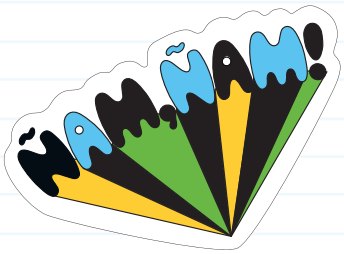
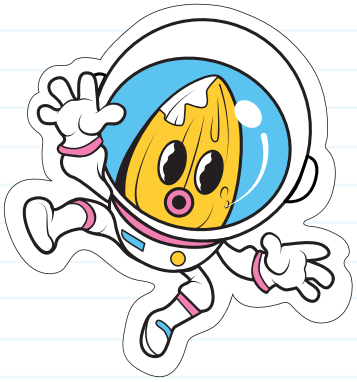


LOS SALVACOMIDAS

DIDACTIC UNIT

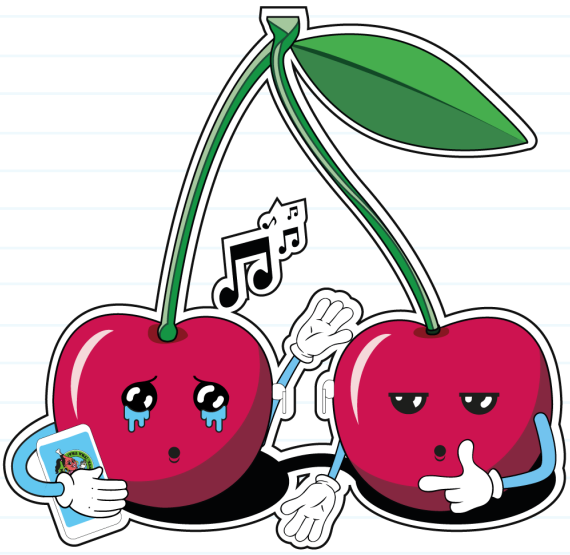


eit Food
LOS SALVACOMIDAS

Co-funded by the
European Union

FEN
FUNDACIÓN ESPAÑOLA DE LA NUTRICIÓN

ÍNDICE



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HOW SHOULD THIS MATERIAL BE USED?

- Introduction -

INTRODUCTION

The main purpose is to help you, as a teacher, to plan a **learning situation** so that your students gain **significant knowledge of healthy eating and food waste**, to change their attitudes and to improve their skills.

To do this you have a series of dynamics and interactive activities for groups ("Student Activities" dossier) to streamline the **participatory work**.

1. Each section of this teaching unit contains a **preliminary information section**, which will help you explain the **theoretical concepts**.

   You will see that some words are blue and underlined. These contain a **hyperlink** to a reference website in case you want to dig deeper or learn more.

   Remember that you have the **curriculum link** to help you with course programming and sequencing. At the end of each section, you have a **schematic table with the Key Skills and the curricular areas** in which the proposed activities can be carried out.

2. To help your students assimilate these concepts, we have provided you with a first **synoptic table with the corresponding game cards**. There are several dynamics in the "Student activities" dossier with individual sheets and links to interactive resources which will serve to **establish what you have learned**, by way of review, but with the **Gamification teaching methodology.**

3. On a subsequent knowledge scale , you have available, in this dossier, a **second classroom activity**, which is a group activity aligned with the **Collaborative Learning, Flipped Classroom** and **Multiple Intelligences** didactic methodologies so that your students go further and apply what they have learned.

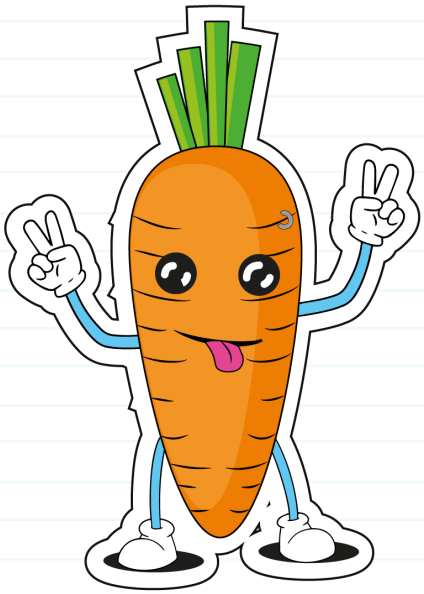
   To carry it out in your classroom, we have provided you with an orientation chart of different activities **oriented to each primary cycle**, so that you choose the one that is appropriate for your group.

