes unnecessary fats are used during this method.
- Heat-sensitive vitamins, such as vitamin C, are lost during baking.

pears

MICROWAVING

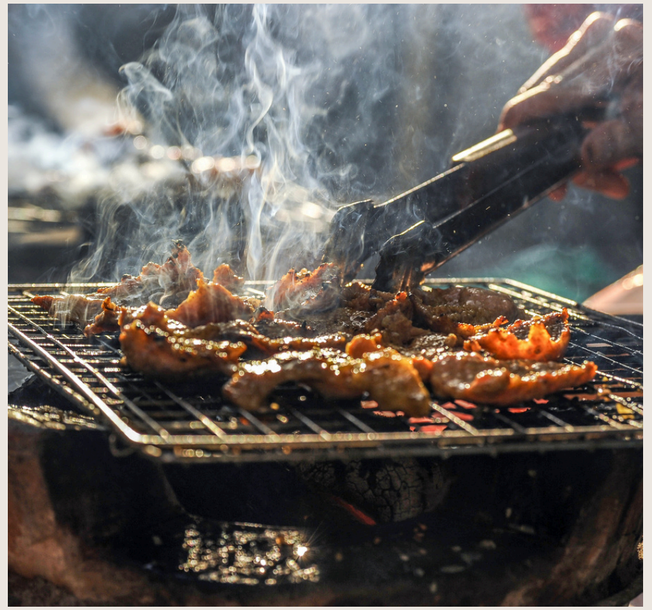
- Considered to be one of the healthiest ways to cook due to short cooking times = minimal nutrient loss
- Cooking from the inside out.
- Food can be dried out - to avoid this, simply spray the food with water or place a wet paper towel on top.

rice

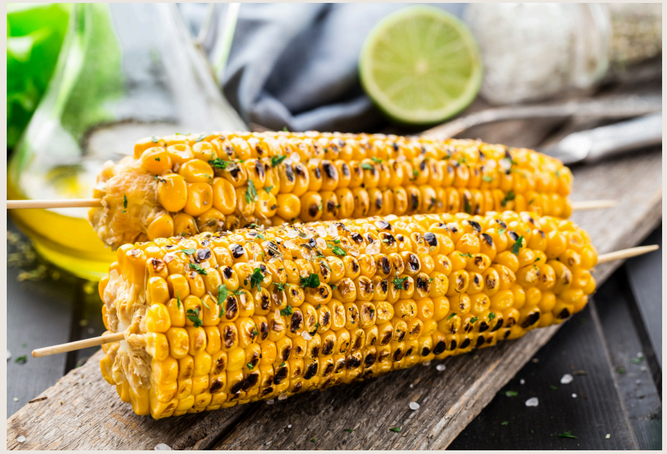
Food Preparation Techniques To Produce Nutritious Foods

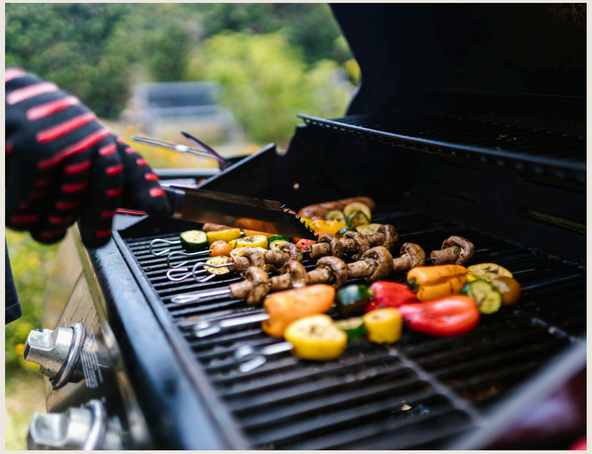
GRILLING

- Maximises nutrition without sacrificing flavour = requiring minimal added fats and imparts a smoking flavour.
- Oil is needed to sear food - nutritionally sound when using oils like olive oil.
- Increased risk of pancreatic and breast cancer if regularly consuming charred, well-done foods (supported by research).
- High heat produces a chemical reaction between fat and protein, creating toxins that are linked to the imbalance of antioxidants in the body and inflammation, potentially leading to an increased risk of diabetes and CVD.

