

The Magic Plate:

A Guide to Promoting Healthy Eating Habits
in Preschool Children – A Resource for Educators



Authors:

- Prof. Dr. Alma Tasevska, Full Professor at the Institute of Pedagogy, Faculty of Philosophy, “Ss. Cyril and Methodius” University – Skopje
- Prof. Dr. Igor Spiroski, Institute of Public Health, “Ss. Cyril and Methodius” University – Skopje
- Prof. Dr. Natalija Atanasova-Panchevska, Full Professor at the Institute of Biology, Faculty of Natural Sciences and Mathematics, “Ss. Cyril and Methodius” University – Skopje
- Dr. Gabriela Durchevska Georgieva, Advisor for Preschool Education at the Bureau for Development of Education
- Nadica Ilievska, Nutritionist, Ministry of Social Policy, Demography, and Youth
- M.Sc. Sanja Aleksoska, Educator
- Mira Gjorgievska, Pedagogue
- M.Sc. Valentina Zindl, Head Educator
- M.Sc. Atinula Nichova, Educator
- Rosa Cvetanovska, Educator

Proofreading: Tatjana B. Eftimoska

Design: Gjorgji Despodov

Design of additional materials: Dobri Jovevski



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About the Manual

Early childhood is a period of exceptionally rapid growth and development. Healthy and balanced nutrition during this period is crucial for the child's physical, cognitive, and emotional growth and development.

The importance of healthy nutrition is also recognized in the United Nations Convention on the Rights of the Child (1989), which guarantees the right to healthy nutrition and emphasizes the role of the state in supporting families and ensuring the optimal development of children.

In this context, preschool institutions play a key role in promoting healthy nutrition for children. Kindergartens should provide healthy and balanced meals and snacks in accordance with the Nutritional Standards for Children in Kindergartens. Additionally, through educational activities, kindergartens should enable children to learn about healthy food and develop healthy habits through play, together with their peers.

This manual aims to assist preschool staff in enhancing their knowledge of healthy nutrition and offers specific activities and materials to support the development of healthy eating habits among children and their families.

The manual was developed by experts in the fields of nutrition, public health, and child development, as well as experienced kindergarten practitioners. It provides comprehensive information on children's healthy nutrition and a wide range of practical materials and activity ideas that can be implemented in classrooms or in collaboration with parents.

The first part of the manual examines the characteristics of food, the importance of healthy nutrition, and the consequences of unhealthy eating habits. It provides detailed descriptions of children's daily energy needs, recommended nutritional values, and practical advice for organizing meals both in kindergartens and at home.

The second part provides pedagogical guidelines, strategies, and materials for educators and caregivers. Through practical and interactive activities, they will be able to help children and parents learn and adopt healthy eating habits.

We hope that this manual will enable the educational staff in preschool institutions to enhance their knowledge and help children develop lasting healthy eating habits, thereby contributing to their better health and a more productive life.



1.

Theoretical Part – Together for Healthy Nutrition





1. Healthy Nutrition and Its Impact on Children

In this chapter, we look at the importance of nutrition for children and its impact on their health and development. By examining the components of food, we will differentiate between healthy and unhealthy food, understand the benefits of a healthy diet, and consider the consequences of poor nutrition for children. Addressing the functions of different types of food, such as carbohydrates, proteins and fats, as well as components such as minerals and vitamins, will provide a more detailed overview of how a healthy diet can support the development and growth needs of children.

1.1. Why is Healthy Nutrition Important?

Nutritious foods support growth, learning and maintaining required energy levels. Eating a balanced and nutritious diet is especially important during childhood. Preschool children, between 2 and 5 years old, on average, grow from 15 to 22 centimeters and gain from 5 to 7 kilograms. Significant brain development also takes place during that period. Developing healthy eating habits is crucial for the proper development of a child's organ systems, including:

- Cognitive development, also known as brain development - children's ability to develop language skills, short-term and long-term memory and to connect things;
- Physical development - physical growth of the child, including height and weight;
- Emotional and social development - the ability to form relationships with others, recognizing and dealing with emotions and maturing;

A healthy diet contributes to:

- Increased functionality of the brain
 - Children who eat well arrive at school and kindergarten better prepared to learn.
- Improving behavior and learning
 - Behavior can also be improved through nutrition, resulting in a better living and learning atmosphere for all





A healthy diet includes a balanced intake of proteins, carbohydrates, fats, vitamins, and minerals. It contains larger amounts of protein and carbohydrates, and less fat. It is especially important to drink water, as well as the intake of vitamins and minerals, which are mostly found in fresh fruits and vegetables.

Unhealthy food is nutritionally poor, and usually high in calories. These foods include processed items, ready and semi-ready meals high in sugar, salt, and saturated fat, along with diets low in fruits, vegetables, fiber, legumes, whole grains, fish, seeds, and nuts. In an unhealthy diet, you usually drink water only when you feel thirsty.



1.2. What Does Food Consist of?

Food, health, and physical and mental ability are closely interrelated. To understand the impact of food on children's health, psycho-physical growth, and development, it is essential to know its composition.

Food is primarily composed of macronutrients and micronutrients.

Macronutrients provide energy and are needed in relatively large amounts.² The primary macronutrients include carbohydrates, fats, and proteins.³ Water is also a nutrient, although it does not provide energy (calories) like the other macronutrients.

Micronutrients are essential for various physiological functions but are needed in smaller quantities. They include two types: vitamins and minerals.

² Typically, the daily requirement for macronutrients is considered to be more than 100 milligrams per day.

³ Certain minerals, such as calcium and phosphorus, are also considered macronutrients.





Macronutrients

Carbohydrates

Examples of carbohydrates

- Complex Carbohydrates : Bread, rice, pasta, potatoes, beans, vegetables, and nuts are examples of complex carbohydrates. They have the following benefits:⁴
 - They are slowly digested, keeping you satiated for longer.
 - They enhance intestinal health and support stomach flora.
 - They reduce water retention.
 - They aid digestion.
 - They contribute to building muscle mass.

- Simple Carbohydrates: Fruit, milk, sweets, baked goods, and fast food are examples of simple carbohydrates. They have the following characteristics:⁵
 - They cause rapid changes in blood sugar levels.
 - They provide a quick burst of energy.

⁴ Complex carbohydrates contain starch, fiber, pectin and glycogen.

⁵ Simple carbohydrates include glucose, fructose, galactose, sucrose and maltose.





How are carbohydrates and fats related in the body?

When glucose levels rise, the pancreas produces insulin. The more carbohydrates we consume, the more insulin is produced. Complex carbohydrates are digested slowly, while simple carbohydrates are digested quickly, leading to quicker hunger and increased food intake. Frequent consumption of simple carbohydrates causes a rapid spike in insulin levels, disrupting carbohydrate metabolism. This process converts carbohydrates into fats, which are stored in the body and can contribute to increased body weight and obesity.

The Role of Carbohydrates in a Child's Body

Carbohydrates are the primary source of energy for all cells in a child's body. They fuel running, playing, and even thinking. With their fast metabolism and active lifestyle, children require adequate energy for normal functioning and growth. Carbohydrates provide the primary "fuel" for the body, especially for the brain and muscles. They also help maintain stable blood sugar levels, which is crucial for the nervous system's proper functioning and for preventing fatigue. Furthermore, dietary fiber found in fruits, vegetables, and whole grains supports digestive health and satiety, helping regulate appetite and fostering healthy growth and development in children.

Proteins

Examples of proteins

- Meat, fish, dairy products, eggs, legumes, nuts and seeds are good sources of protein.

The Role of Proteins in a Child's Body

Proteins are vital for the growth, development, and overall health of children. They are crucial for muscle development and functions needed for physical activities and sports. Proteins also support bone health, reducing the risk of fractures and bone-related issues.

6 One gram of fat provides 9 kilocalories (kcal).





They are essential for a strong immune system, aiding in the production of antibodies and immune cells to fight infections. Additionally, proteins are involved in hormone production, regulating processes such as growth, metabolism, and digestion. Specific proteins are crucial for brain function and cognitive development, influencing mood, memory, concentration, and learning abilities. Protein-rich foods help maintain satiety, regulate appetite, promote healthy weight management, and support stable growth. Furthermore, proteins aid in tissue repair and wound healing. Including various protein sources, such as meat, fish, eggs, dairy products, legumes, nuts, and seeds, in children's diets is essential for meeting their nutritional needs and ensuring their overall well-being.

Fats

Example of fats

- Healthy fats are found in foods like fish, walnuts, almonds, olives, olive oil, peanut butter, avocados, and similar sources.
- Unhealthy fats, such as saturated fats and trans fats, are mainly found in fast food, margarine, fried foods (like French fries and doughnuts), deli meats, chips, microwave popcorn, frozen dough, and certain crackers. Trans fats offer no beneficial effects on children's health.

The Role of Fats in a Child's Body

Fats provide a concentrated source of energy, delivering twice as much energy per gram as carbohydrates and proteins. They are essential for children as they supply energy for activities like playing and learning, and they support brain growth and development. Fats are also important for absorbing fat-soluble vitamins such as A, D, E, and K, which play crucial roles in vision, bone health, immune function, and blood clotting.

Certain fats, particularly omega-3 and omega-6 fatty acids, are vital for brain tissue development. Omega-3 fatty acids, found in fatty fish like salmon, flaxseed, and walnuts, are crucial for cognitive function, memory, and learning in children.

Including healthy fats in children's diets promotes feelings of fullness and satisfaction after meals, reducing the likelihood of overeating. Additionally, fat is a critical component of cell structures, and fatty tissue serves as thermal insulation and protection against mechanical shocks.





Micronutrients

Micronutrients are essential nutrients needed by the body in relatively small amounts, but they are crucial for maintaining health and proper functioning. These nutrients include vitamins and minerals, which are vital for growth, development, metabolism, and overall health in children.

Vitamins

Sources of Vitamins:

Vitamins are often found in a variety of foods, such as fruits, vegetables, dairy products, meats, and grains.

Colorful fruits and vegetables, such as strawberries, carrots, and spinach, are rich in vitamins C and A. Grains such as oats, brown rice, and quinoa provide B vitamins and vitamin E. Dairy products like milk, cheese, and yogurt offer vitamin D, calcium, and vitamin B12. Fatty fish like salmon, mackerel, and trout are excellent sources of vitamin D and omega-3 fatty acids, while nuts and seeds provide vitamin E and B vitamins. Meats such as chicken, turkey, and beef provide vitamin B12, iron, and zinc. Eggs are a source of nutrients, offering vitamins A, D, E, B12, and choline.

The Role of Vitamins in a Child's Body

Vitamins are essential organic compounds crucial to various body functions, such as metabolism, immunity, and cell growth. They can be obtained through different types of food.

Today, 13 vitamins are known, which are divided according to their solubility in fats (vitamins A, D, E, and K) and water-soluble vitamins (vitamins of the B-group and vitamin C).

Some vitamins, such as vitamins A, D, and K, play an important role in the growth and development of bones, teeth, and general tissues in young children. Vitamins B and C are important for overall health, including the nervous system, while vitamins C and D play a significant role in strengthening the immune system and fighting infection and disease.





Minerals

Sources of Minerals:

Dairy products like milk, yogurt, and cheese provide calcium for strong bones and teeth. Green vegetables, such as spinach and kale, provide calcium, magnesium, and potassium. Seafood, such as salmon and shrimp, supply minerals like iodine, zinc, and selenium. Nuts, seeds, and whole grains contribute magnesium, phosphorus, and zinc, while certain types of meat provide iron, zinc, and phosphorus. Legumes, such as beans and lentils, are rich in iron, magnesium, and potassium, and fruits like bananas and oranges contain potassium and magnesium. Additional minerals can be found in vegetables such as broccoli and Brussels sprouts.

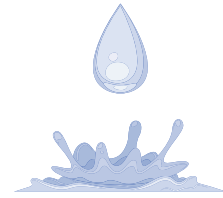
The Role of Minerals in a Child's Body

Minerals are vital nutrients necessary for numerous physiological functions, including bone strength, nerve signaling, muscle function, and fluid balance. A diverse range of foods provide these essential minerals. By including mineral-rich foods in children's diets, adequate intake of essential minerals is ensured, supporting their overall health.

Calcium and phosphorus are particularly important for the development of teeth and bones. Iron is a crucial mineral that helps transport oxygen through red blood cells. Zinc, selenium, and copper have roles in protecting against infections and diseases. Sodium and potassium play a role in regulating body fluids and maintaining electrolyte balance, while magnesium and calcium are essential for the normal functioning of the nervous and muscular systems.

The best way to ensure adequate amounts of trace minerals and other nutrients is through a varied diet, especially foods that are not industrially processed.





Water

In addition to drinking pure water, water is also consumed through different foods, such as fruit (like watermelon), vegetables (like cucumber or tomato), and through various soups and stews, milk, and dairy products.

The Role of Water in a Child's Body

Water accelerates metabolism, boosts energy levels, hydrates the skin, and helps eliminate harmful toxins from the body.

Water is vital for children's health.⁸ It maintains hydration, regulates body temperature, transports nutrients and oxygen, and helps eliminate harmful substances. Proper hydration is key to brain function, as dehydration can cause difficulty concentrating, fatigue, headaches, and impaired memory. Moreover, water is essential for physical performance, as it lubricates joints and cushions tissues, which is particularly important for active children who engage in sports and physical activities.

Water also aids digestion and nutrient absorption, which is important for weight management and reducing calorie intake from sugary drinks. Additionally, water contributes to skin health by preventing dryness and irritation and supports kidney function by flushing out toxins and waste. Vigorous physical activity increases the body's need for water due to increased sweat and the demands of physical activity.

Encouraging children to drink enough water throughout the day is essential for their overall health.

Probiotics and prebiotics

Examples of Probiotics:

Probiotics are consumed through fermented foods such as yogurt, kefir, and sauerkraut, or through supplements.

⁸ The recommended daily water intake is generally estimated to be 1 mL per kilocalorie (kcal) consumed or 30 mL per kilogram (kg) of body weight.





The Role of Probiotics in a Child's Body:

Probiotics are not classified as either macronutrients or micronutrients. Instead, they are living microorganisms that provide health benefits when consumed in adequate amounts. These microorganisms already inhabit the digestive system. Often called “good” or “friendly” bacteria, they help maintain the balance of bacteria in the gut, which is crucial for digestive health. Although they are not considered macronutrients (such as carbohydrates, proteins, and fats) or micronutrients (such as vitamins and minerals), they are still a valuable component of a healthy diet.

Examples of Prebiotics:

Prebiotics are found in bananas, onions, garlic, leeks, asparagus, tomatoes, plums, apples, nuts, soybeans, and wholegrain pasta.

The Role of Prebiotics in a Child's Body:

Prebiotics are special types of dietary fiber that act as food for probiotics, helping them thrive and exert their beneficial effects in the gut, thereby improving children's health.

1.3 Energy and Nutritional Value of Food

The nutritional value of food refers to the amount of energy and the correct balance of fats, carbohydrates, proteins, minerals, certain fatty acids, and dietary fiber, as well as the salt content. The energy (caloric) value of food is indicated in calories, which measure the heat released by food in metabolic processes. The energy value of food products comes from the basic nutrients: proteins, carbohydrates, and fats.

CALORIFIC VALUE OF FOOD

1 g of protein = 4 kcal (kilocalories)

1 g of fat = 9 kcal

1 g of carbohydrates = 4 kcal

1 g of organic acid = 3 kcal

1 kcal = 4.196 kJ (kilojoules)





The daily calorie intake should meet the daily needs of basal and working metabolism. Basal metabolism provides the energy needed to maintain basic life functions, while the energy for working metabolism depends on daily activities.

Calories are an indicator of the energy content in food. After food is ingested, calories are expended through walking, thinking, or breathing. On average, a child may need about 1,000-1,400 calories per day to maintain their body weight. In general, calorie needs depend on the child's gender, stage of development and age, and physical activity. The source of calories is as important as the amount. Consuming empty calories, which lack nutritional value, provides no benefits. Empty calories can be found in foods such as sugar, butter, cookies, cakes, energy drinks, and ice cream.

Food product labels provide key information about the nature and characteristics of food to make informed choices. Information on nutritional characteristics is particularly important for those with special dietary needs, such as allergies or diabetes. Nutritional information helps to form opinions about certain aspects of food, such as its energy (caloric) value and the basic nutrients it contains. Nutritional values are expressed in the nutritional declaration per portion, per 100 g, or per 100 ml of the product.



1.4 Balanced Nutrition

Good nutrition, physical activity, and a healthy body weight are essential components of a child's overall health and well-being. A balanced diet is especially important, providing nutrients that help the body function properly. The body receives the right nutrition from a variety of nutrient-rich foods, such as fresh fruits and vegetables, whole grains, and proteins.





A healthy, balanced diet includes foods from these five groups:

1. Vegetables
2. Fruits
3. Grains
4. Proteins
5. Dairy products

The vegetable group includes five subgroups: leafy greens, red or orange vegetables, starchy vegetables, beans and peas (legumes), and other vegetables like eggplant or zucchini. To introduce enough nutrients and make the plate look varied, a wide range of vegetables should be included, which can be eaten raw or cooked. Fresh, raw vegetables should be prioritized, and frying should be minimized.

A balanced diet also includes a lot of fruit, and it's best to consume whole fruits.

Cereals are best eaten whole because they are digested more slowly and have less impact on blood sugar levels. Whole grains also contain more fiber and protein. Cereals should make up a quarter of a balanced meal's plate. At least half of the grains a child eats during the day should be whole grains, such as quinoa, oats, whole grain rice, barley, buckwheat, millet, and spelt.

The penultimate group is proteins, which should also make up a quarter of a child's plate. This includes meat and fish, as well as beans, peas, and other legumes.

Dairy products remain the most recognized source of calcium, especially cottage cheese and sour milk. As a substitute, soy milk and other soy products are recommended, particularly for children who are lactose intolerant.