4. These activities are also **interdisciplinary** and can therefore be conducted in other areas or subjects.

5. Once the students have completed the game cards and group activity, they will be ready to start carrying out the **classroom project.** To do this, we have provided you with a series of **fieldwork sheets** that, as **indicators** (inventory, analysis, comparison and scheduling) will help you to shape the project and participation work: **the creation of a healthy menu or dish, without losing sight of it being a sustainable dish and assessing the minimum food waste for its preparation.**

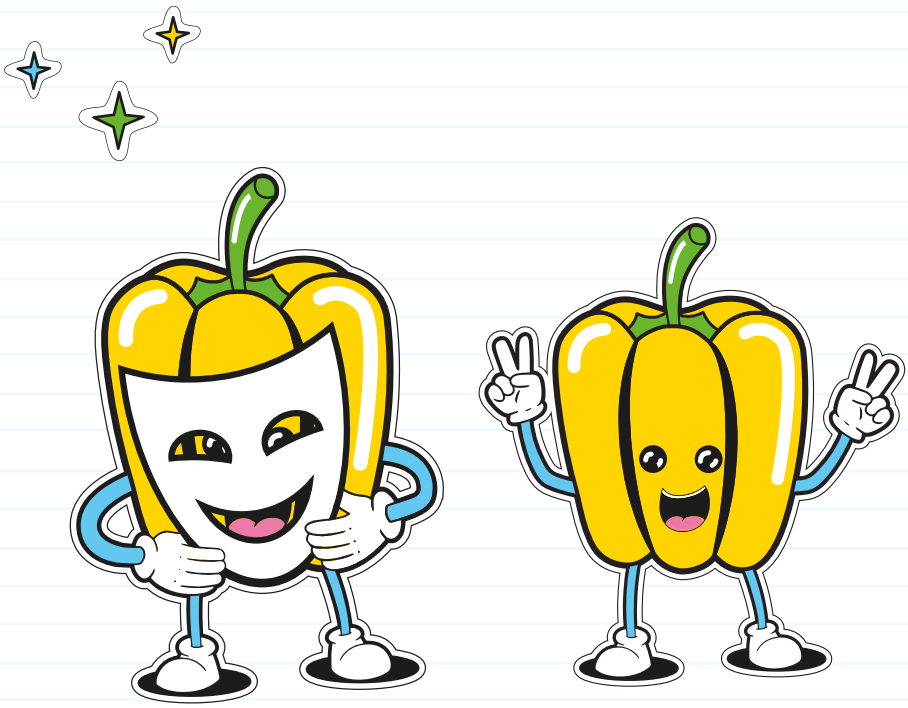
6 In the private area, you will also find additional resources such as links, games, inforgraphics and much more You have a schematic table with the **Key Competencies and the curricular areas** in which the proposed activities can be carried out to plan your lessons.

THEMATIC FOCUS		GAMIFICATION ACTIVITIES	FLIPPED CLASSROOM ACTIVITIES	COLLABORATIVE LEARNING ACTIVITIES	INTERACTIVE ACTIVITIES
FOOD AND NUTRITION	MACRONUTRIENTS	INDIVIDUAL FILES	FOOD INVENTORY	ARCIMBOLDO WORK	GAME "THE PERFECT MENU"
	MICRONUTRIENTS		INVENTORY OF FRUITS AND VEGETABLES	CHROMATIC CIRCLE	
BALANCED DIET	APPROXIMATE AND RECOMMENDED QUANTITIES AND PORTIONS	INDIVIDUAL FILES	WEEKLY MENU AND ALTERNATIVE MENU PROPOSAL	NUTRITION LABEL	
			BALANCED MENU		
RESPONSIBLE AND SUSTAINABLE COOKING	THE RECIPE BOOK IN THE MEDITERRANEAN DIET				
	TRASH COOKING RECIPES	INDIVIDUAL FILES	CREATIVE MENU PROPOSAL	AROMATIC GARDEN	GAME "THE DUNGEON FROM THE DRAGON"
				GASTRONOMIC MAP	
				1,2,3 ANSWER AGAIN	