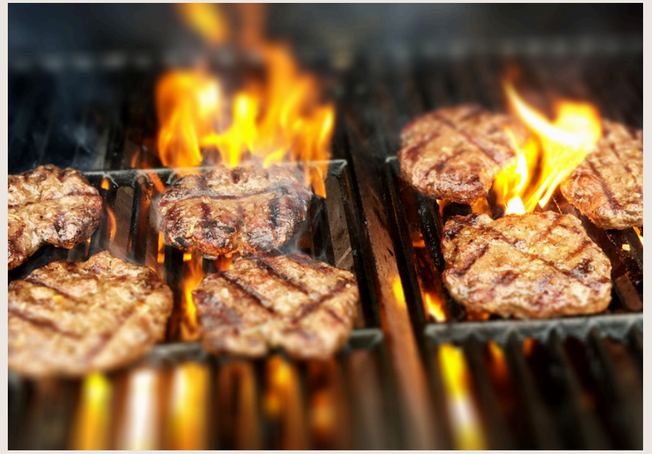


vegetables





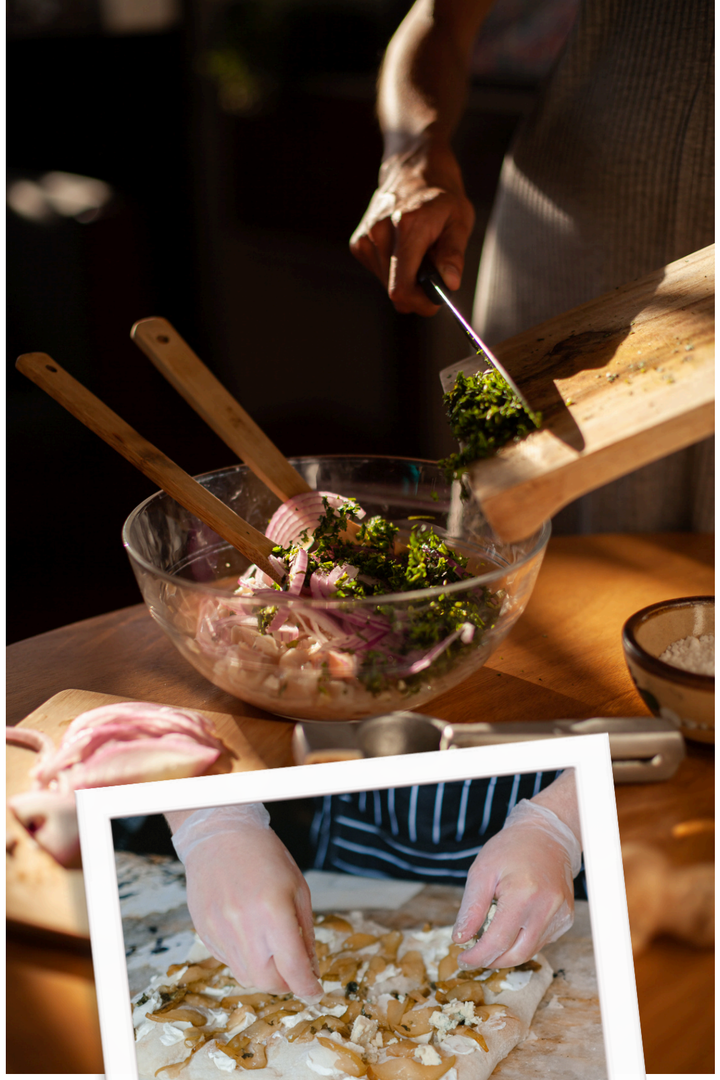
meats

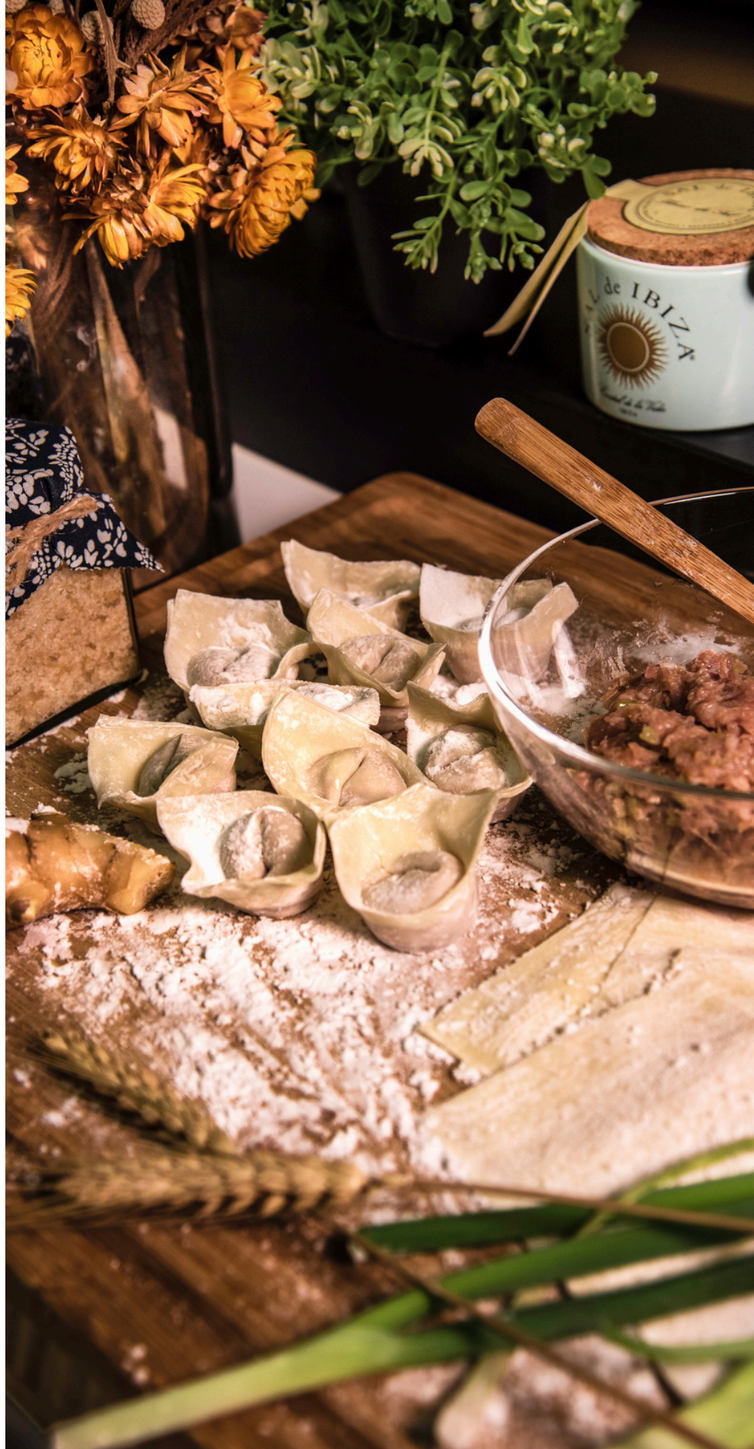