Importance of a Balanced Diet

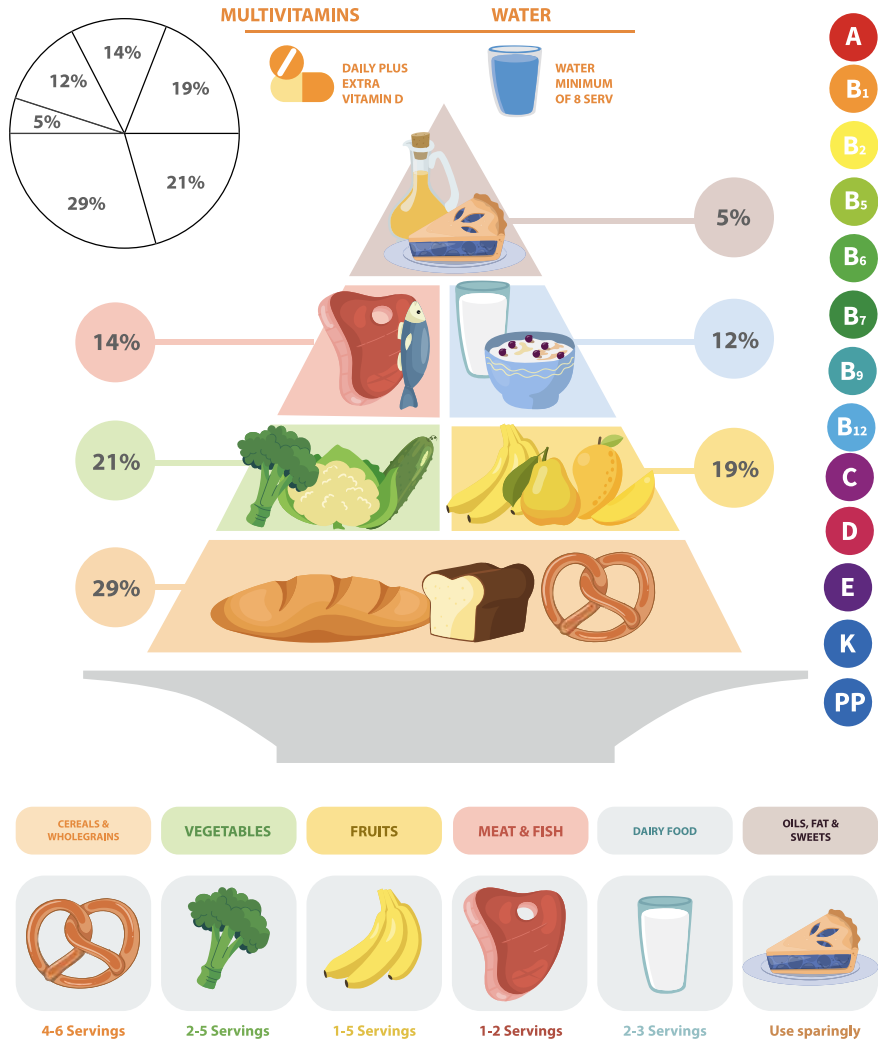
Some of the most common health problems resulting from a lack of a balanced diet include heart disease, cancer, stroke, and diabetes.





THE GOOD PYRAMID

BALANCED FOOD INFOGRAPHICS



Picture 1. HEALTHY EATING PYRAMID

What is a healthy eating pyramid?

The proper arrangement of different nutritional products in certain portions or caloric values forms the healthy eating (nutrition) pyramid. It is a guide to planning a well-balanced meal based on balance, moderation, and variety in the daily diet.

The base of the pyramid is the widest, consisting of foods that should be basic in the diet: cereals, bread, pasta, rice, and potatoes. They should be included in the daily menu in optimal quantities. For example, one meal should include about 30 g of bread, which is equivalent to a slice or half a bagel.



Boiled grains (rice, oats, pasta) and dry grains (oat flakes, etc.) are sufficient in a half-cup serving per meal.

Fruits and vegetables make up the next level of the pyramid. They can be consumed frequently and either separately or in combination throughout the day. Vegetables can be eaten as desired, in any quantity. Fruit is best consumed as a snack. For instance, a quarter cup of dried fruit (apricots, figs, plums) or two apples or a banana is enough for a snack.

At the third level in the nutrition hierarchy are combined foods, divided into two subgroups: one consists of meat, fish, eggs, and legumes; the other contains milk and dairy products.

The top of the pyramid consists of fats, oils, sugar, and salt (sweets, carbonated drinks, and snacks). These are concentrated sources of energy, low in other nutrients, so they should be consumed sparingly.

The children's food pyramid should be slightly richer in milk and dairy products due to the increased need for calcium for bone growth and development. Additionally, it should include abundant fruits and vegetables as essential sources of minerals and vitamins.

A balanced diet typically contains 50 to 60 percent carbohydrates, 12 to 20 percent protein, and 30 percent fat. The body needs quality carbohydrates, lean proteins, essential fats, and fluids. Consuming the right type of carbohydrates is important, as many children consume simple carbohydrates found in sweets and processed foods. Fruits and vegetables are rich sources of natural fiber, vitamins, minerals, and other compounds that the body needs to function properly, while also being low in calories and fat.

1.5 Proper Nutrition and Planning a Healthy Meal

Proper nutrition is essential for adequate developmental and learning achievement. The term "proper nutrition" means a diet that ensures stable metabolism and a healthy organism, balanced in energy value and structure to improve health and/or prevent disease. The nutritional value of the meals we consume is determined by their contents. Someone who eats fruits and vegetables is more likely to consume nutrient-dense foods.

Today's advertised and popular foods are often high in sugars, caffeine, chemicals, and sodium, which can leave children tired, unfocused, irritable, and prone to illness, ultimately affecting their behavior and mood.

In contrast, a child whose diet mainly consists of fast food and soda lacks proper nutrition. Poor nutrition involves skipping meals and eating poorly prepared food.





Proper nutrition must meet several basic requirements: Contain sufficient energy and all necessary nutrients in line with nutritional needs; Provide a balanced ratio of solid and liquid foods that are easy to digest; Provide satiety and satisfaction (through pleasant appearance and taste) and offer variety.

When planning a healthy meal, several principles should be observed:

- The amount of food consumed should meet the body's energy needs and provide nutrients necessary for growth, tissue maintenance, thermoregulation, mental and physical activity, and stable body weight.
- The diet must be diverse in its composition, providing the body with carbohydrates, fats, proteins, vitamins, minerals, water, and plant fibers.
- The amounts of energy-providing nutrients (carbohydrates, fats, proteins) must maintain a balanced ratio (carbohydrates: 55%-75%, fats: 15%-30%, and proteins: 10%-15% of total calories).
- The choice, preparation method, and amount of food must be adapted to weight, age, physiological state, and type of activity. Each meal should follow the appropriate percentage allocation, as indicated in the following table:

Meal	Amount (%)
Breakfast	35-40
Snack 1	5-10
Lunch	25-30
Snack 2	5-10
Dinner	20-25

1.6 Improper Nutrition and Its Consequences





Improper/Unhealthy diet

Junk food for kids typically refers to foods and drinks high in added sugars, unhealthy fats (like trans fats and saturated fats), salt, and low in vitamins, minerals, and fiber.

- Examples of junk foods include sugary snacks and beverages such as candy, cakes, pastries, sodas, juices, fruit-flavored beverages, and sports drinks.
- Processed and fast foods, like fried foods, chips, pizza, hamburgers, hot dogs, and processed meats (e.g., bacon and sausages), are also considered unhealthy due to their high levels of unhealthy fats, sodium, and often added sugars.
- Nutrient-poor foods such as fast food, sodas, pastries, cakes, and chips can lead to vitamin and mineral deficiencies in children, causing long-term health problems.
- Foods with artificial additives, preservatives, and excessive salt should be limited in a child's diet.
- Foods with pesticides are considered unhealthy.
- Pesticides (insecticides, herbicides, etc.) are chemicals used in agriculture to protect crops. Even small amounts of pesticides in food can be harmful to children.
- Foods with additives are also unhealthy.
- Many products contain various additives and preservatives to extend shelf life and enhance taste, aroma, and color.
- Processed and Ultra-processed food is also unhealthy:
 - Processed and ultra-processed foods often include added substances like preservatives and spices, which can increase sugar and fat content while reducing nutrients.
 - Examples include fast food, chips, sodas, frozen meals, canned foods, and soups.

Organic food is free of harmful substances, as no artificial fertilizers, pesticides, preservatives, or additives are used in its production. The difference between organic food and conventionally produced food is that organic food often has a higher nutritional value.





Consequences of an Unhealthy Diet

Regular consumption of junk food can lead to various health issues in children, including obesity, tooth decay, diabetes, cardiovascular disease, and poor overall nutritional status. Therefore, parents and caregivers must promote a balanced diet rich in nutrients while limiting unhealthy options.

Inadequate nutrition can result in:

- Lack of energy and focus
- Malnutrition disorders
- Increased body weight and obesity

Outside of school or daycare, parents should provide their children with smaller meals and snacks every three to four hours to promote healthy nutrition and brain function. Studies indicate that a nutritious snack or meal can help reduce feelings of fatigue and stress.

1.7 Food Safety and Risks, Allergies, Diabetes, and Special Dietary Needs

Providing healthy nutrition for children involves more than just providing healthy meals. It also includes avoiding potential hazards and addressing specific dietary needs to promote their overall health. For preschool children, it is crucial to pay attention to choking hazards, food allergies and intolerances, diabetes, and avoiding foodborne illnesses such as salmonella.

- Risk of Suffocation:
 - Certain foods pose significant choking risks to children, particularly those under the age of 4. Foods like grapes, popcorn, nuts, seeds, hard candies, and large pieces of meat or cheese require careful preparation.
 - Always cut these foods into small pieces that are appropriate for the child's age and stage of development.
 - Supervision during meals is essential to ensure children chew their food thoroughly and sit down while eating, reducing the risk of choking incidents.
- Food Allergies and Intolerances:
 - Food allergies and intolerances can significantly impact a child's diet and health. Allergies occur when the immune system reacts to specific proteins in food, while intolerance is a result of difficulty digesting certain foods.





- Common allergens include peanuts, tree nuts, eggs, milk, soy, wheat, fish, and shellfish. Additionally, some children may have lactose intolerance, gluten intolerance (celiac disease), or other specific dietary needs. Carefully reading food labels and avoiding trigger ingredients are key to managing food allergies and intolerances.

- Diabetes:

- Children with diabetes require close monitoring of blood sugar levels through diet and medication. It is essential to emphasize balanced meals that include complex carbohydrates, proteins, and healthy fats.
- Choosing foods with a low glycemic index, such as whole grains, legumes, fruits, and vegetables, can help effectively regulate blood sugar levels.
- It is also important to limit sugary foods and refined carbohydrates while encouraging regular physical activity to promote overall health and blood sugar control.

- Special Needs:

- Some children may have special dietary needs due to medical conditions, sensory sensitivities, or developmental disorders. For example, children with autism spectrum disorders (ASD) or sensory processing disorder (SPD) may have specific texture preferences or sensitivities that influence their food choices.
- Offering a variety of foods and consulting with health professionals can help develop personalized meal plans that meet the child's nutritional requirements and address any special dietary concerns.

- Foodborne Diseases:


- Besides allergens and choking hazards, parents and caregivers must also be vigilant against foodborne illnesses, such as salmonella.
- Foods commonly associated with salmonella contamination include raw or undercooked poultry, eggs, unpasteurized dairy products, and raw fruits and vegetables.
- Proper food handling, storage, and cooking practices are crucial to reducing the risk of foodborne illness in children.



2.

Nutrition-Related Challenges





The nutritional status of children is critically important. Nutritional disorders, including undernutrition, micronutrient deficiencies, overweight and obesity, and non-communicable diseases resulting from inadequate childhood nutrition, have significant health, developmental, and economic implications^{9 10}

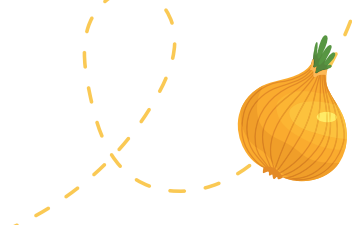
Malnutrition is an imbalance between ingested and expended energy and nutrients. It negatively impacts health, worsens disease outcomes, and affects growth and development in children. Although “malnutrition” is often used to refer to undernourishment, it encompasses both ends of the nutrition spectrum, including undernourishment and “overnourishment.” “Overnutrition” typically manifests as an increased accumulation of fat tissue, leading to overweight and obesity. Malnutrition is a nutritional status characterized by an imbalance, either increased or decreased presence of energy and nutrients, causing negative effects on body shape, size, composition, and functionality, as well as clinical outcomes.

Malnutrition, as well as increased body weight and obesity at a young age, leads to prolonged exposure to health risks that can contribute to the early onset of certain nutrition-related diseases.

Malnutrition frequently leads to infections and higher mortality in children. It also impairs children’s cognitive abilities (research, observation, analysis, drawing conclusions, problem-solving), reduces their willingness to learn and complete schoolwork, and diminishes their potential for work and earnings later in life. Such children lack essential macronutrients (carbohydrates, fats, proteins) or micronutrients (vitamins and minerals), resulting in diseases that hinder growth and development (e.g., anemia due to iron deficiency) or lower the body’s resistance, posing significant health risks from seemingly minor infections or injuries.

9 World Health Organization. Global status report on noncommunicable diseases 2014. Geneva: WHO; 2014.

10 Nutrition-related risk factors are among the most significant factors affecting health and well-being in many countries worldwide. These include high fasting blood glucose levels, which are linked to diabetes, and high body mass index (BMI), which is associated with overweight and obesity. The greatest loss of healthy years due to specific disabilities is linked to diets low in whole grains, high in sodium, low in fruit, nuts and seeds, vegetables, omega-3 fatty acids, and dietary fiber.



Increased body weight and obesity in children lead to short-term cardiovascular issues, increased susceptibility to infections, and low self-esteem. In the long term, they contribute to the early onset of chronic obesity, diabetes, and other metabolic disorders. Obese children often have elevated blood pressure or higher blood fat levels and exhibit symptoms of chronic non-communicable diseases more frequently and earlier. Obesity affects children's happiness, stigmatizes them, and harms their self-esteem.

Monitoring weight gain and undernutrition is especially important in children under five to detect them early.¹¹

In 2022, over one billion people worldwide lived with obesity.

In the WHO European Region, overweight and obesity affect one in three children (29% of boys and 27% of girls).

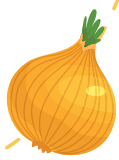
The situation in Macedonia is similar. The population here faces a reduction in risks related to malnutrition and increased risks of overweight and obesity, primarily due to changes in dietary patterns that promote an increased intake of processed food and, therefore, more health-risk ingredients like salt, sugar, and saturated and trans fats.

For over ten years, the Institute and Centers for Public Health have implemented the World Health Organization (WHO) Childhood Obesity Initiative, known as COSI, in 45 countries in the European Region. This initiative is the largest system for monitoring trends in childhood overweight and obesity through standardized anthropometric measurements and assessing the determinants of obesity in family and school environments. The latest data show that¹²

- 30.5% of children aged 6-9 in Macedonia have increased body weight or obesity.
- 13.8% of them live with obesity or extreme obesity.
- Obesity is more common in boys than in girls.
- Most of the children with increased body weight and obesity live in urban areas.
- A diet high in processed and energy-dense foods is a significant factor contributing to increased body weight in children.

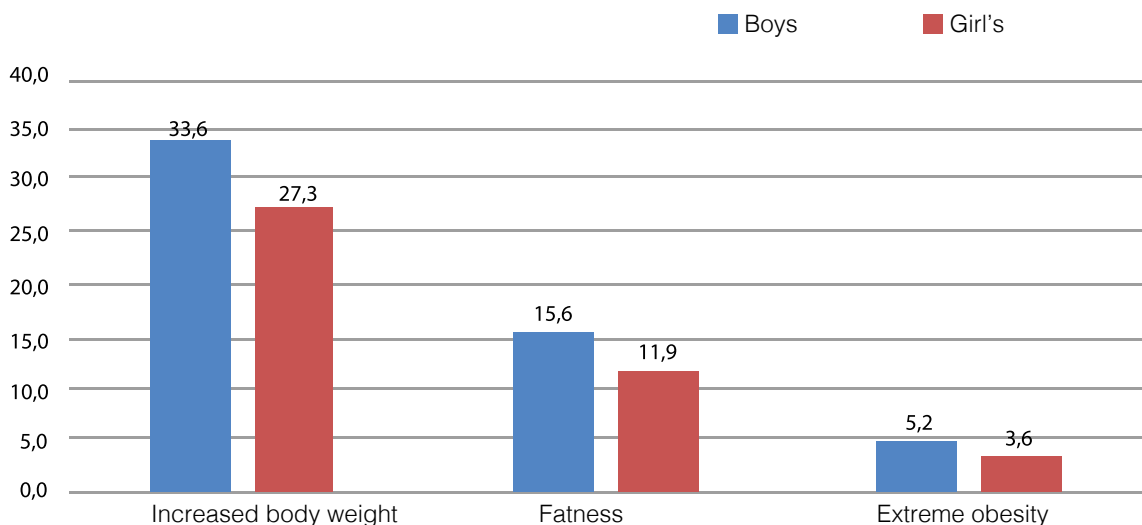
¹¹ At this age, the WHO Growth Standards (WHO. Child Growth Standards. Technical Report, Geneva: WHO Press, 2006) are used to assess children's nutritional status characteristics.

¹² <https://www.iph.mk/mk/news/index/1215>



- The socioeconomic status of children's families and the availability of food in and around schools influence children's eating habits.
- 32% of children aged 6 to 9 drink sugary soft drinks more than three times a week.
- Half of the children consume sugar-rich snacks more than three times a week, and 8.4% of them consume these snacks several times a day.
- Only 24% of children eat fresh fruit daily, while 21% consume fresh vegetables.
- Physical inactivity due to reduced opportunities for safe environments promoting active play leads to less movement and increased screen time, contributing significantly to obesity:
- Approximately 40% of children aged 6 to 9 spend more than two hours a day in front of screens or using electronic devices.
- In total, 48% of children participate in sports or dance for at least two hours a week.
- More than half (63%) actively commute to and from school by walking or biking.