1

DIFFERENTIATING BETWEEN FOOD AND NUTRITION



1.1

CONTEXTUALIZATION

When we eat, we not only eat because we are hungry or have an appetite, but above all because **food provides us with the forces and energies** necessary for **our bodies' proper functioning.**

However, to eat well, we need to know what nutrition is, so we **know what to eat.**

Nutrition refers to the physiological processes that occur when we consume food, through which our bodies receive, transform and use the chemical substances contained in food. Or, in other words, nutrition is the way the body converts and uses nutritious substances from food.

Some provide heat and energy for daily activities, others **regulate body processes** and the chemical reactions that occur in cells, and others **repair and renew** the body, providing _ _ _ _ _ _ _ _ substrates for body growth.

In this sense, the human body, our body, needs a continuous supply of substances (nutrients) that we must ingest, not only to cover the need to feed ourselves but because of the specific functions they have on the functioning of our body.

These nutrients are part of foods, which are grouped into **macronutrients and micronutrients.**

If we had to make a comparison, we should say that your body is like a car, and food, fuel. Depending on the quality and quantity of fuel, the body will work better or worse.


Dairy


Meat


Seafood


Cereals


Pasta and rice


Legumes and nuts


Fruit


Vegetables


Eggs


Fats and oils (butter)


Drinks


Sweets and pastries

1.2

MACRONUTRIENTS

Macronutrients are grouped into **proteins**, **carbohydrates** and **lipids** (or fats).

Fibre and water are **not macronutrients**, but they are in this group because they are present in considerable amounts in most foods, as both are directly involved in the body.

- **Water** is the main component of the human body. It acts as a solvent for other substances, **participates in cellular chemical reactions** and facilitates the function of **digestion**. It is also the means of **elimination** of waste products from the body.

- **Fibre** lowers **blood glucose (sugar) and cholesterol levels** and provides essential support to the **digestive system**.

Main functions of macronutrients:

- **Energy nutrients.** They act as cellular fuel, present in the carbohydrate group.

- **Plastic nutrients.** They act as regenerators of the organism. They are present in the protein group, although small amounts of other types of nutrients are also used.

PROTEINS:

They are essential for metabolism as they contribute to the **formation**, **development** and **renewal of all organs in the body**, shape the **bones** and **muscles**, supply **energy** to the body and play important roles in cells.

Protein is present in foods of animal origin such as meat, organ meat and household meat, such as liver, kidneys, tripe or muffins, fish, eggs and milk, and in plant foods such as pulses, nuts and soya.

CARBOHYDRATES:

There are 2 types, called simple sugars, which are released directly when ingested and complex, slow-release, satiating carbohydrates. Both provide the **energy your muscles and body** need to function.

Simple carbohydrates are found in sugar cane (brown sugar) and beet (white sugar), honey and jam, as well as fruit juices and some foods like bananas or raisins.

Complex carbohydrates are found in both cereals, bread, and pasta - wheat, corn, barley, oats, and rye - as well as in starchy foods like rice and tubers (potatoes and yams).

Legumes like chickpeas, lentils, beans, peas and soybeans also belong to that group, as do some fruits like pineapple and berries (strawberries, cherries).

LIPIDS:

Fat is another direct source of **energy for the body**, providing even more calories than carbohydrates and protein. Lipids form adipose tissues that **protect and support vital organs** because they are insulating.

They are also part of cell membranes and regulate some **cell processes**, while **facilitating the intake of fat-soluble vitamins** (A, E, D, K), among others.

Lipids include not only visible fats like butter, margarine, olive oil, or visible fat from meat, but also invisible fats found in milk, eggs, nuts, or fish.