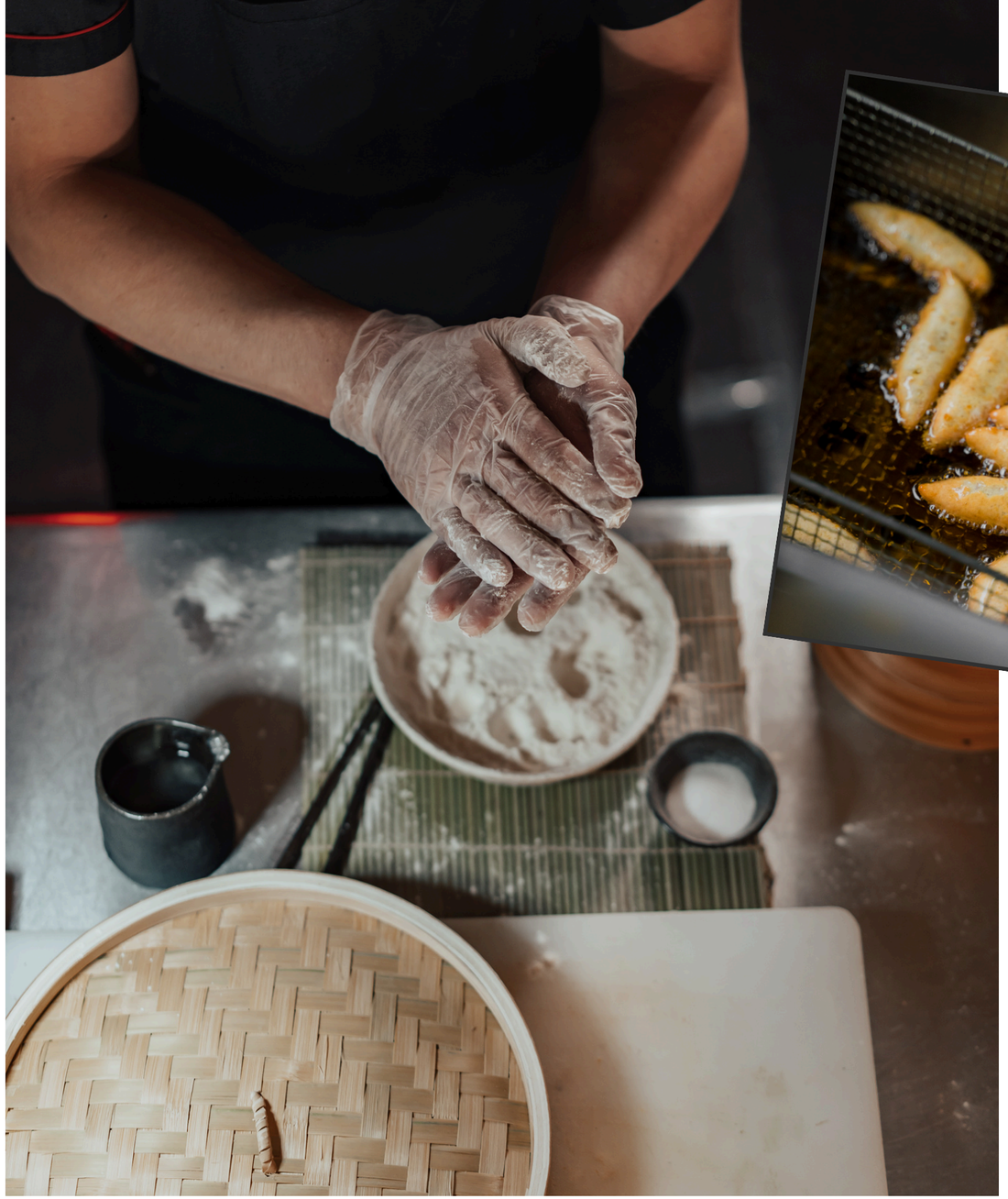
ACTIVITY: QUIZIZZ

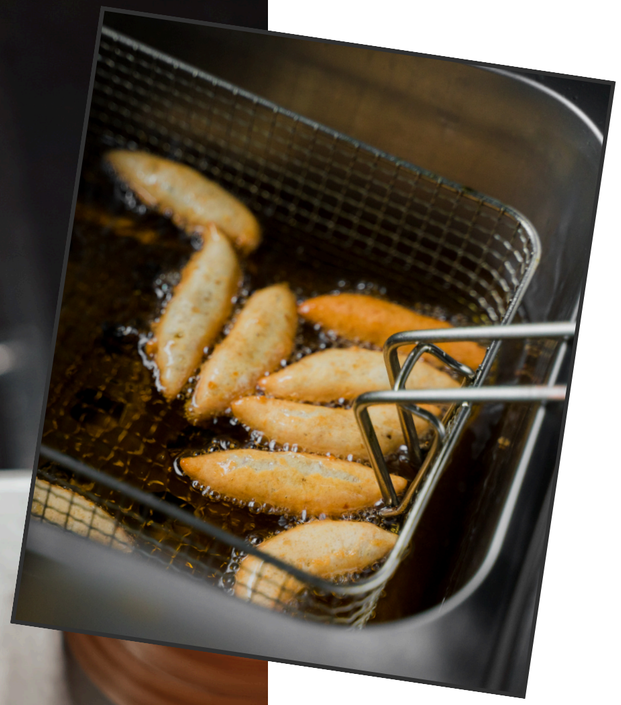
Link:

https://quizizz.com/admin/quiz/668344d2430 7cc07147e8f48/nutrition-post-test?_sm_au_=iVVDkrMO3qjkOnDRqCs6FKQctT8sW.









ACTIVITY:
WORD SEARCH + CROSS WORD