Chart. 1: Increased body weight (including obesity), in percent, among 6-9-year-old children in Macedonia, by sex, 2022

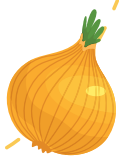


Our country is among the nations in Europe with high levels of body weight and obesity, as shown in Chart JJJ. Source: COSI R5¹³

Of particular concern is the consumption of sweetened soft drinks, which ranks the second worst in Europe. In terms of physical activity,

¹³ World Health Organization. Report on the fifth round of data collection, 2018–2020: WHO European Childhood Obesity Surveillance Initiative (COSI). Copenhagen: WHO Regional Office for Europe; 2022.

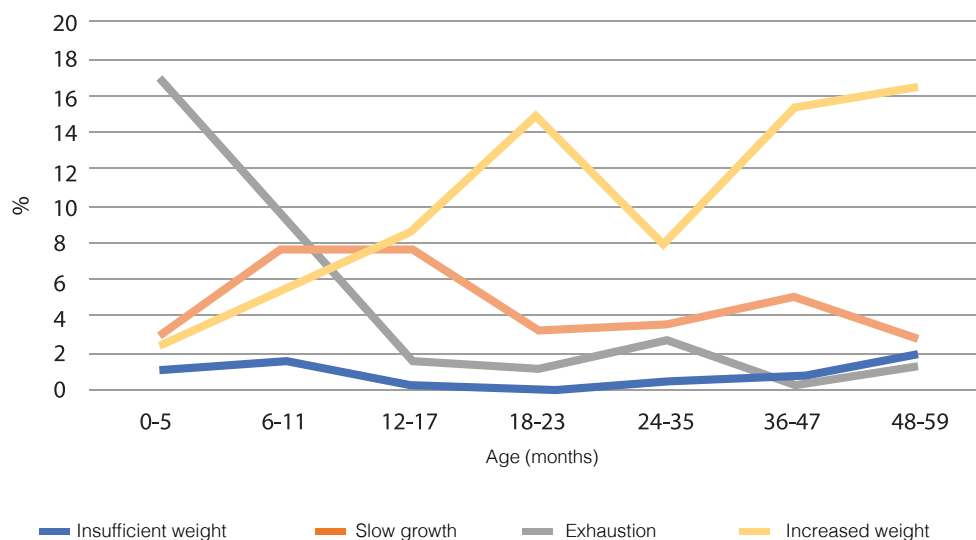




most parameters align with the European average, showing positive results in active commuting to schools. However, the indicator for daily time spent practicing at least two hours of sports or other physical activity is among the worst in Europe.

Overweight and obesity are also becoming a significant public health problem for children under five years old, as indicated in Chart J, which highlights anthropometric indicators of nutrition for children up to five years of age in Macedonia from 2018 to 2019.

Chart 2: Anthropometric indicators of nutrition in children up to 5 years of age, Macedonia, 2018-2019



Source: [MICS 6](#) ¹⁴

2.1 Analysis of Kindergarten Nutrition in North Macedonia in 2022

The Institute and Centers for Public Health in Macedonia conduct regular assessments of the biological quality of nutrition in kindergartens for children aged 4-5 years, as part of the National Annual Program for Public Health. These assessments cover all four seasons.¹⁵

The nutrition that children receive in kindergartens as breakfast, lunch, and snacks over the five days of the week and during the four seasons is analyzed to obtain an average daily intake. This intake is compared to the physiological recommendations for children aged 4 to 5.

Below is some data from the 2022 analysis:

¹⁴ State Statistics Office and UNICEF: Multi-indicator cluster survey for North Macedonia 2018-2019. Skopje: SSO and UNICEF; 2020.

¹⁵ Spiroski I. Diet and nutrition of population groups in the Republic of North Macedonia. In: Report on the health of the population in the Republic of North Macedonia for 2022. Skopje: Institute for Public Health; 2024 (printed).



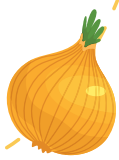
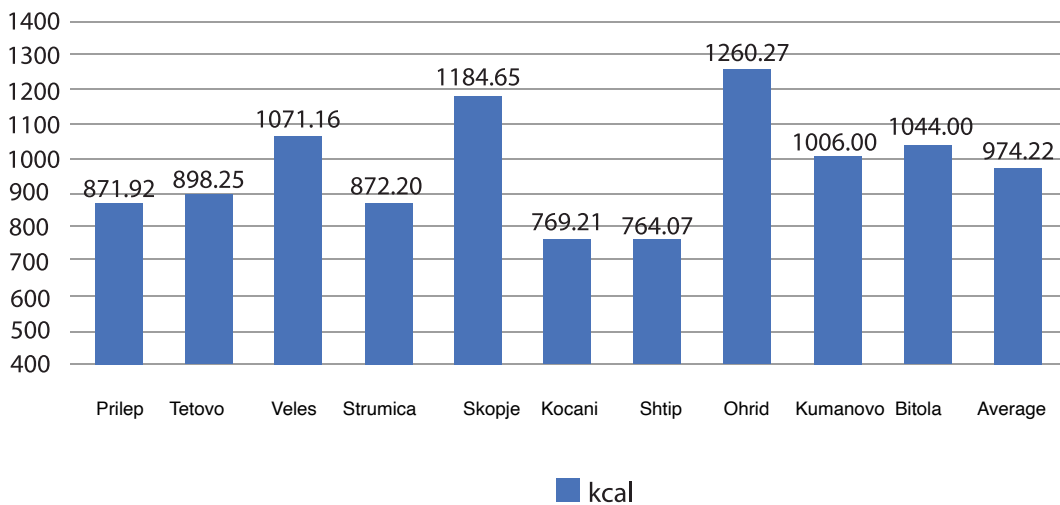


Chart 3: Average daily energy intake of preschool children in RNM



The average energy value in daily meals for preschool children in the country is 974 kcal, which is below the minimum recommended value of 1200 kcal and does not meet 75% of the physiological needs for that age. There are variations ranging from 764 kcal to 1260 kcal. The situation is particularly concerning in kindergartens where the energy value of daily meals is below 1000 kcal. The overall situation has worsened compared to the previous year.

Table 4. Macronutrients in the Average Meal of Kindergarten Children

Average of	g	kcal	% of the total energy
Proteins	36,84	147,37	14,84
Fats	34,14	307,33	31,74
Carbohydrates	129,70	518,78	51,01

The average content of macronutrients in the daily meal aligns with the recommendations for their percentage representation in the meal's total energy value. The variations in daily protein intake, by city, are evident and shown in Chart J.

The daily protein intake needs for this age group (minimum 20 g/day) are being met. However, there is a lack of high-quality protein-rich food products essential for children's nutrition.

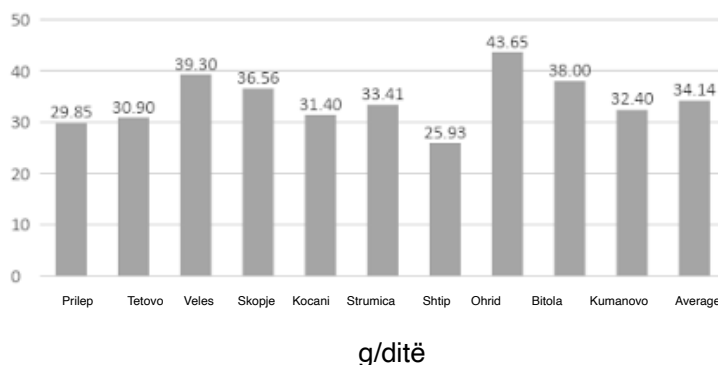


Chart 5: Representation of proteins in nutrition in kindergartens



Nutrient-rich fats, like those from dairy products (milk and dairy products), fish, and eggs, remain insufficiently represented in the daily diet of these children. Given that these children are 4-6 years old and undergoing rapid growth and development, it is crucial to make the necessary dietary adjustments to address this problem. Saturated fats account for 11.4% of the total daily energy intake, which exceeds the recommended maximum of 10%.

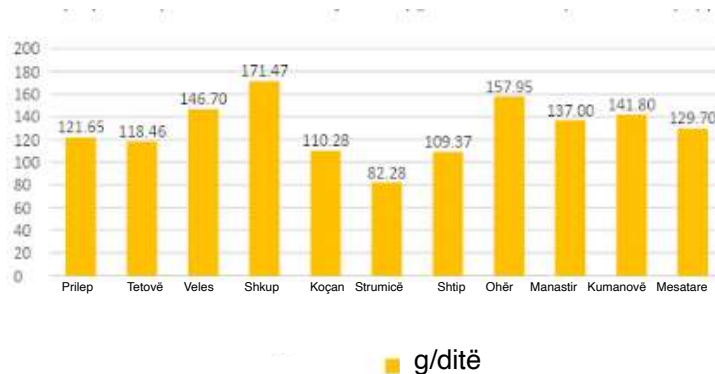
Chart. 6: Representation of fats in nutrition in kindergartens



According to the data obtained, the carbohydrate intake averages 51.0% of total energy intake, which aligns with the recommended range of 50-55%. However, simple sugars represent 20% of the total daily energy intake, almost double the recommended maximum of 10%, similar to 2021. While these simple sugars include fruit sugar from dried fruit and sugar from milk, it does not change the fact that the amount of simple sugars in the daily diet of children in kindergarten is still high.

Although the total carbohydrate intake approaches recommended values, the intake of carbohydrates from whole grains, fresh fruits, and vegetables should be increased due to their higher quality and bioavailability. The intake of simple sugars should be reduced, particularly those from sucrose concentrates.

Chart 6: Representation of carbohydrates in nutrition in kindergartens



Average Daily Intake of Vitamins and Minerals

Vitamins are consumed through the diet in small concentrations, yet they are essential for the body's normal functioning. According to the 2022 data, the intake of most vitamins is adequate, allowing daily needs to be met.

Table 7. Vitamin content

Vitamins	A µg	B1 mg	B2 mg
Average	1066,71	0,57	0,80

Table 8. Mineral content

Minerals	Na mg	Mg mg	Ca mg	Fe mg	Cu mg	P mg	Zn mg
Average	1598,78	165,79	383,19	6,92	0,39	728,42	2,45

According to the results for the mineral content in daily meals, some minerals deviate from the physiological norms for kindergarten-aged children. Calcium, an essential nutrient for development and disease prevention, is below the physiological norms for that age (recommended = 800 mg/day). Zinc intake is three times less than the recommended daily intake for children aged 4-5 years, which should be improved by increasing the intake of meat, fish, eggs, and milk (recommended zinc intake = 6.5 mg/day). On the other hand, sodium intake exceeds recommendations, indicating excessive salt consumption through salty snacks and processed meats (recommended sodium intake = 1200 mg/day).

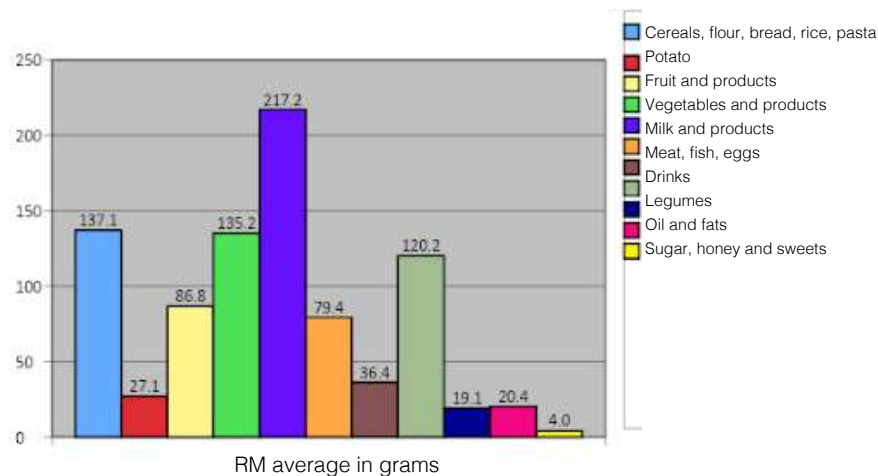
Structure of the Daily Meal for Children Aged 4-5 Years in Kindergarten

The base of the nutrition pyramid includes grains, flour, bread, rice, and pasta, with an average intake of 145 g/day.

Milk and dairy products average 188 g/day, which is similar to the levels seen in 2021.

Fresh fruits and fruit products are underrepresented at 109 g/day, with fresh fruit accounting for 63 g/day, showing a

Chart. 9: Average daily intake of food products in the diet in kindergartens



Based on the information above, the diet of the examined group of preschool children in Macedonia in 2022 does not meet the recommendations for energy intake. Although the macronutrients are balanced, there's room to improve the quality of the foods that comprise the macronutrient intake. Regarding micro-nutrient intake, there is a need to increase calcium and zinc consumption while reducing sodium intake, primarily due to excessive salt in the diet. Additionally, there is a deficiency in the consumption of whole grain products, fish, eggs, and adequate portions of fresh vegetables and fruits.

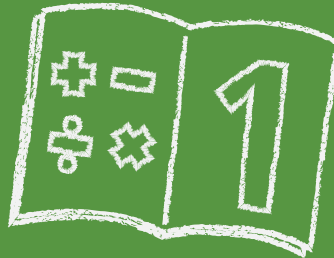
Standards for children's nutrition in kindergartens have been implemented through a by-law, which mandates that kindergarten kitchens adhere to these nutritional quality standards. Since the implementation of these standards, there has been a noticeable improvement in the quality of meals served in kindergartens. However, it is imperative to sustain and continuously improve this progress. Key stakeholders in this process include kindergarten employees and managers, who can significantly influence children's nutritional habits.



3.



Pedagogical Approaches and Nutrition in Kindergartens





3.1 Healthy Eating Habits in Kindergartens

When children start kindergarten, their lives adopt a new routine. Regular meals throughout the day are necessary to keep children active during periods of intensive growth and development. It's essential to offer a variety of foods and regular meals to children in this age group. However, it's also important to let them eat according to their appetite without enforcing adult standards or forcing them to finish everything on their plate.

Allowing children to eat according to their appetite helps them determine how much food they need for activity, growth, and development. Forcing children to “clean their plate” or using sweets as a reward can lead to overeating problems later in life. Adults should let children decide how much food is enough for them, which shouldn't be an issue if a variety of healthy foods are consistently offered.

Start with a small portion and provide more if the child is still hungry. The amount of food a child needs depends on what else they've eaten during the day. Kindergarten meals can teach children new skills and ideas about food outside the home. Children can participate in setting up the lunch table and help prepare healthy meals. Cooking together provides a great opportunity to share positive messages about nutrition, like “milk makes your bones strong” or “bread gives you energy to play.” Healthy snacks for preschoolers are vital for their energy and nutrient intake. What children eat is more important than when they eat. Children who snack on lollipops and chips won't receive the necessary nutrients for good health. At this age, children can eat independently and enjoy the social aspects of eating.

Children's growth and development are critical during this period, so strict or low-fat diets are not recommended, as children have high energy and nutrient needs. If there are concerns about a child's weight gain, it's best to consult a doctor.

The development of healthy eating habits occurs both at home and in kindergarten. Two key elements that contribute to a healthy diet are promoting regular physical activity and limiting screen time. Therefore, it's important to encourage children to be physically active from a young age. Physical activity not only makes them feel good but also fosters a healthy appetite. For children aged 3-6, it's recommended to engage in 3 hours of active play spread throughout the day and limit screen time to one hour or less. The following activities are particularly beneficial:



- Outdoor games in the kindergarten yard or local park
- Walks to the park or playground
- Swimming
- Hiking
- Other activities organized by the kindergarten or parents

During physical activity, children require healthy beverages. Active children need plenty of fluids, and around three glasses of milk a day provide sufficient calcium for bone development. Water should be encouraged throughout the day, while sweetened drinks like juice or soda are unnecessary in a child's diet. Low-fat milk paired with fresh fruit makes for a great afternoon snack.

The following recommendations are significant for children's nutritional intake:

- Grains: Foods made from wheat, rice, oats, cornmeal, barley, or other grains are grain products such as whole wheat, brown rice, and oatmeal are essential.

Tip: Opt for foods containing whole grains whenever possible.

- Vegetables: Consume vegetables often.

Tip: Choose a variety of colorful vegetables, including dark green, red and orange vegetables, as well as legumes such as peas and beans.

- Fruit: Any fruit or 100% fruit juice counts as part of the fruit group.

Tip: Fruit can be fresh, canned, frozen or dried and can be whole, sliced or pureed.

- Dairy products: Dairy products and many foods made from milk are important components of a balanced diet.

Tip: Prefer fat-free or low-fat products that are rich in calcium.

- Proteins: Proteins are essential for nutrition.

Tip: Opt for lean meats, fish, nuts, seeds, peas, and beans to vary your protein intake and reduce fat consumption.

- Oils: Some oils, such as those from nuts, fish and olives, contain essential nutrients and should be included in the diet.

Tip: Avoid saturated fats, opting instead for healthier oil sources.

Choose foods rich in nutrients like calcium, magnesium, potassium, and fiber whenever possible.





3.2 Healthy Eating Habits at Home

A well-balanced diet provides children with the nutrients necessary for healthy growth and development. Proper nutrition and physical activity enable preschoolers to maintain good health and have the energy to grow, learn, and explore. The foundation of healthy eating habits is established and nurtured within the home.

What should parents do¹⁶?