1.3

MICRONUTRIENTS

This group includes vitamins y mineral salts, mainly found in **fruits and vegetables**.

As the name suggests, "micro" means that they are present in very small proportions, but they are indispensable even though the amounts needed by the human body are measured in thousandths, or even millionths of a gram (trace elements or oligo-elements).

The **main function** of micronutrients is to **facilitate and control biochemical functions, such as regulatory functions. They are involved in nerve functions and proper muscle development.**

Fruit and vegetables can be grouped by colour range, since the pigments that make this variety of colours possible in foods are actually phytonutrients, substances of plant origin that, although they do not have a specific nutritional value, have proven to be key to long-term health.

WHITE:

White foods get the colour of polyphenols, which have antioxidant properties. They are rich in potassium, which has diuretic properties, and can be a source of niacin and vitamin C.
Furthermore, foods like garlic and onion contain allicin, a compound to which antibiotic properties are attributed.

YELLOW-ORANGE:

Many **orange and yellow** fruits and vegetables get their colour from the antioxidant beta-carotene, which is converted into vitamin A in the body. Vitamin A has many essential functions, including body tissue repair, bone and tooth formation, resistance to infection, and good vision. Other fruits, like citrus fruits, contain vitamin C, which is an antioxidant, and folate, vitamin B.

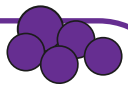
RED:

Red foods are powerful antioxidants and are rich in lycopene, nutrients that improve cardiovascular health and circulation. They also contain minerals like potassium and selenium, which help strengthen the immune system and memory. They also provide vitamins A, B9 and C.

GREEN:

Green fruits and vegetables owe their signature colour to chlorophyll, an antioxidant related to eye health. They contain essential vitamins and minerals that are purifying, strengthen defences, vitamin Kand potassium, which together with folic acid help the heart function properly.

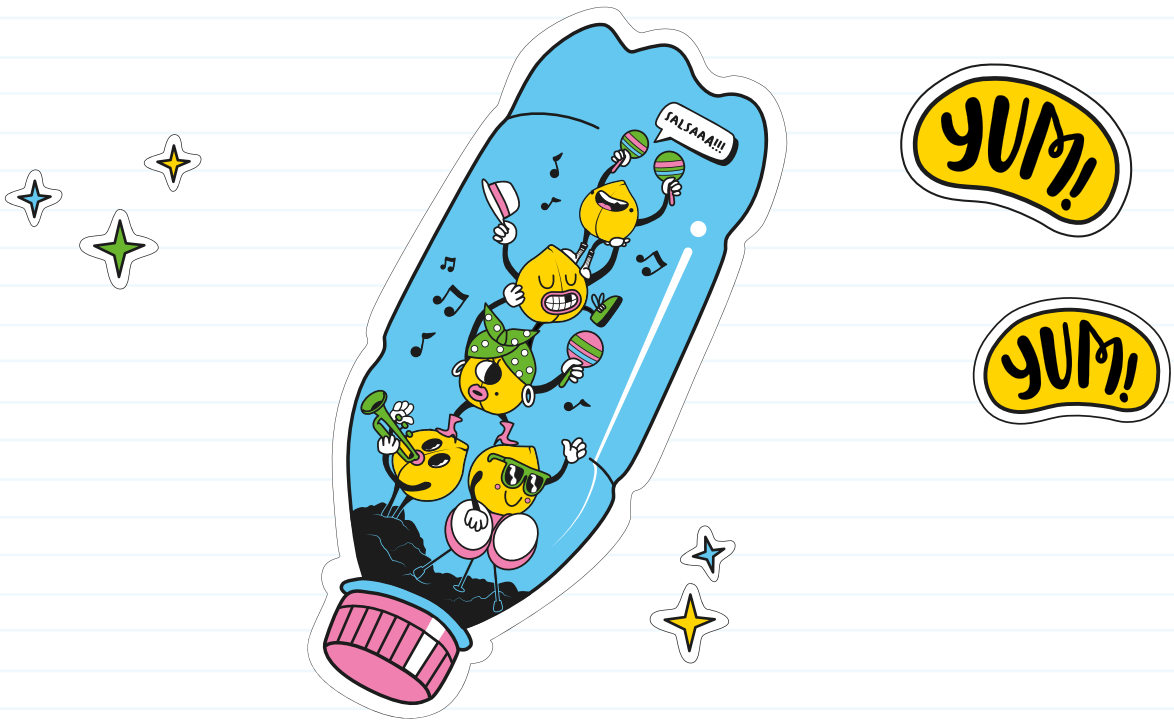
VIOLET:



Plums, blackberries or blueberries get their **purple** colour from flavonoids like anthocyanin, which has antioxidant and anti-inflammatory effects, helps delay cognitive decline and prevent cell damage

2

BALANCED DIET



2.1

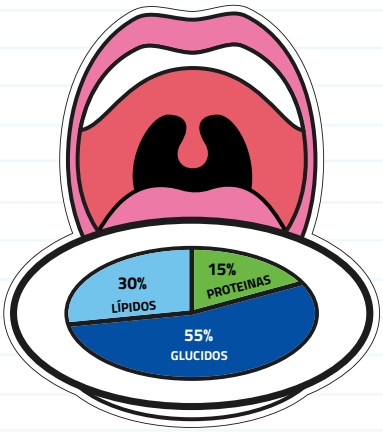
CONTEXTUALIZATION

A balanced diet contains all the necessary foods and provides the right amount of energy nutrients (calories) depending on the exercise undertaken or physical wear and tear undergone and with a variety of macro and micro nutrients (proteins, carbohydrates, lipids, mineral salts and vitamins).

By balancing each group of foods on your plate, you'll achieve an optimal nutritional status.

Following the international recommendations of the WHO World Health Organization, the following macronutrient ratios have been established for daily consumption.

- **Protein** should account for 10-15% of total calorie intake.
- **Lipids** should not exceed 30-35% of total calories consumed.
  - Unsaturated fats in fish, avocados, nuts and sunflower, soy and olive oils are preferable to saturated fats (found in fatty meat, butter, palm and coconut oil, cream, cheese and lard).
  - Industrially produced trans fats present in frozen pizzas, cakes, + biscuits, cakes, wafers, cooking oils and spreads should be avoided, as should trans fats of ruminants (present in meat and milk products of ruminants such as cows, sheep and goats)..
- **Carbohydrates** should provide us with at least 50%-55% of the total calorie intake.



  - Simple carbohydrates (Simple sugars).Less than 5-10% of total calorie intake of free sugars. They are naturally present in honey, jams and fruit juices and concentrates. 50 grams, or about 12 teaspoons.
  - Complex carbohydrates. 30% carbohydrates, cereals and tubers such as pasta, rice, potato and pulses.

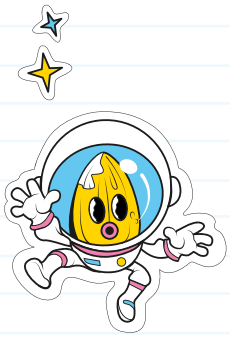
- **Fruits and vegetables.** At least 400 g (five portions) of fruit and vegetables per day, except potatoes, sweet potatoes, mandioca and other succulent tubers.

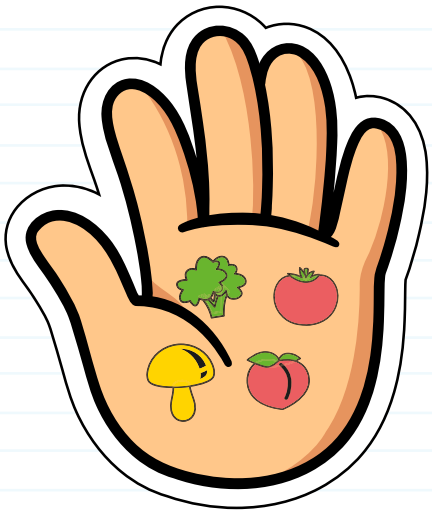
- **Iodized salt.** Less than 5 grams, about one teaspoon a day. The use of aromatic species and herbs in cooking enables the enhancement of the taste of food without abusing salt.