Instilling and fostering healthy habits in a child's diet is not always a quick and easy process. It's important for parents to consistently encourage their children without resorting to coercion or tension. Below, we offer some tips to facilitate this process:

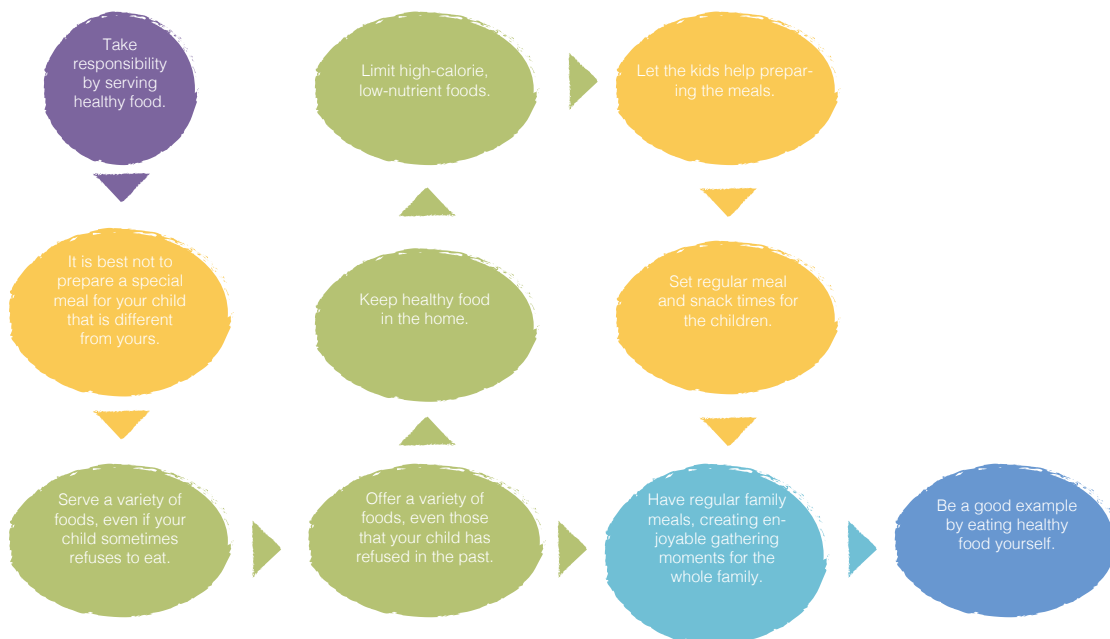



Image no. 1 Parenting Tips

- Take responsibility by offering nutritious foods - while it's fine to include your child's favorite foods on occasion, they don't need to be a staple. Instead, aim for variety. By exposing your preschooler to different foods, you give them the opportunity to explore new tastes.
- Avoid preparing separate meals for your child – this will add unnecessary complexity to meal prep. Additionally, refrain from using food as a reward, as it may lead to negotiations over eating certain foods to earn dessert.
- Offer a variety of foods - even if your child occasionally refuses to eat them. It's natural for children to have preferences, but skipping a meal won't harm their health. If your child chooses not to eat, reassure them that they can eat at the next meal or snack time.

¹⁶ <https://kidshealth.org/en/parents/feed-preschooler.html>



To encourage healthy eating at home, consider the following tips:

- Offer a variety of foods, even those that your child may have previously refused
- Keep healthy food stocked in the home.
- Limit high-calorie, low-nutrient foods.
- Involve kids in meal preparation by assigning them simple tasks, like tearing lettuce or setting the table.
- Establish regular meal and snack times to avoid prolonged periods without food.
- Prioritize regular family meals as enjoyable opportunities for the whole family to gather.
- Lead by example by consistently choosing and eating healthy foods yourself.

It's important to allow children some autonomy over their hunger and fullness cues.

Most children naturally recognize when they are hungry or full and can use these cues to regulate their food intake. Encouraging children to ignore these signals, such as by insisting they eat when not hungry, can disrupt their ability to self-regulate and lead to unhealthy weight gain and related health issues.

3.3 The Impact of Healthy Nutrition on Child Development ¹⁶

A nutritious diet plays a pivotal role in a child's development, influencing physical growth, cognitive function, and overall well-being. The following highlights several key aspects of how nutrition impacts child development:

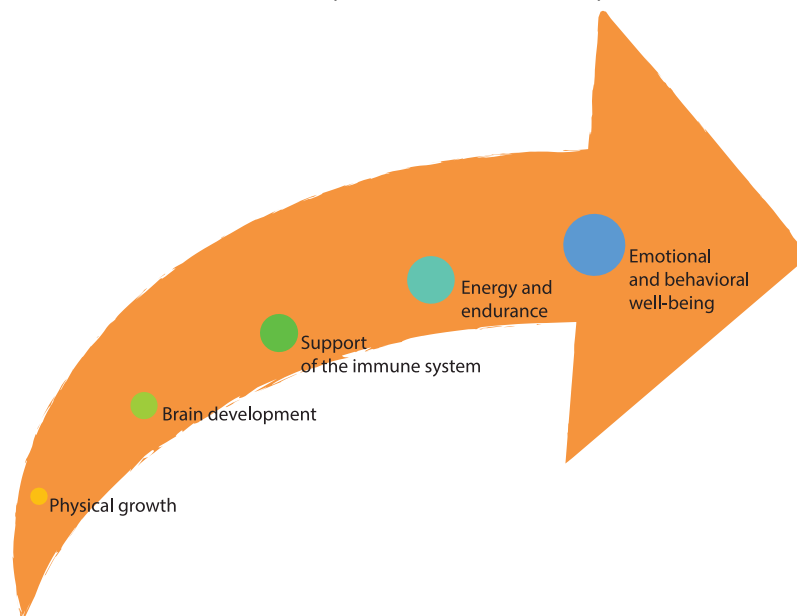


Image no. 2 Aspects of How Healthy Nutrition Impacts Child Development

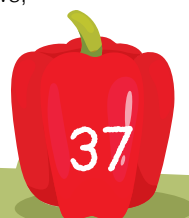
¹⁶ Shah, K. IMPACT OF NUTRITION ON CHILD DEVELOPMENT, 2022
<https://www.linkedin.com/pulse/impact-nutrition-child-development-karishma-shah->



- **Physical growth:** Adequate nutrition is essential for proper physical growth and development in children. Essential nutrients such as protein, calcium, iron, and vitamins contribute to bone development, muscle growth, and overall body structure.
- **Brain Development:** Proper nutrition is vital for optimal brain development and function. Omega-3 fatty acids, found in fish and certain nuts, are particularly important for brain health and cognitive development. Nutrients such as iron, zinc and vitamin B12 also play a role in cognitive function and memory.¹⁷
- **Immune System Support:** Nutrient-rich foods, including fruits, vegetables and whole grains, provide essential vitamins and minerals that support a child's immune system. A well-nourished child is better equipped to resist infections and diseases.
- **Energy and Endurance:** Carbohydrates serve as the body's primary source of energy. Including complex carbohydrates in a child's diet helps maintain energy levels throughout the day. Hydration is also crucial for sustaining energy levels and supporting overall health.
- **Emotional and behavioral well-being:** Nutrient-rich diets have been correlated with enhanced mood and behavior in children. Conversely, diets high in processed foods and sugar have been linked to elevated risks of behavioral and attention issues.

Aspects of healthy eating	Positive effects
Prevention of nutrient deficiencies	Adequate nutrition is vital for preventing nutrient deficiencies, which can have lasting impacts on a child's health. Common deficiencies include iron, vitamin D, calcium, and essential vitamins and minerals crucial for growth and development.
Establishing healthy habits	Early exposure to a diverse range of nutritious foods plays a pivotal role in shaping a child's taste preferences and establishing lifelong dietary habits. Educating children about the significance of a balanced diet fosters a positive attitude towards food and overall health.
Reducing the risk of chronic diseases	A nutritious diet during childhood can significantly reduce the risk of chronic diseases later in life, such as obesity, diabetes, and cardiovascular issues.

¹⁷ Elizabeth L Prado, Kathryn G Dewey, Nutrition and brain development in early life, Nutrition Reviews, Volume 72, Issue 4, 1 April 2014, Pages 267–284, <https://doi.org/10.1111/nure.12102>





Growth, development and learning	Proper nutrition is closely linked to enhanced growth, development, learning, and particularly cognitive abilities. Breakfast consumption has been strongly correlated with improved concentration.
Physical and mental well-being	Good nutrition supports both physical and mental well-being in children, enabling them to actively participate in physical activities, play, and social interactions.

Table no. 10 Positive effects of healthy eating

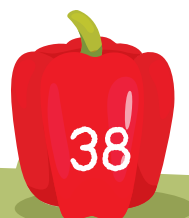
It is important to note that a well-balanced and varied diet, combined with a healthy lifestyle, is crucial for supporting optimal child development. Parents and caregivers should strive to offer nutrient-dense foods, promote healthy eating habits, and seek advice from health professionals for personalized guidance tailored to the child's specific needs.

3.4 Competencies and Life Skills for Healthy Nutrition in Kindergartens

The consequences of unhealthy and healthy eating habits can be significant. Author Karisma Shah highlights the following elements:

Impacts of unhealthy eating habits

Lack of energy and focus: One theory explaining the link between saturated fat and brain power revolves around the effects of glucose and sugars found in high-fat foods. Essentially, glucose is derived from carbohydrates, and while it is needed for energy, foods high in glucose can actually cause energy levels to drop. As glucose is utilized by the body, insulin is produced to process the newly acquired food. Ideally, after a healthy meal, glucose levels should increase slightly, providing the body with energy.





Malnutrition: Recent research has revealed that one-third of surveyed adolescents reported poor eating habits, chronic illnesses, and lower academic achievement. Despite the availability of food for children, inadequate nutrition can impede their development. Not only has junk food been shown to affect academic performance, but research also indicates that poor nutrition influences a child's attitude and behavior, both inside and outside the classroom. Additionally, beyond kindergarten, parents should ensure their children have smaller, nutritious meals and snacks every three to four hours to support healthy nutrition and brain function. Studies have demonstrated that consuming a nutritious snack or meal can alleviate feelings of fatigue and stress within just thirty minutes. Providing children with healthy glucose boosts their energy levels and enhances their focus.



Impacts of healthy eating habits

Increased functionality of the brain: Several studies indicate that nutritional status directly impacts the mental capacity of preschool children. For instance, iron deficiency can hinder the transmission of dopamine, thereby affecting cognitive processes even at an early age. Deficiencies in vitamins and minerals, particularly thiamin, vitamin E, vitamin B, iodine, and zinc, have been shown to impair cognitive abilities and mental concentration. Furthermore, supplementation with amino acids and carbohydrates can enhance perception, intuition, and judgment. Additionally, numerous studies have demonstrated that improvements in nutrient intake can positively influence the cognitive abilities and intelligence levels of preschool children





Behavioral Improvement: Good nutrition is essential for children to maintain good health. Research indicates that malnutrition can lead to behavioral problems, and excessive sugar consumption also negatively affects a child's behavior. However, these effects can be mitigated if children consume a well-balanced diet rich in protein, healthy fats, complex carbohydrates, and fiber. As a result, children will have more energy for activities and experience fewer interruptions in their development and learning. Furthermore, improved behavior can lead to less disruption in the classroom, creating a better learning environment for all children.



Positive educational outcomes: Sociologists and economists have closely studied the impact of a child's diet on educational outcomes and behavior. Overall, researchers have found that better nutrition is associated with improved educational outcomes. Additionally, programs aimed at enhancing children's health have shown positive effects on the development and learning of preschool children.


3.5 Guidelines and Advice for Promoting Healthy Nutrition in Preschool Children

The OECD document titled 'The Future of Education and Skills 2030 - Framework for Conceptual Learning'¹⁸ identifies three categories of competences that address the increasing demand for young people to be innovative, responsible, and aware. These categories include:

- Creating new values
- Resolving tensions and dilemmas
- Taking responsibility

¹⁸ https://www.oecd.org/education/2030-project/teaching-and-learning/learning/skills/Skills_for_2030_concept_note.pdf





The third category of competences, particularly significant for us, is the concept of 'Taking responsibility,' which is directly related to the responsibility for one's own and others' health. In this regard, these competencies need to be possessed and developed by all stakeholders, including professionals in kindergartens and parents. Moreover, they should be instilled in children from the preschool period onwards.

According to the WHO, life skills are defined as 'abilities for adaptive and positive behavior that enable individuals to cope effectively with the demands and challenges of everyday life.' In simpler terms, life skills prepare individuals to live independently and productively in society. Some individuals naturally acquire life skills through daily experiences, such as understanding workplace dynamics or navigating social interactions to maintain friendships.

Life skills can be learned from observing parents and loved ones during their daily routines, allowing individuals to refine these skills through trial and error. However, for some, understanding and acquiring life skills may pose challenges, requiring patience and guidance from others. Educators play a crucial role in ensuring that all young people understand and develop life skills, which are essential for success in their daily lives, greatly influenced by healthy eating and living habits.

The core set of skills at the heart of skills-based initiatives promoting youth health and well-being include:

- Decision making and problem solving;
- Critical and creative thinking;
- Communication and interpersonal relations;
- Self-awareness and empathy; and
- Coping with stress and managing emotions.

Life skills education for healthy living and nutrition, along with kindergartens that promote healthy eating, play a crucial role in reducing poor nutrition.

3.6 Guidelines and tips for promoting healthy eating in preschool children

Promoting healthy eating habits in preschool children is critical for their growth, development, and overall well-being. Here are some guidelines and tips for educators, caregivers, cooks, directors, parents, and representatives of local and central government to promote healthy eating in preschool children:





- Ensure preschoolers consume a variety of foods, including fruits, vegetables, grains, protein sources, and dairy products.
- Incorporate a variety of colors and textures into meals to make them visually appealing.

Portion control:

- Monitor portion sizes based on the preschooler's age and activity level.
- Avoid pressuring children to finish everything on their plate; instead, encourage them to recognize their body's hunger and fullness cues.
- Limit consumption of foods and drinks containing added sugars.
- Reduce intake of sweet snacks, candies, and sugary beverages.
- Opt for healthier alternatives such as fruit, yogurt, or whole grain snacks.

Encourage water consumption:

- Water is the best choice for hydration. Limit sweet drinks and fruit juices.
- Encourage preschoolers to drink water throughout the day.

Model of healthy eating behavior:

- Children often mimic adults' behavior.
- Set a good example by making healthy food choices yourself.
- Aim for family meals whenever possible to create a positive eating environment.

Involve children in meal preparation:

- Allow preschoolers to assist with simple meal preparation tasks like washing fruits or mixing ingredients.
- This can increase their interest in food and willingness to try new things.

Be patient with children who are picky eaters:

- It's normal for preschoolers to be picky eaters.
- Offer a variety of foods over time.
- Introduce new foods gradually, in a positive and unforced manner.

Promote healthy snacking:

- Offer nutritious snacks like fresh fruit, vegetables, cheese, or whole grain crackers between meals.
- Limit the availability of unhealthy snacks and sweets in the house.





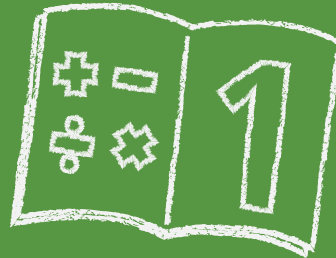
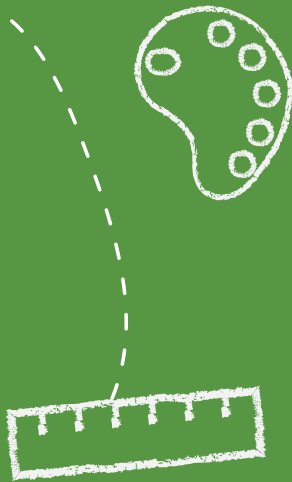
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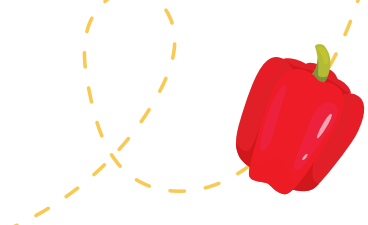
Remember that every child is unique, so it's important to be flexible and adaptable in promoting healthy eating habits. Encourage a positive attitude towards food and make the process enjoyable for the child. If you have specific concerns about your child's diet, consult a healthcare professional.



4.

Conclusion





Proper nutrition not only fulfills existential energy and nutritional needs but also serves an educational purpose by instilling hygienic, correct nutritional, and social habits. Organized nutrition in kindergartens enhances children's socialization, improves interpersonal relationships, and reduces the development of nutrition-related disorders.

The preschool period is pivotal for establishing healthy habits. Through education and the implementation of a balanced diet, we can introduce young organisms to a healthy lifestyle and minimize the risk factors for diseases later in life.

Educators play a crucial role in introducing children to a variety of topics through kindergarten's educational programs. One of the most important topics is teaching children about healthy food choices, laying the foundation for a better life. The first step in this direction is for children to become familiar with the food pyramid and acquire healthy eating habits, even in preschool age.

The second part of the manual, titled "Magic Plate," provides practical tools and guidance to help educate children in this regard. The manual offers insights into building children's confidence and providing them with the knowledge necessary to make healthy choices.

The approach to offering healthy food to children is crucial. Children are more likely to embrace healthy food when it is presented in an attractive and engaging manner. Stimulating all their senses encourages them to explore and understand healthy food, fostering lifelong healthy habits.

As professionals, you have the opportunity to creatively enrich activities and adapt them to your kindergarten's specific conditions to impart knowledge to children aged 3 to 6 years. We encourage you to utilize the resources and information provided in the next section, as well as create your own, tailored to your micro-environment, to foster an environment beneficial to children and families in your community.



Practical Part – The Magic Plate





5. Introduction

The practical section of this manual aligns with current scientific knowledge and modern pedagogical approaches in the context of promoting healthy eating habits. It is designed for educators and parents, recognizing their roles in shaping children's lifestyles, particularly in relation to nutrition. This segment offers an opportunity to acquire new, contemporary, and relevant knowledge, skills, and abilities, building upon the Early Learning and Development Programme. In this regard, the modern concept of kindergarten functioning and the parental role represents a contemporary perspective that emphasizes action over rhetoric, advocating for a behavioral model and lifestyle that inherently prioritizes awareness of healthy eating habits.

The development of the contents and activities presented in this section aims to enhance the capacity to create an environment where the importance of healthy eating is naturally emphasized. The theoretical content supports the development of knowledge and approaches to healthy eating, drawing from global research and theories. Activities serve as a creative means to translate theory into practice. Given the lack of materials addressing this issue in our country, the provided activities are a valuable resource. Additionally, we view these activities as an initiative and source of inspiration for educators and parents to engage in ongoing reflection and creation of authentic activities. Healthy eating, being a topic that continually offers new insights and practices, underscores the importance of an open and developmental approach. While these activities can be conducted in group settings, their individualized nature allows for adaptation to each child's unique needs and parameters for a healthy diet.

In this regard, it's important to highlight that the practical section of the manual provides both pedagogical and didactic-methodical approaches for kindergarten work. These approaches are aligned with the contemporary trend in preschool education, emphasizing the open curricular dimension.