2.2

APPROXIMATE AND RECOMMENDED AMOUNTS AND PORTIONS

To ensure the recommended proportion, each serving should be equivalent to the **amount deposited in the palm of a child's hand.**





FOOD GROUP	SERVINGS	4-6 YEARS	to 12 YEARS
FRUITS	2-3	1/2 PIECE FRESH FRUIT. 1/3 CUP JUICE. 1/4 CANNED FRUIT	1 PIECE FRESH FRUIT. 1/2 CUP JUICE. 1/3 CANNED FRUIT.
VEGETABLES	2-3	1/4 CUP COOKED VEGETABLE, BOILED. 1/2 CUP SALAD	1/2 CUP COOKED VEGETABLE. 1 CUP SALAD.

2. BALANCED DIET

CARBOHYDRATES. CEREALS / BREAD	6-11	12 SLICE BREAD 1/3 CUP PASTA OR RICE. 12 CUP DRY CEREAL 2-3 CRACKERS	1 SLICE BREAD 1/ CUP PASTA OR RICE. 3/4 CUP DRY CEREAL 4-5 CRACKERS
PROTEIN / MEAT AND FRESH	2	1 EGG 1 SERVING OF MEAT, FISH 1/3 CUP LEGUMES (BEANS, LENTILS)	1 or 2 EGGS 2-3 SERVINGS OF MEAT, FISH ½ CUP LEGUMES (BEANS, LENTILS)
DAIRY PRODUCTS	2-3	½ CUP MILK 1 YOGURT ½ PPIECE CHEESE	1 CUP MILK 1 YOGURT 1 PIECE CHEESE
FATS	3-6	1 TABLESPOON OLIVE OIL 10G. BUTTER	1 TABLESPOON OLIVE OIL 10G. BUTTER

	% TOTAL CALORÍAS /DÍA	PROTEÍNAS	CARBOHIDRATOS	LÍPIDOS	FRUTAS Y VERDURAS (MICRONUTRIENTES)
BREAKFAST	25%	25%	25%		50%
LIGHT MEAL/SNACK	10%	20%	50%	30%	1 PIECE
FOOD	30%	15%	55%	35%	1 PIECE
DINNER	25%	20%	30%		50%

3

RESPONSIBLE AND SUSTAINABLE COOKING

3.1

THE RECIPE IN THE MEDITERRANEAN DIET

In order to contextualise how important eating has been in culture and history, we will use the etymology of two key words: diet y gastronomy.

- The word **diet** comes from the Greek word "diaita" which means **lifestyle.**
- The word **gastronomy** comes from the Greek "gaster'; "belly" and nomos "distribute'; "govern" or "regulate'; which means **govern the stomach.**

In this sense, a diet is a style of eating, extended in time and transmitted as a cultural and identity element. It takes its form according to the geographical context and the food available, as well as the processing and preparation processes of the territory in which it is developed.

The Mediterranean diet was declared UNESCO Intangible Cultural Heritage in 2010. The Mediterranean diet brings together a legacy of practical knowledge and skills related to agricultural crops and harvests, fishing and animal husbandry, as well as the manner of food preservation, processing, cooking, sharing and consumption.

3.2

TRASH COOKING

Trash cooking is that which usefully uses all food, without throwing away halfportions of vegetables, and redesigning new dishes from the "leftovers" of others.

This food is full of creativity and focuses on sustainability, as it guarantees the total use of all the ingredients used throughout the preparation of the menus.

The **Mediterranean diet** is distinguished by having many "trash cooking" dishes, such as **croquettes**, **ropa vieja** [shredded beef stewed in tomatoes], **stewed tortilla**, **migas** [made from leftover bread], etc.

The different preservation techniques used since ancient times have also extended the lifespan of meat, fish, fruit, vegetables and pulses. Vinegar, especially in pickles, has the preservative factor of salt in salting. Cans are also another preservation resource.

Lastly, the kitchen space requires many cooking utensils, jars and containers to store and store, so **usage** also includes **recycling any packaging**, box, glass jar, etc. to ensure the **sustainability of the environment**.