The content presented in this section is carefully crafted to offer theoretical and practical approaches that are sensitive to the developmental characteristics and capabilities of preschool-aged children.



The practical part covers topics related to:

- Healthy food and healthy habits
- Teaching and cultivating healthy habits in children for a wholesome life
- Encouraging the learning and development of healthy eating habits among preschool-aged children
- Strategies and planning of educational activities aimed at fostering healthy eating habits among preschool-aged children

Practical activities on the topic of healthy eating include:

- **Topic 1: The Five Best Friends**
- **Topic 2: My Magic Plate**
- **Topic 3: Food and My Body**
- **Topic 4: Healthy Body, Healthy Spirit – Exercises Every Day**
- **Topic 5: Healthy Living**

The topics presented in this manner offer a substantial foundation for educators in kindergartens, as well as for parents, to address this subject effectively. An additional benefit of the conceptual and content approach of part 2 lies in its potential for practical application, including alignment with key strategic documents, processes, and educational objectives.

In this context, global trends aim to create conditions for safeguarding the planet, fostering prosperity for all, and enhancing the quality of life and education. The Convention on the Rights of the Child guarantees every child's right to growth and development, mandating states to support parents through appropriate institutions and services to facilitate each child's development. In 2015, the United Nations established a set of goals as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years, with responsibility lying with governmental and non-governmental sectors, educational institutions, and individuals alike.

The issue of healthy nutrition is integral to several goals for sustainable development. Indeed, the practical section of the manual addresses this concern from various perspectives, aligning with the following goals:

- Goal 2: Zero hunger;**
- Goal 3: Good health and well-being;**
- Goal 4: Quality education;**
- Goal 6: Clean water and sanitation;**

On the other hand, if the goal of education in many European countries is to nurture healthy and happy children, then this section brings us closer to achieving



that objective by establishing a framework that enables parents and educational institutions to create conditions for healthy eating, thus providing opportunities for personal choice for children, parents, and educators. It is a path where smiling, happy, and healthy children can learn, grow, and develop, both at home and in kindergartens.

This vision and purpose outlined in part 2 of the manual guide its users and aim to establish high-quality environments for healthy nutrition, offering the opportunity to ensure a quality childhood both at home and in kindergartens.



6.

Healthy Food + Healthy
Habits = Healthy
Children





6.1 Learning and Developing Healthy Living Habits in Children

Kindergarten teachers and caregivers, as well as parents at home, play an important role in helping children learn about food and develop healthy living habits. The eating habits formed in childhood often persist into adolescence and adulthood. The period from ages 3 to 6 is particularly crucial for supporting the development of children's relationships with food. The more knowledge we acquire about food and nutrition during this stage of life, the better equipped we will be to maintain healthy eating habits as adults.

Recognizing the significance of healthy nutrition in child development, it is advisable to incorporate it into daily practices within the kindergarten. This includes not only offering nutritious food options but also integrating healthy eating habits into daily routines. By linking these practices with real-life contexts and presenting them in engaging and enjoyable ways, the process of understanding and adopting healthy living habits among preschool-aged children is facilitated.


By gaining knowledge about nutrition and healthy eating habits during the critical period of development and learning, children are expected to make informed food choices and adopt a physically active lifestyle

6.2 How to Encourage Learning and Developing Healthy Eating Habits in Preschool Children?

While there are numerous books, picture books, and pieces of advice available on teaching preschool children the importance of healthy food and eating habits from an early age, many of them tend to be either overly technical or overly general. As a result, it can be challenging to determine where and how to begin. Experience has shown that children are eager to learn about food, but they require engagement through various means. This includes activities such as reading picture books, cultivating healthy food in kindergarten gardens, singing songs about healthy eating, or simply involving them in selecting and preparing nutritious meals.

To assist you, we have compiled a practical section comprising workshops tailored for children aged 3 to 6 years in kindergartens. It is primarily designed for educators, caregivers, and parents/guardians to concentrate on educating preschool children about topics related to healthy eating. This aims to offer children opportunities to gain knowledge and initiate the development of habits and attitudes towards a healthy lifestyle, which will have immediate and long-term implications in their personal and family lives, as well as within the local community.





The practical section comprises 5 topics that encompass relevant content along with practical activities aimed at achieving the expected learning outcomes regarding food and nutrition for preschool children, as well as fostering habits for a healthy lifestyle. For each workshop, several activities are provided that integrate nutrition education across all aspects of child development, including socio-emotional development, physical health and motor skills, language, communication and literacy, as well as cognitive development and acquisition of general knowledge.

The proposed workshops are designed to offer flexibility in planning and implementing topics, content, and activities related to healthy eating and fostering habits for a healthy lifestyle. You have the freedom to adjust the workshops in terms of format and duration based on your assessment of the capabilities, needs, and interests of the children in your educational group, as well as your previous practical experience. Depending on the conditions for implementing the activities, the prior knowledge and skills of the children, and their interest in specific content, you can adapt the time needed to cover the various topics presented in the workshops.

By showcasing various activities that you can incorporate into your workshops, we aim to inspire all educators, caregivers, and parents to create numerous additional engaging activities for children. These activities could serve as exemplary practices from which anyone privileged to spend time with children during moments of exploration, discovery, and learning about healthy food can draw inspiration. Early childhood is a critical period for instilling healthy eating habits, and when adults participate alongside children, it presents a wonderful opportunity for shared reading, exploration, discussion, and imagination-building. This not only enriches their vocabulary but, most importantly, helps establish healthy lifestyle habits.

This manual is intended for use by educators, caregivers, parents, and anyone else who interacts with children for both study and play. Therefore, throughout the manual, we address educators, caregivers, and parents interchangeably, and the activities can be conducted with children both in kindergarten and at home. The workshops provided in this guide can assist you in developing a deeper understanding of children by engaging them in discussions about healthy eating, playing games, fostering their confidence and self-awareness, and emphasizing the importance of maintaining a healthy diet and lifestyle.

We hope that this handbook will inspire and challenge you to further develop your practice in line with modern pedagogical trends in preschool education.

The Health Belief Model (intended for educators, caregivers and parents)

The Health Model ²⁰ is a theoretical framework that professionals in kindergartens can utilize for health promotion and disease prevention. It is employed to elucidate and forecast individual shifts in health behaviors. This model stands as one of the most utilized approaches for comprehending behavior related to health, serving as a foundation for a healthy lifestyle that should be embraced by adults and also encouraged and instilled in children.”

MODEL FOR FAITH IN HEALTH

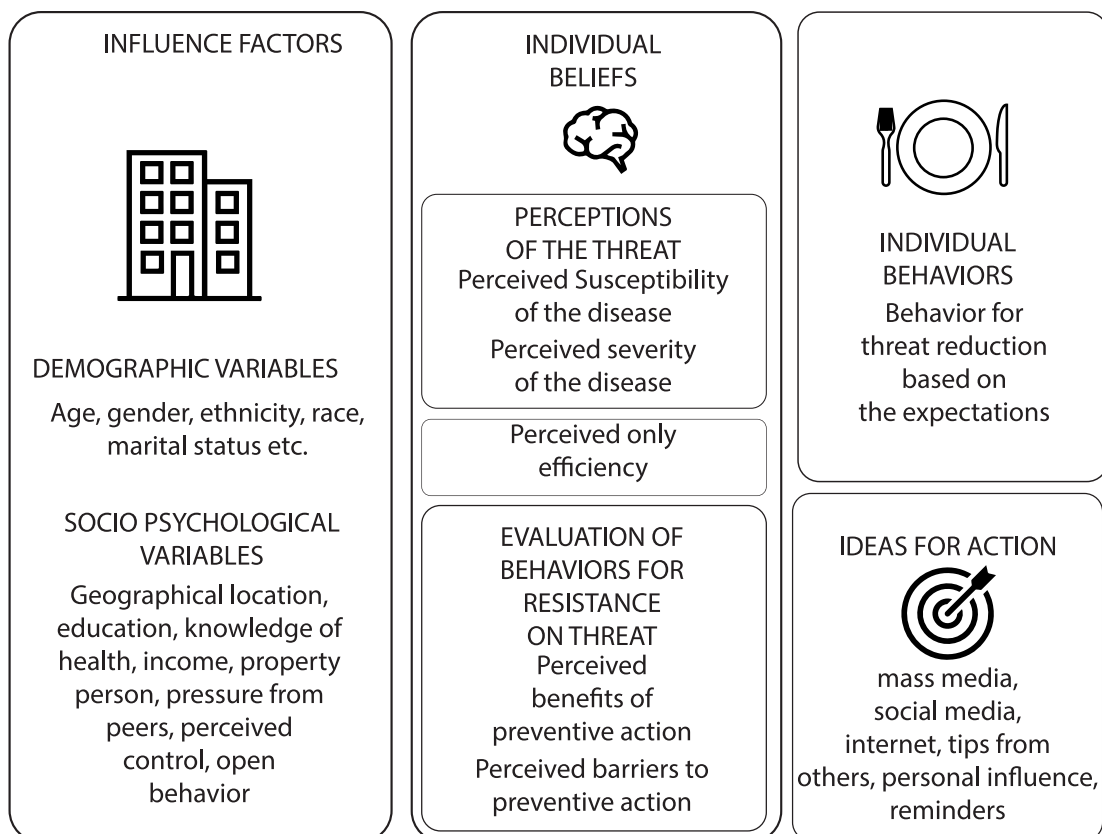


Image no. 11 The Health Belief Model

20 <https://sphweb.bumc.bu.edu/otlt/mphmodules/sb/behavioralchangetheories/behavioralchangetheories2.html>



This model is derived from psychological and behavioral theory, considering the two components of health-related behavior: 1) the desire to avoid illness or, conversely, to recover if one is already ill; and 2) the belief that certain health behaviors will prevent or cure disease. It's the second component that should be the focal point of the work of professionals in kindergartens.

6.3 Strategies and Planning Educational Activities for Forming Healthy Eating Habits in Preschool Children

Educators can plan educational activities to promote healthy eating and instill healthy habits in kindergarten children throughout the year. Here are some strategies for teaching and learning about nutrition in kindergarten:

1. Interactive Activities:

Engage children in hands-on activities like cooking sessions or food tasting to help them learn about various food groups. Incorporate games and interactive exercises to make learning about healthy eating enjoyable and memorable.

2. Storytelling and Books:

Utilize children's books such as "The Beetroot Tale" or "Little Red Hen" that emphasize healthy habits and nutrition. Reading stories can make the learning experience more captivating for young children. Establish a routine for storytime where you share books highlighting the importance of a balanced diet.

3. Visual Aids:

Utilize visual aids like fresh fruits and vegetables, as well as posters, charts, and cards to help children recognize and remember different healthy food items. Create an engaging environment with colorful displays that promote healthy eating habits.


4. Gardening:

Set up a small garden or planter boxes where children can plant and care for fruits, vegetables, and herbs. This hands-on experience allows them to understand the origin of food. Integrate gardening activities with lessons about the significance of fresh produce in a nutritious diet.

5. Role-Playing:

Incorporate role-playing activities where children can pretend to be cooks, farm-





ers, or market workers. This enables them to grasp the journey of food from farm to table. Encourage imaginative play in settings like kitchens or grocery stores to reinforce the importance of making healthy food choices.

6. Pyramid Model or Food Plates:

Introduce the concept of a balanced diet using simplified visuals like the food pyramid or educational video on healthy eating (to access the video, click the link).. Teach children about the various food groups and their significance in maintaining overall health. Discuss portion sizes and the importance of incorporating variety into meals.

7. Parental Involvement:

Engage parents in nutrition education by providing resources and information to promote healthy eating habits at home. Organize workshops or information sessions for parents to establish a unified approach to encouraging good nutrition in children.

8. Cooking Demonstrations:

Conduct simple and safe cooking sessions within the kindergarten. Involve children in age-appropriate cooking activities to teach them basic food preparation skills. Highlight the nutritional value of ingredients used in these cooking activities.

9. Consistent Modeling:

Serve as a positive role model by consistently making healthy food choices in the presence of children. Children are more likely to adopt healthy habits when they observe adults practicing them. Emphasize that nutritious food contributes to growth, energy, and overall well-being.

10. Integration into Daily Routine:

Incorporate nutrition discussions into daily routines, such as during snack or meal times. Use these opportunities to discuss the nutritional benefits of the foods being consumed. Establish a routine where children actively participate in setting up and cleaning up snack or meal areas, fostering a sense of responsibility and connection to food.

Remember to tailor these strategies according to the age and developmental stage of the children, and always prioritize safety and age-appropriate activities. Creating a positive and enjoyable learning environment for understanding good nutrition can establish the groundwork for lifelong healthy habits.





The examples provided offer opportunities for children to:

1. Stay actively engaged: Children will be introduced to new concepts about food and nutrition, fostering curiosity and connecting with their prior experiences and knowledge.
2. Explore: Children gain new experiences about food and nutrition through hands-on activities that enable them to explore, experiment, and observe.
3. Express: Children articulate their understanding of new concepts while educators convey information, provide feedback, and clarify any misunderstandings.
4. Showcase the outcomes of the activities: Children connect and apply what they've learned about healthy food in their daily lives.

Creating a stimulating environment

To effectively encourage learning and the development of healthy habits in children, it's essential to establish a safe, educational environment that captures their attention and stimulates their interest. A modern-day kindergarten places children at the center, considering their various developmental aspects, individual needs, pace of learning, and diverse learning styles. Educational activities implemented in such kindergartens to cultivate healthy habits are flexible and adaptable to children's specific requirements, starting from their interests and building upon them. Motivation to learn is intrinsic, fostered by active learning methods that promote learning through personal experience and discovery.

In the 21st-century kindergarten, parents, or families, are regarded as partners who actively participate in planning and implementing educational activities, particularly those related to healthy living.

When establishing a stimulating learning environment, the educator begins by:





- Acknowledging and respecting the interests of children.
- Recognizing and honoring individual abilities.
- Considering personal learning styles.
- Valuing the cultural backgrounds of all children.

These options offer a diverse array of opportunities that accommodate individual interests and learning preferences.

A broad spectrum of possibilities entails:

- Varied approaches to activities.
- Diverse materials for utilization.
- Versatile environments.
- Various forms of collaborative interaction.

Crafting a stimulating environment in the kindergarten can profoundly contribute to the development of healthy habits in children.

Here are a few suggestions for creating such an environment:

- In learning centers, place toys and learning materials related to healthy food: Ensure these items are easily accessible and appealing to children. This can motivate them to engage with the materials and learn through play.
- Offer a variety of toys and activities for physical exercise: Encouraging physical activity helps children stay active and enhance their motor skills.
- Establish a garden in the kindergarten: Incorporating gardening activities allows children to learn about planting and growing fruits and vegetables. This hands-on experience promotes understanding of healthy eating and fosters a connection to nature.
- Arrange games and activities that encourage teamwork: Cooperative activities teach children the value of working together and effective communication.

Support creative expression: Provide materials for drawing, painting, and crafting with fruits and vegetables. Create a space where children can freely express their creativity.

By planning enjoyable activities for children throughout the kindergarten, including learning centers, halls, playgrounds, and kitchens, you can create a stimulating environment where children can learn and develop in a fun manner, ultimately fostering the formation of healthy habits.





Remember that it's crucial for the educator to create an environment and atmosphere in the kindergarten where children feel free to express their own opinions, believe in themselves, in the educator, and in their peers, to employ various methods, involve children in decision-making, encourage cooperation, respect others, and be happy.

Inclusivity, gender equality/sensitivity, interculturality, and integration of educational areas/aspects of development

The subjects/topics through which children learn about healthy eating offer educators an exceptional chance to promote inclusivity by engaging all children in educational activities throughout the day. This ensures that each child becomes cognitively and emotionally involved through the application of suitable strategies. When working with children with disabilities, tailored activities are designed based on their unique needs, capacities, and skills. Consistently monitoring all children, particularly those from vulnerable demographics, facilitates the timely identification of developmental and learning challenges. This enables educators to motivate and assist each child in realizing their maximum potential in development, learning, and the adoption of healthy lifestyle habits.

When carrying out activities, the educator treats boys and girls equally, ensuring that gender-stereotypical roles are not assigned in educational activities. For instance, avoiding scenarios where only girls are assigned cooking tasks in the family-drama center, while boys are tasked with fixing appliances in the constructive center. When forming groups for work in learning centers, aim to achieve a gender balance. When selecting additional materials for educational activities, utilize illustrations and examples that are gender and ethnically/culturally sensitive. This approach promotes gender equality and fosters intercultural understanding.

While this guide emphasizes learning about healthy eating and fostering healthy lifestyle habits, it's advisable for educators to consistently plan for the integration of educational areas/aspects of development using thematic content throughout their educational activities. Integration supports the holistic development of children, linking what they learn in these activities with knowledge and skills from various developmental areas/aspects. Simultaneously, the acquired knowledge and habits for healthy eating should be applicable in everyday life



7.

PRACTICAL
MATERIALS FOR
EDUCATORS






Dear educators,

Now that we've refreshed our knowledge and learned new insights about healthy eating, we feel empowered and motivated to share this with the children. As professionals in the field, we understand the significant impact we can have on shaping children's and their families' attitudes towards nutrition and its importance for health. This is the opportune moment to impart knowledge, skills, and a newfound enthusiasm for learning about healthy food, perhaps in a slightly different manner than before.

The **"Magic Plate"** serves as a gentle and accessible guide, facilitating children's exploration of nutritious foods, their health benefits, and their role in shaping the lifelong wellness of future adults.

On this journey of awareness and habit formation, it's crucial to consider the diversity among children and the varied backgrounds they come from. This manual, with its inclusive approach, allows for this consideration. The selection of content and the level of activities you offer to the children should be based on your assessment as a teacher, respecting their abilities and specific interests.

Relax, and enjoy the process with the children. Embrace teaching with pleasure, using the suggested content as a springboard for your and the children's imagination and creativity. See it as a flexible framework with ample room for exploration. It's simple and straightforward - we'll be delving into something that's part of our everyday lives, something incredibly significant: food. It has the power to nourish us, help us grow stronger, but also, if not chosen wisely, it can harm us. The choice is yours!



It's time for a story to
immerse us in the
enchanting world of magic plates...





Once upon a time, there were two friends named Lena and Sami. They were extremely active and loved to play and run around. However, after their play sessions, they often indulged in sweets, snacks, and hamburgers, which left them feeling exhausted and unable to take another step.

“Ugh, my stomach hurts. It feels like I ate a truckload of food,” Sami groaned, clutching his stomach.

“Samiii, do you know how I feel...I feel like a little pig when she eats anything and everything!” Lena lamented.

This scenario occurred frequently. Lena and Sami were constantly preoccupied with thoughts of what they would eat next, pondering new snacks and indulging in sodas.

“Hey, Lena, look, see how the bubbles are flying in the bottle... oops!”

“They’re flying, they’re flying, and they’re flying into my pocket... it’s getting really difficult for me. We’ll have to go to the doctor!”

And indeed, the two friends, who had been overeating, visited their doctor. What do you think the doctor told them? Well, naturally, they were advised to stop filling their stomachs with such unhealthy foods. The doctor also recommended they should eat a “FULL PLATE OF HEALTHY FOOD”...

Lena and Sami left the doctor’s office feeling pensive and somewhat amazed. A full plate of HEALTHY FOOD?! What exactly is healthy food? How is it eaten? Does it upset the stomach? Does it make you tired and unable to play? The children had a myriad of questions...

Each of them went home, and that evening, they had the same dream. They dreamed of a beautiful, large plate upon which five faithful friends were standing...

“And who are you?” Lena and Sami exclaimed in unison.

Then, the PLATE spoke: “We are your faithful friends! I am the magic plate, and you will discover why I am magic for yourselves. Now, let me introduce you to my 5 friends!”

LENA



SAMI

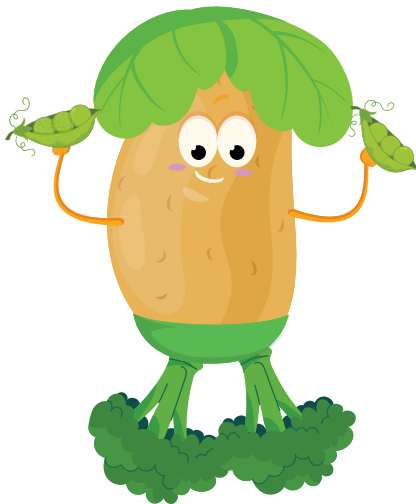




"This is the first one, Lute-Fruit... he brings you various fruits brimming with healthy sugars and vitamins! With hair made of blueberries, a body of ripe apples, and banana shoes!"



"The second one is Cole-Vegetable... he wholeheartedly brings you different vegetables for delicious salads packed with minerals and vitamins! With a cabbage cap, a potato body, two broccoli legs, and hands full of peas and green beans... mmm!"



"The third one is Jane-Grain... she gives you your favorite macaroni, spaghetti, rice, all made from whole grains... mmm, we'll discuss that a little later. Jane-Grain has spaghetti hair, a body of whole wheat bread, a pretzel nose, and tortilla shoes... yuhuuuu, she gives you strength!"

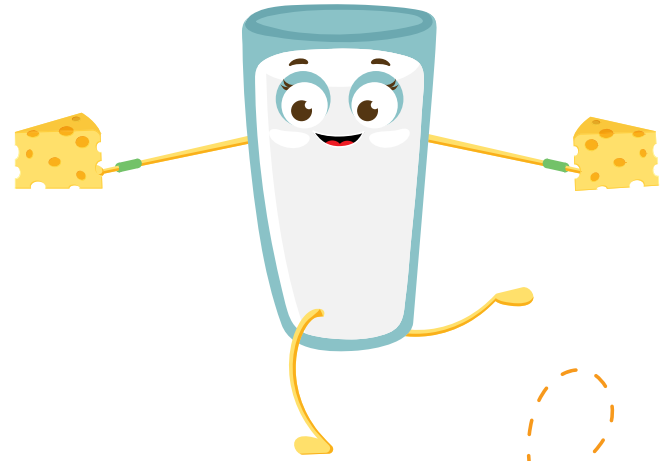


"The fourth one is Aileen-Protein... she gives you strength to play all day long. She will nourish you, and from her gifts, you will grow big. And here's what she brings you: a mussel, plenty of fish, an egg, almonds, hazelnuts, beans, lentils... mmm!"





“And lastly, the fifth friend, Will-Milk... you can sense he will give you strength with his white milk, yogurt, delicious curd, and cheese with small holes. He has the body of a yogurt cup, and his legs are like two pieces of cheese... he’s beautiful!”



After presenting the five best friends, the plate conveyed this message to Lena and Sami...

“And now, I want to tell you something important. If you want to be healthy, have the strength to play and grow up, and for your brain to remember and learn everything, all your plates should be magical like mine, carrying all five faithful friends: fruits, vegetables, grains, proteins, and dairy products!” The plate said this with a big smile before soaring high into the sky.

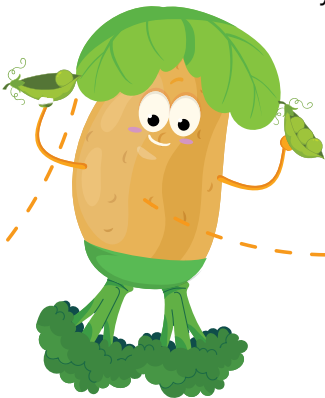
The next day, when Lena and Sami met, everything clicked into place for them. They knew exactly what steps to take. And do you know what they decided?





TOPIC 1: THE FIVE BEST FRIENDS

Expected outcomes: Children recognize the fundamental benefits of consuming fruits and vegetables, including their growth origins and proper consumption methods. They are able to differentiate between animal and vegetable proteins, understanding their respective health benefits. They can explain the process of obtaining milk and milk products and their benefits for growth. They can distinguish between whole grains and refined grains, understanding the importance of prioritizing whole grains in the daily diet. They identify and comprehend the concept of the food pyramid, and can describe it accurately, explaining the distinction between healthy and unhealthy meals.



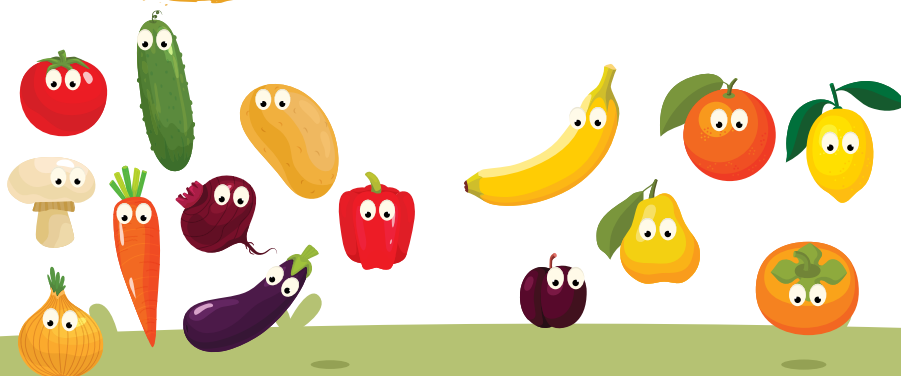
WORKSHOP 1: Fruits and vegetables

Resources (required material): a basket of various fruits and vegetables, a poster of rare types of fruits, a poster of rare types of vegetables, the story “Lena and Sami eat peas”, and the story “The Magic Plate”

Workshop content:

1. Children readily recognize the content related to fruits and vegetables, allowing us to delve deeper into this topic, tailored to the children’s age group.

-WHY is better to eat fruits in the morning?
BECAUSE the vitamins and minerals in the fruits are best used in the morning. This is how health is preserved!
-WHY we should not eat fruits after meal?
BECAUSE there is no schedule for when we should eat fruits, but fruit should be consumed between meals two to four times a day in small amounts.





With the younger children, we will focus on naming and discovering the colors and shapes of fruits and vegetables, while with the slightly older ones, we can delve into exploration. This approach will promote experiential learning among children.

2. We will discuss fruits and vegetables while having a basket of assorted fruits and vegetables in front of us. We'll ask questions and patiently await answers. Let's recall which other fruits are companions of LUTE FRUIT ("The Magic Plate") and belong to the Fruit family.

* And which other vegetables are companions of COLE VEGETABLE ("The Magic Plate") and belong to the Vegetable family?

What distinguishes fruits from vegetables? (emphasizing the importance of vitamins and minerals)

What are the flavors of fruits and vegetables like? Let's taste some fruits from the basket!

3. Show the children a large poster featuring various rare and lesser-known fruits and vegetables, such as passion fruit, chokeberry, lime, Japanese apple, medlar, sweet potato, daikon, celery, and others that you believe may be unfamiliar to the children. Let's learn their names and describe them together!



4. After completing this part, take a break with an active game called "Picking Fruits and Vegetables with Lena and Sami." Explain to the children that they should mimic your movements. The game will be guided by the adult with movements corresponding to the content you want to convey to the children. The instructions you can use might be as follows:

It's story time: *One day Lena and Sami decided to pick and eat fruits and vegetables. "Samiiii, let's eat vitamins," said Lena to Sami. "And where do we find the vitamins, at the pastry shop?" "What are you talking about? Vitamins and minerals are in apples, carrots, watermelon—they grow in fruit and vegetable gardens!" Sami exclaimed. "Come on, friends, let's go pick fruits and vegetables," he continued, leading the way with dramatic steps, followed by the children. "Oooo, what a sunny day! Let's salute the sun!" Sami raised his hands high, bringing his palms together and stretching. "Let's go... Here's the apple tree, full of red apples, mmmm, let's pick them!" Sami rose on his*



toes, reaching high to mimic “picking” apples. “Oh, how beautiful they are! Let’s try them, mmmm, they’re delicious, full of vitamins... Now, friends, let’s go to the vegetable garden and pick carrots.”

As they approached the vegetable garden, Sami asked, “Where do carrots grow in the garden?” After letting the children give ideas, they found the carrots. “Now that we’ve collected carrots, let’s wash them,” Sami imitated washing, “let’s peel them,” he imitated peeling, “and finally eat them.” After enjoying the fruits and vegetables, they exclaimed, “Wow, how delicious they are! I feel strong; let’s jump like bunnies!” Lena suggested, “Oh, Sami, I wish we could pick all the fruits and vegetables in the world!” Sami responded excitedly, “Lena, how about we make our own gardens in the kindergarten, and maybe even at home on the terrace?” “Great idea! Friends, what do you say to this idea?”



5. In the latter part of the workshop, create an improvised garden using plastic cups filled with soil. Plant various seeds in each cup to simulate the process of gardening. This activity aims to develop the concept of a real garden in the kindergarten’s yard.

IDEAS...IDEAS...IDEAS ...

- Do research on the composition of fruits and vegetables. These activities involve using various tools such as tweezers, toothpicks, rulers, and scales. With these tools, we will examine the seeds, peel, and compare different aspects such as size and weight of various parts of the fruit.
- The game of constructing a building from fruits and vegetables is also interesting. The “building material” consists of bricks made from empty milk or juice cartons with pictures of fruits and vegetables attached to them. Children compete in building the fruit and vegetable tower.
- A dramatic game in which children are divided into two teams: a fruit team and a vegetable team. Each team engages in a conversation to present its good sides and introduce itself.
- Cooking a fruit or vegetable salad, as well as fruit and vegetable skewers, can be a great way to conclude the activity centered around these two types of food.
- Here’s an idea on how to encourage children to eat healthy food that may not be their favorite: we can share this story during lunchtime when peas are on the menu!





Recipe Silent soup

- 500 gr. pumpkin
- 1 liter of water
 - 2 carrots
 - 2 potatoes
 - 1 leek loin
- 4 spoons of cream
 - salt
 - oil
- Boil all the ingredients, except the sour cream. They are blended, oil and salt are added and boiled briefly. It is served on a plate and a little cream is added. CHEERS!

It's story time

LENA AND SAMI EATING PEAS

SAMI: Mmmm, I really want to eat peas!

LENA: Uffff, I don't like them at all...

SAMI: Imagine, Lena, when I eat peas, it's like having a big football field in my mouth. The players - my molars - push the pea ball left and right until finally, one of them bites it, and it quickly goes into the goal - my throat. The pea ball happily arrives in my stomach, and suddenly, all the little vitamins and minerals from the pea start spreading everywhere, giving me a lot of strength and making me healthy.

LENA: Hmm, let's pretend these peas are the ones used for playing football!

PARENT'S CORNER

Make shopping with the children an interesting and educational experience. For instance, when you visit the market or the garden section, engage the children in conversation about the fruits and vegetables. Encourage them to participate actively by asking what's in each item, allowing them to count, touch, smell, and even help with packing. By turning it into an interactive experience, what might have been a mundane task for the daily becomes an enjoyable

POINTS OF INTEREST THE PEA ASKS US:

What's in me?

Vitamins and minerals: iron, magnesium, B vitamins, and most importantly, I have vegetable protein!

How do I help the body?

I grow my body, build my muscles, bones, skin, hair, nails. I make you full, and it is enough for you to eat just one handful of my green balls.

AND WE SAY:

Motivate me to eat peas.....

- it grows and develops with it
- your hair grows faster
- you become strong with strong bones and muscles
- you can run fast
- you are full, and hence you are happy

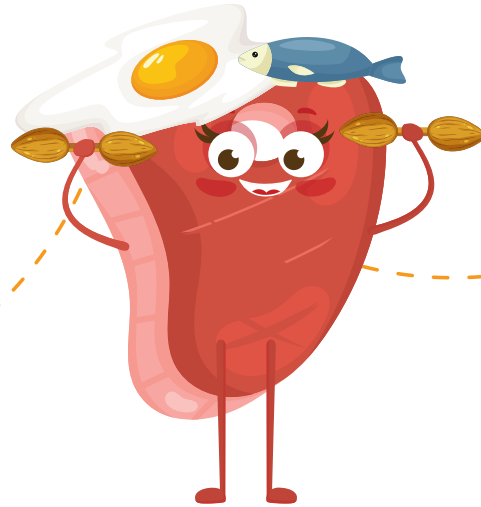
Vegetables are eaten:

fresh or cooked, in salad, frozen, canned, whole, chopped or crushed.....
Each type of vegetable in a conversation with the children "pass it" through all the ways.....

For example: PEPPER
In the salad, stuffed peppers, frozen beans, peppers in a jar for the winter, pinjur, ajvar...



WORKSHOP 2: Proteins (of animal and plant origin)



Resources (required materials): Poster with illustrations of animal proteins, poster with illustrations of plant proteins, story “The Magic Plate”, cardboard cut-outs of pans, appliques of “Sunny side up”, slices of onions, olives, mushrooms, etc., a large cardboard cutout of the human body, and illustrations of animal and vegetable protein foods.

Content of the workshop:

1. Briefly remind the children of the character Aileen Protein from the story “The Magic Plate” and continue with a new stimulating story that will be a good introduction to the contents of the importance of proteins for the growth and development of the child’s body.

WHY are proteins important?

BECAUSE proteins are made of amino acids which are the “building blocks” of life - our bodies grow from them.

WHY are plant proteins important?

All the amino acids found in meat, animals get them from plants. Therefore, it is important to include both plant and animal proteins in the human diet.

It’s story time: One beautiful day, Lena and Sami went to visit their friend Aileen Protein. Aileen was delighted and treated them to a plate containing boiled eggs, meat, some beans, cucumber, and carrots on wheels. Lena exclaimed, “Aileen Protein, could you tell us how you selected these delicious foods to treat us?” Aileen scratched her head thoughtfully and replied, “Hey, these are a few things that contain protein!” “Proteins? What are those?” asked Sami, looking a bit puzzled as he took a bite of the meat. “Proteins are like bricks, the builders of all living things!” Aileen explained. “They help us grow, strengthen our muscles, and provide us with energy for the entire



day!" she added proudly. "Now, let me show you something." Aileen pulled out two albums, one pink and the other green. "Lena, Sami, let's start with the pink album," she suggested. Lena eagerly flipped through the pages and identified the pictures. "Eggs, chicken steak, meat, tuna, and other fish meat, burger... these are animal proteins, friends. They are provided to us by animals." Aileen then directed their attention to the green album. Sami turned the pages and listed the items. "Almonds, hazelnuts, peanut butter, beans, lentils, different seeds... Wait, aren't these from your family too, Aileen?" he asked. "Yes, indeed, these are plant proteins, and we obtain them from plants!" Aileen confirmed. "Lena, Sami, there's so much we can explore and learn about proteins. Let's do it together, my friends!"



2. The panels with images of the two types of protein will help us to understand the benefits of protein for health. Let the children think about the following questions:

*Which type of protein do I eat/prefer more?

*Name one dish that has plant and animal protein (consult the pictures from the panel for help)

*What does chicken steak taste like, what does almond taste like, what do beans taste like?

3. The children are seated in a circle, with a large illustration of the human body placed in the center, surrounded by small pictures of different types of proteins. We initiate a discussion about why proteins are considered the "bricks" that build the body. Encourage the children to think and explain which parts of the body are strengthened by proteins, such as muscles, bones, hair, and nails. Then, the children place the small pictures of protein-rich foods on the corresponding parts of the body that they believe are strengthened by proteins.

4. We recall Aileen Protein's explanation about plant proteins, listing them: lentils, beans, various seeds, almonds, hazelnuts, and peanuts. Someone has mixed them all together for us. It would be nice to separate them for cooking. Provide the children with several containers in which they can individually separate all the listed vegetable proteins. Encourage them to describe each item. Emphasize that we will not consume them immediately, as some need to be cooked, and others





may cause allergies. As part of the routine, encourage the children to identify protein-rich foods in all meals, both at kindergarten and at home.

LET'S BE CAREFUL

8 most common foods that cause allergies

PEANUTS

WALNUT

MILK

EGG

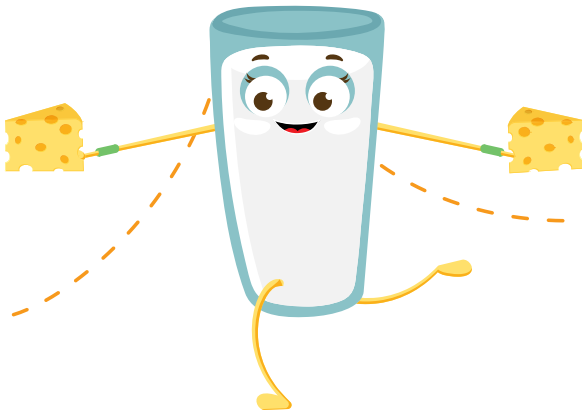
WHEAT

FISH

Proteins are not stored in the body. More proteins do not mean a stronger child!

5. Children can draw additional “egg eyes,” meat pieces, and olives, color them, and cut them out. They can then “fry” them in a cardboard pan. Before frying, provide the children with a visual recipe depicting all three products, for example, 2 “egg eyes” + 3 pieces of meat + 1 olive. You can proceed with the “cooking” according to their preferences.

WORKSHOP 3: Dairy products



Resources(required material): Poster with domestic animals that produce milk, poster with illustrations of dairy products, materials for children to create their own cow illustrations independently, medical gloves for each child, a chair for each child, 2 liters of milk, 4 spoons of sour milk, and a plastic cup for each child. Additionally, the story “The Magic Plate” will be used during the activity.

Content of the workshop:

1. Briefly remind the children of the character Will Milk from the story “The Magic Plate”. Describe him and follow up with a new adventure of Lena and Sami.....





It's story time

That morning, Sami didn't want to drink milk. "Come on, Sami, dear, drink a cup of milk," urged his mother.

"I don't want to, and I don't want to!" protested Sami.

"Just have some; it will help you grow," his mother persisted.

"I don't want to grow up!"

Lena overheard her friend's reluctance and approached Sami. "Come on, Sami, drink some delicious milk. You know it's from that colorful cow we saw in the village at Grandma Milka's," she said.

"You know, Lena, it's not nice to tease me like this. The colorful cow doesn't give us white milk like this, but colorful milk!" Sami retorted.

Lena looked at him in amazement and chuckled. "Do you really think that colorful cows give colorful milk, white ones white, and brown ones chocolate milk? Ha, ha, ha... you're making me laugh! Listen to me now: cows are magical animals, and they don't give colorful milk, but they do give healthy milk, full of strength for the brain, muscles, and our bones! If you want to drink chocolate milk, let's think about how to make it. Maybe you guys know this secret?"



WHY is milk healthy for children?

BECAUSE it contains: calcium, vitamin D, B vitamins, proteins.

WHY drink 1-2 cups of milk a day?

BECAUSE calcium helps bones and teeth to be strong, and proteins and vitamins strengthen immunity.

"DRINK MILK TO BE HEALTHY AND STRONG"

2. In front of the children, we display a poster featuring domestic animals that give milk. We encourage them to name, describe, and compare the cow, sheep, and goat, discussing how they are similar and different.

3. Next, the children can create their own application of one of the three domestic animals that give milk. Each child can affix their application to the back of their chair. We then initiate a conversation about where milk comes from, showing them a panel depicting an udder. Together, we brainstorm materials to make an udder, allowing space for the children to suggest ideas. Afterward, we provide each child with a medical glove and wait for them to figure out how to "milk" the glove to extract milk.





4. We recall what Will Milk Miko said about all the products made from milk. Using the poster with dairy products, we list them: cheese, cottage cheese, yogurt, sour milk, etc. Then, we demonstrate how to make sour milk. Adults heat the milk in a pot until it's hot enough that a little finger can be dipped in for a count of 10. Once cooled, each child pours a tablespoon of sour milk culture into their plastic cup, mixes it, seals it, and wraps it in a cloth. The cups should be kept warm until the next day when the experiment is complete, allowing us to discuss and ponder who successfully soured the milk.

5. Finally, let's create a skit about Will Milk. You narrate the story, and the children act it out through pantomime. "Will has a cow, and he loves it very much. The cow gives milk; smell the milk. Now Will has milk; try the milk. Will makes cheese from the milk; it's salty. He also makes butter; it's fragrant. Additionally, he makes yogurt; it's sweet. Finally, he makes sour milk; it's tangy." With emotive storytelling, encourage the children to immerse themselves in and portray the imagined scenarios.

PARENTAL CORNER

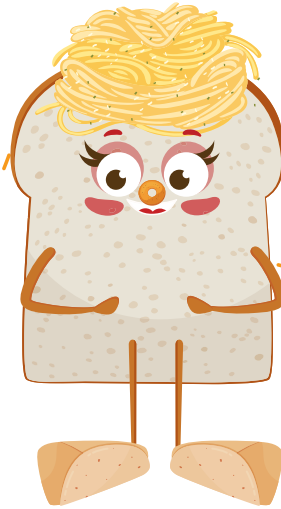
WHAT IF THE CHILD DOESN'T WANT TO DRINK MILK:

- *Enrich it with a little cocoa*
- *Make the favorite children's porridge with warm milk*
- *Allow the child to make a milkshake with you from milk and banana (or other fruit)*
- *Enrich soups and stews with a little milk*





WORKSHOP 4: Cereals



Resources(required material): poster with cereal products (bread, spaghetti, popcorn, bagel/bun, tortillas, rice), three types of flour: white, wholemeal, and yellow, a tray for each child, assorted cereals such as wheat, corn, oats, rice, brown rice, quinoa, amaranth, couscous, and the story “The Magic Plate”

Content of the workshop: 1. Begin by briefly recalling the character of Meriel Cereal from the story “The Magic Plate.” Describe Meriel and then introduce a new adventure of Lena and Sami.

It's story time! Lena and Sami accompanied their mothers to the bakery today. Do you know, friends, the bakery is where the most delicious breads, muffins, and pretzels are made and sold. Mmm, our two friends peered into the glass display case, inhaling the wonderful aroma of freshly baked bread.

Uncle, the baker, greeted them: “Come on, kids, have you decided what you'd like for breakfast?” “I'll have this muffin!” exclaimed Sami eagerly. “And I'd like that one,” Lena pointed to the whole grain muffin with sesame seeds.

As Uncle packed their treats, Sami asked Lena in bewilderment, “I don't understand why you chose those over these beautifully golden ones!” Lena smiled, “They're not burnt, they're whole grain!” “How, and what does whole grain mean?” queried Sami. Lena pondered for a moment, then replied with a smile, “I've got an idea on how to explain it to you! You know what bread is made of, right? Flour?” “From wheat grains!” added Sami. “Exactly, but when the grain keeps its outer layer, called the bran and germ, it's called whole grain. It's rich in vitamins and nutrients, making it a healthy breakfast choice.”

Friends, have any of you tried a whole grain pretzel before?





2. In front of the children we put a poster - with applications of cereal products. We name them, list them, describe them... The children say their favorites and explain why.. Then through the story of whole grains we introduce them to their importance for health.... We let the children tell us about their experiences..

3. In the following activity, we can explore several types of flour with the children: white, whole wheat, and corn (yellow). Then, we can discuss which color of flour we should use to draw: a sun, a snowflake, or an elephant.

4. We can proceed by kneading and shaping pretzels using all three types of flour. After baking them in the kitchen, we can carefully taste each one and discuss if they taste the same or different. If they are different, we can explore how they differed.

5. Let's create Meriel - Cereal using cereals. Children can start by illustrating the character of Meriel - Cereal, and then they can make a collage using different cereal seeds provided.



WHY are cereals the basis of healthy food?

BECAUSE they contain: carbohydrates, proteins, vitamins, minerals and are the best source of energy!

WHY is it better to consume whole grains?

BECAUSE they are digested more slowly and provide energy for a longer time, they contain more vegetable fibers, minerals and proteins, they improve food digestion

LET 1/4 OF THE PLATE BE GRAINS!!

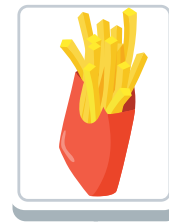
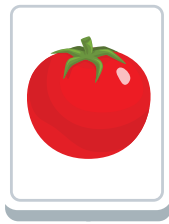


WORKSHOP 5: WHO IS THE MOST IMPORTANT (FOOD PYRAMID)

Resources (required material): food pyramid poster, food pyramid puzzle application, 50 flashcards of the 5 food groups, and cardboard or plastic plates.

Content of the workshop:

1. Remind the children of all 5 types of food and all 5 characters from the story "The Magic Plate".....
2. Next, you can play a game with 50 flashcards (10 cards for each type of food). The children sit in a circle. Turn the cards upside down and spread them out. Each child has a plastic or cardboard plate in front of them. From the drawn cards, each child selects foods to place on their plate, prioritizing based on the "Who is the most important?" principle, as indicated by the Food Pyramid. Allow them enough time to make their choices. The conclusion of the game should reinforce the concept of the food pyramid. Show them the pyramid poster again and discuss whether they agree or have different opinions!



WHY is the Food Pyramid important?

BECAUSE it is the guide to a properly balanced meal.

WHY are cereals at the base of the Food Pyramid?

BECAUSE they provide energy and we should eat them daily!

WHY should the "Children's food pyramid" be a little richer in milk and dairy products?

BECAUSE children in this period have an increased need for calcium for bone growth and development!

BALANCE, MODERATION AND VARIETY!





3. We continue the game “Who is the most important?” with the food pyramid puzzle. Provide multiple puzzles so that more children can participate. The puzzle pieces represent the tiers of the pyramid. As the children assemble the pyramid, engage them in discussions about the significance of each type of food based on its position in the pyramid. Why is it at the bottom? Is it the most important if it is at the top, and vice versa?

4. The question “Who is the most important?” will be asked by both Lena and Sami....Lena and Sami learned a lot about the five types of food. Now they are sure that fruits and vegetables should be eaten every day, as they are full of vitamins and minerals, protect us from many diseases, and are best eaten fresh. “Milk, yogurt, sour milk, cheese, cottage cheese, and cheese provide a lot of calcium, ensuring strong bones,” Lena emphasized. “And don’t forget about proteins! They give us strength in our muscles,” Sami exclaimed, moving his hands like Hercules. “Let’s not overlook cereals, especially whole grains. They keep us full for a long time and ensure our digestive system works like clockwork.” While discussing what they learned about healthy food, Sami asked, “Lena, which is the most important of all these foods?” Lena pondered, “I think milk and cheese are crucial, or maybe it’s fruits or proteins...mmm, I’m not sure!” Lena then explained, “Sami, my friend, there are some important aunts and uncles called nutritionists... they are the ones who created the healthy food pyramid. Look at it!” Lena showed him the picture of the pyramid. “Are the foods on the lowest floor the least important?” Sami asked. Lena chuckled, “Ha, ha, you’re looking at the pyramid the wrong way. All of them are important, but the lowest floor is like the foundation of our building... all the other floors rely on it!” Sami exclaimed, “It clicked! Now I know how every plate will become magical. If it contains all five types of food, it will become magical, and we will be healthy and strong!” Turning to their friends, Sami asked, “And are your plates magical?”

PARENT’S CORNER

Together with the child, create a “FOOD DIARY”...

Use a small notebook to draw and record what the child has eaten each day, both at home, in kindergarten, and at school.

This approach allows you to:

- Differentiate between the healthy and less healthy foods consumed each day.
- Assess whether each meal included portions from all five food groups.
- Facilitate daily conversations with the child about nutrition, addressing any topics that may not be readily accessible to them

SOMETIMES WE CAN EAT CHIPS, CHOCOLATE, ICE CREAM, PIZZA, DONUTS



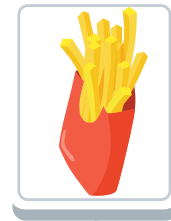
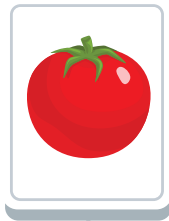


TOPIC 2: MY MAGIC PLATE

Expected results: Through this topic, children identify the five types of healthy food. They learn to differentiate between whole, half, and quarter portions, correctly sorting the types of healthy food. They also recognize the most important vitamins found in healthy foods. Understanding the significance of macro and micronutrients on the Healthy Plate, they can appropriately categorize food items. Additionally, they develop the ability to recognize colors and associate them with specific vitamins, allowing them to classify food by color.

WORKSHOP 1: GEOMETRY ON MY PLATE

Resources: (required material): Poster: Healthy Eating Plate, stickers depicting healthy and unhealthy food, paper clips, paper plates for each child, a large application displaying the Healthy Eating Plate divided into four sections, flashcards featuring various types of healthy and unhealthy food.



Content of the workshop:

1. At the start of the workshop, engage the children with several key questions related to the topic: What constitutes healthy and unhealthy food? Can they name the 5 types of food that should be part of a balanced diet? What are bacteria? Encourage the children to share their thoughts and opinions. Following their responses, proceed to tell the story featuring the characters Lena and Sami.

“Sick Sami”

Lena: Hi Sami, I've missed you lately. You haven't been at kindergarten, and you've been staying indoors.

Sami: Hi Lena, I'd say I'm not feeling too well, Lena. I've been sick, really sick. - Sami said with a hint of sadness as tears welled up in his eyes.

Lena: Oh no, what happened, Sami? - Lena gently hugged him.

Sami: Oh Lena, I wasn't being careful at all. I went to a birthday party, and there was so much delicious food. Pizzas, cakes, chips, and all sorts of tasty snacks.





Even though my mom warned me not to overindulge... But I just couldn't resist. I kept eating and eating. I was so happy in the moment; I wanted more and more.

Lena: But Sami, isn't that too much unhealthy food?

Sami: We've learned and talked about what junk food is, but... I kind of... loved it. When I got home, I felt really sick. My stomach hurt so much, and my mom rushed me to the emergency room to see the doctor. And... guess what? My throat was red, and my stomach was in agony.

Lena: What happened then?!

Sami: The doctor told me that besides eating too much unhealthy food, my body was trying to expel it. That's why I was so sick. And he also said that if my pain didn't subside, I might have eaten something spoiled.

Lena: How can food spoil? Isn't cake and chips just bad and unhealthy?

Sami: Don't you see? The doctor explained that some foods contain harmful bacteria that attack our bodies, especially the stomach and intestines. Luckily, I only had a bit of spoiled food. My stomach settled after a few days.

Lena: What are these bad bacteria, Sami?

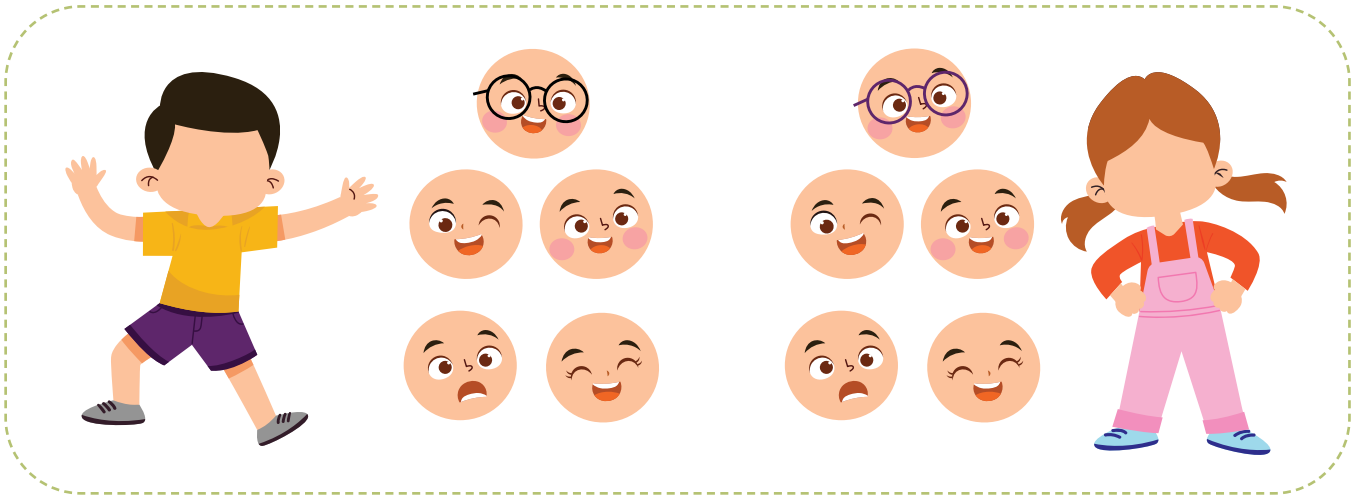
Sami: There are both good and bad bacteria. The bad ones aren't just in bathrooms; they can also be on food. They make the food go bad, you've seen it, right?

Lena: Yeah, I've noticed that. At my house, we always have fresh and colorful food. My mom and I wash them under running water.

Sami: And the good bacteria are in our bodies; they defend us when bad bacteria attack. But they need healthy food to thrive and become superheroes, protecting us from diseases. I'll never eat bad and unhealthy food again.

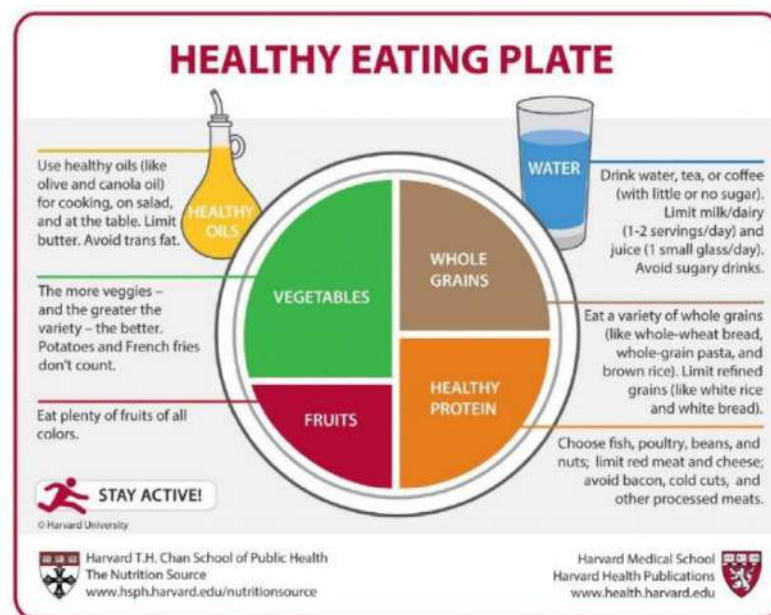
Lena: That's great, Sami. You've learned an important lesson. I also crave cake and candy sometimes, but it's only occasionally, and I always remember to brush my teeth afterward. Bad bacteria love to live on our teeth, and they cause cavities. And here, they just spoil. I hope you now understand how to take care of your body and what to feed it. Always remember to have the 5 types of food on your Magic Plate every day





At the end of the story, children can enter a character of a child who was sad and happy in the story on the adverbs boy and girl. Talk about how they feel when they eat healthy and unhealthy foods.

2. On the “Healthy Food Plate” poster, explain the 5 types of healthy food that should be eaten daily. Explain that it is made up of vegetables, fruits, whole grains and healthy proteins. With that, you should drink mostly water, milk, yogurt and healthy drinks from squeezed juice every day. On a colored poster (green, red, brown and orange), cut 4 triangles, line them up and join them like a circular puzzle. Flashcards show products from the 5 types of food that children should place on the triangle in the appropriate color.





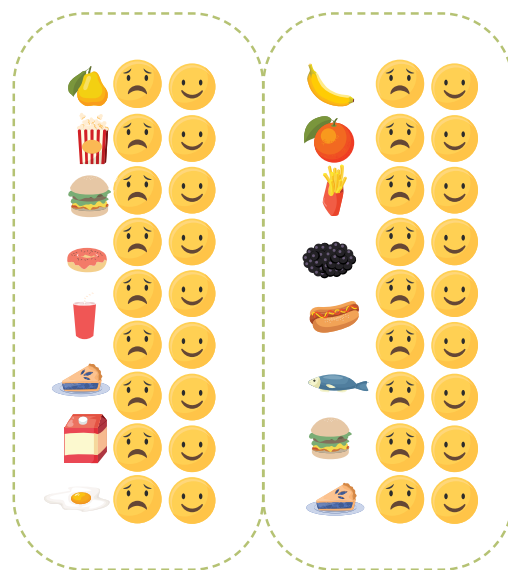
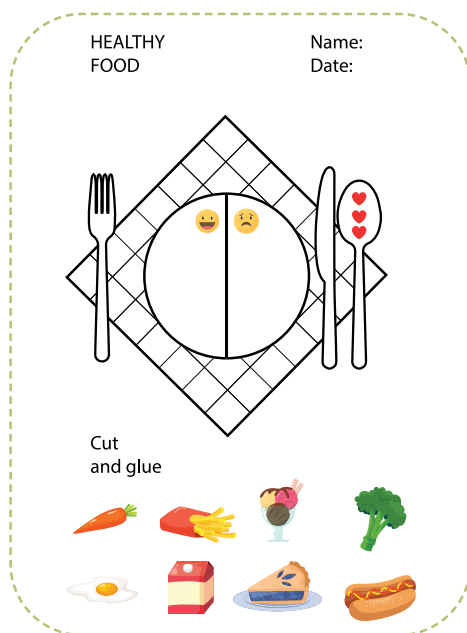
Encourage active discussion and refer back to the story of Sick Sami. Explain why it is always good to choose healthy foods.



3. The children sitting at the tables represent their group. Each group works on a white hammer cut in the shape of a circle, divided in half. Put a smiling sticker in one half and a sad one in the other. Stick the pictures of healthy and unhealthy food on wooden pegs. Explain to the children that each group should make their own plate of healthy and unhealthy food. After they finish the task, each group presents how many stickers are in the halves. Depending on the number of clips that prevails on one or the other half, it is determined what should be done in case there are more pictures on the half with unhealthy food or what should be done if there are more pictures on the half with healthy food.

Tip: For younger children, you can prepare paper plates for each child and give them pegs with pictures. Direct them to select the healthy and unhealthy foods and attach the pegs to the appropriate side.

4. After they finish the group task, on a worksheet each child can express through the happy/sad symbols how they feel when they eat a certain type of food. In that way, the child will reflect the real desires regarding the consumption of certain types of food. Use the other attachments for individual worksheets in which the children will be able to determine their acquired knowledge about healthy and unhealthy nutrition and a balanced plate of healthy food.





5. Finally: End the workshop with a physical activity. Point out to the children that sometimes even the Magic Bowl does not have such powers to keep the body healthy without physical activity. Call them to form a circle. Use the flash cards and put them in a hat or bag. Each child draws a card and direct the children what to do, for example: a picture of a pumpkin (have all the children stand with their feet in the shape of a circle or the letter O, a picture of a leek - let them stand straight like a leek, cherries - let them hold onto hands like cherries (two by two), apple - let them jump high to get the apple, carrot - kneel low on the ground to pluck the carrot, grapes - let all the children stand together as a bunch.

Advice for the educator

You can integrate the workshop in the part of acquiring mathematical concepts of whole, half and quarter. In the family drama center you can integrate the theme with a drama text "Un-necessary quarrel" in which the main characters will be types of fruits and vegetables.

Advice for parents

Always serve food to your child with all the necessary products that you use to prepare the meal. Explain to the child what is on the plate and discuss the importance of a healthy meal according to the child's age.

WORKSHOP 2: RAINBOW ON A PLATE

Resources: (required material): poster - Vitamins and Minerals, healthy food app stickers, made a large poster rainbow app (in the colors of the rainbow) and fruits and vegetables app, flash cards of various types of healthy foods and the letters of vitamins and minerals.

Content of the workshop:

1. For the workshop, prepare posters of healthy foods that contain vitamins and minerals. Start the workshop by discussing the questions: Why is it important to eat a variety of fruits and vegetables? What colors are fruits and vegetables? Tell or dramatize the story:





"Rainbow on a plate"

Lena: Do you know what a rainbow is?

Sami: Wow, Lena, who doesn't know what a rainbow is? Just leave me, I'm still sick to my stomach because I ate too much junk food on my birthday. Now I don't know what to eat.

Lena: Well, that's exactly why I'm asking you Sami. How come you don't know what to eat? Well, that's easy... Let your plate be as colorful as possible.

And let there be of all colors... red, yellow, orange, green, blue, purple...

Sami: How can I make my plate colorful, I can color it with crayons!

Lena: Only fruits and vegetables are in those colors, let's think a little...and you will see. He did not answer the question: What is a rainbow or a rainbow?

Sami: I know a song like that (sings to himself in a moody way)... if only I remembered... I heard that whoever stands at the end of the rainbow will be very happy and find a pot of gold!

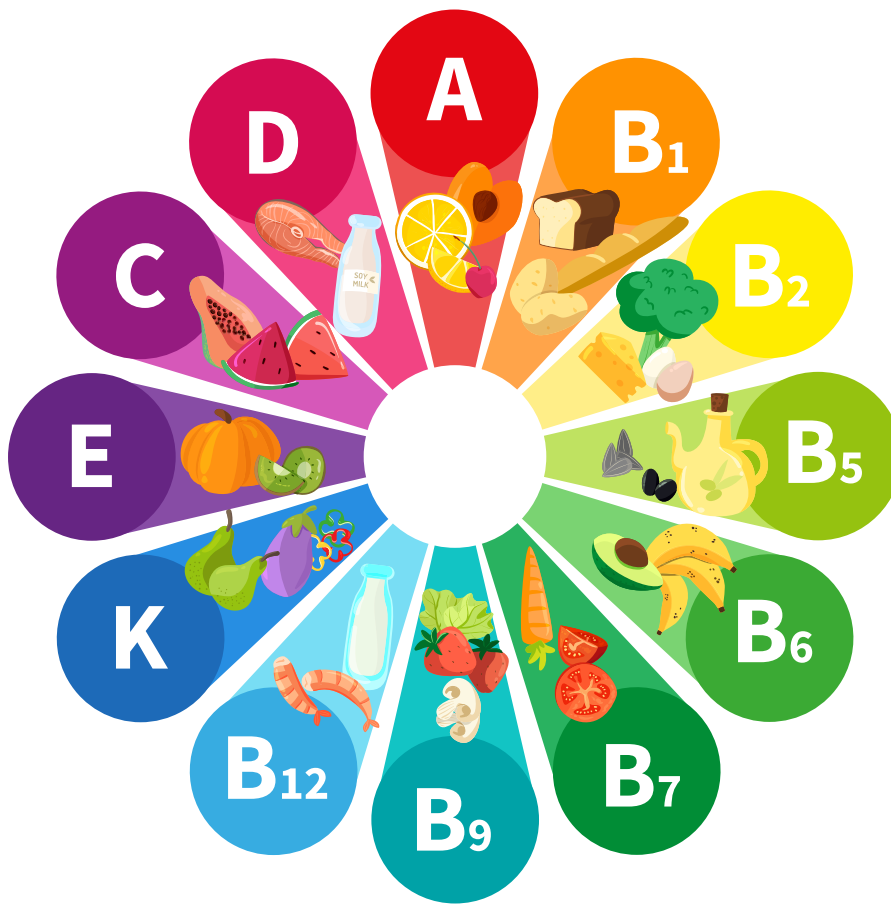
Lena: No Sami, you must have heard beautiful stories and fairy tales. You can look for the end of the rainbow, but you won't find it, so the sun is created with the help of water and the sun. When it rains and when the strong rays of the sun shine from the clouds, the tiny drops are lined up in several rows in different colors...., there is no more beautiful sight for me. And so is my Magic Plate. You should try it, you will feel great and your stomach won't hurt either



Analyze with the children using the posters to identify what components in fruits and vegetables contribute to our health. Explain the significance of the vitamins and minerals present in fruits, utilizing various models of fruits and vegetables to illustrate.

2. In the center of the circle where the children are seated, arrange hammers in the colors of the rainbow. Prepare flashcards featuring pictures of fruits and vegetables showcasing their colors. Additionally, gather letters representing various vitamins and minerals. Cut the hammers into semicircles and arrange them to





form a rainbow in the center. Encourage the children to assist in naming the colors and arranging them according to the rainbow sequence. Then, add the letters and explain the significance of each vitamin. Once you have introduced the children to the fruits and vegetables containing each vitamin, along with the colors of the rainbow, arrange the corresponding vitamin colors accordingly. Select seven essential vitamins that cover the colors of the rainbow. Each child draws several cards and places them on the corresponding color of the rainbow.





3. Divide the children into several groups and prepare the necessary materials. Each group should have a healthy food plate and several sheets featuring fruits, vegetables, milk and dairy products, cereals, and proteins. Provide scissors and glue for each child. Ensure that the plate is large enough for each child to stick the appropriate pictures, which will be marked in corresponding colors representing the 5 types of healthy food. Explain the steps clearly and instruct the children to cut out the pictures and decide together in which section they should place each corresponding product. Engage the children in a discussion about the nutritional content of healthy food and how its value can be maintained. Additionally, provide the children with jars for winter storage, which they will draw on the hammers. Instruct them to sort the fruits and vegetables by color in the jars using the remaining pictures. Place the appropriate letter representing the most important vitamins or minerals on each jar. Arrange the fruits or vegetables in the jar according to the color of the corresponding vitamin letter.



4. Finally, conduct an experiment that represents the colors of the rainbow. This engaging activity will serve as a fun and relaxing way to conclude the workshop. The experiment utilizes safe ingredients suitable for children, and you can actively involve them under your supervision. Here's what you'll need:

LAVA LAMP

Ingredients needed: small plastic water bottles, vegetable oil, water, food coloring (blue, red, orange, yellow, green, purple), effervescent tablets.

Instructions: Fill the bottle halfway with water. Add a few drops of food coloring. Fill the rest of the bottle with oil. Leave some space at the top so it doesn't overflow. Drop in the effervescent tablets and watch as it erupts and bubbles of color rise to the surface.

TIP: You can reuse the bottles to repeat this science experiment several times!





ADVICE FOR PARENTS:

Cultivating healthy eating habits is more than necessary in these times. Talk to the children and teachers about the activities in which your child participates on a daily basis. Continue the activities at home following the instructions from the educator. Shop with your child for healthy products from the market and prepare the Magic Plate of healthy food together. That way you will gradually create healthy eating habits in your family.

Did you know?!

On April 3 every year, Rainbow Day is celebrated. April 3 is also an important day for all artists, especially painters.



WORKSHOP 3: MY FIVE SENSES

Resources: (required material): poster – Plate of healthy food, Vitamins and minerals, fruits and vegetables, cups, plates, forks, paper napkins, plates, juicers or fruit porridges, rice or corn bread and everything else that can be made from it light and healthy snacks for children and adults.

Content of the workshop:

The workshop is designed for children and parents alike. The “My 5 Senses” activity involves a variety of resources, and parents are encouraged to actively participate. They can contribute by bringing everything needed for the workshop. When selecting fruits and vegetables, it’s important to choose ones that will engage all five senses in children. To stimulate the sense of smell, opt for fruits with distinct and recognizable scents, such as strawberries, watermelons, or quinces.

IMPORTANT NOTE

As an educator, you already know the children and their reactions to food. Be aware of possible allergic reactions to certain types of food. Consult with the parents.

FOOD SAFETY:

Wash your hands with soap for 20 seconds in luke-warm water and dry with a paper towel;
Wash fruits and vegetables thoroughly run cold water and prepare the plates and cutting service in advance. Hygiene must be at a high level;

REMEMBER!

Always check which child is allergic to a specific type of food;
Always check with parents about a specific dietary regimen for children with certain developmental disabilities.





1. Gather the children and parents in a circle, with parents standing behind the children forming a larger circle. Parents are helpers in the activity. Place a white surface in the middle of the circle along with fruits and vegetables that leave marks on a white background, such as carrots, aronia berries, and spinach. Meanwhile, several parents can assist by cutting the fruits and vegetables into pieces. Begin with a focus exercise to help children activate their senses.

- Sight: Ask the children to close their eyes. Use the carrot to leave a trail on the white surface and ask which fruit or vegetable leaves an orange trail. Let the children guess from the provided options, and then demonstrate with the aronia berries and spinach. Parents can assist in making the correct choice. Provide each child with a carrot and allow them to draw something of their choice on the white surface. Give them a short time to explore.
- Touch and smell: Encourage children to choose a fruit or vegetable they can recognize by touch. If they're unsure, allow them to smell the fruit. Encourage them to recognize shapes and textures.
- Hearing and taste: Let the children taste a piece of fruit or vegetable and identify it based on taste. For example, strawberries have a strong aroma but make no sound when eaten. Carrots are ideal for this activity because they crunch when chewed and have a distinct flavor. You can also use apples. Conclude the activity by discussing everyone's favorite type of food.

2. This activity involves preparing healthy recipes. Before starting any activities, ensure that you provide a healthy and clean environment for preparing delicious recipes. Divide the parents into two groups. One group will prepare a healthy pizza, dessert, or snack for the children, while the second group will prepare a healthy drink or fruit and vegetable smoothie. Enjoy the prepared healthy snacks and always maintain good manners in your diet. Bon appétit!





Tip: HOW TO COOK WITH CHILDREN (Baby Materials)

- Discuss the dish you are going to cook together before you start. Show your child the ingredients and the recipe.
- Let your child do as much as possible. They can wash vegetables and fruit, pour and mix, and assist with weighing and counting. Your child can even try light cutting under close supervision.
- Talk about what you are doing and introduce words like 'grater' and 'mash'. You can also encourage your child to make up words to describe flavors and textures, such as "salty," "crumbly," or "crunchy."

TOPIC 3: The food and my body

Expected results:

Children wash hands independently before each meal or snack, and seek clean cutlery if it falls on the floor.

They do not touch toys or other objects during meals.

They drink water regularly and understand why they should avoid sweetened juices.

They eat breakfast every morning in kindergarten and communicate when they have had enough food.

WORKSHOP 1: Food hygiene

Resources (required material): *fresh fruits and vegetables, magnifying glass, basin, water, paper, tempera paints, three small plates and three packets of dry yeast, sugar.*

It's story time:

Lena: How do people greet each other when they meet?

Sami: Hello!

Lena: Let's talk about the word "hello". What does that mean? By saying hello, one person seems to wish another person good health.

Sami: After all, health is the most important value given to a person. Right?

Lena: That's right. The most important thing is to be healthy! Eating a healthy, balanced diet can make us vital, strong and full of positive emotions!

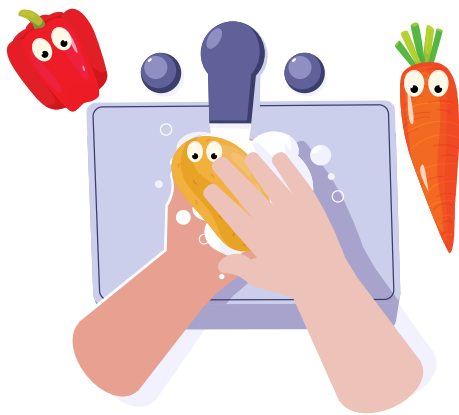
Sami: But even healthy food sometimes makes us sick if we don't prepare and store it properly.

Lena: That's right, food should be fresh and washed just like our hands should always be clean. Let's wash them together with our friends from kindergarten!





1. Finger gymnastics: "Washing hands". This is a favorite children's game involving imitation and rhythmic movement or singing. Children use their hands and fingers to practice proper hygiene techniques in a fun way. We can also incorporate relaxation strategies by stretching the fingers as if splashing water. We splash to the left, we splash to the right, and then shake them vigorously. We imagine smelling the beautiful scent of soap and with vigorous movements, we imitate drying each hand with a towel. Finally, we gently caress our face with our warmed hands and focus.



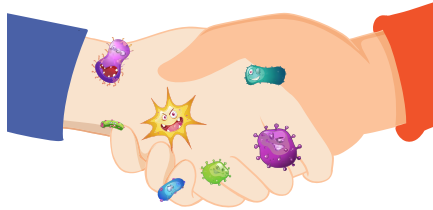
You can wash vegetables and fruits manually under running water and with the help of colanders and special nets for washing food. It would be good to soak grapes, strawberries and other forest fruits with small grains for an hour in cold water beforehand.

If you're sick and you sneeze, the bacteria from your throat and mouth can spread all around you. If the bacteria land on food, and your friend eats it, they can get sick too.

Wash your hands with warm water and soap before touching food. Make sure your nails are clean!

2. We're discussing all the things we do with our hands: greeting, petting animals, making clay figures, building sandcastles, bringing food to our mouths... Hands are very busy and must always be washed with soap and water before we eat. Let the children inspect their hands with a magnifying glass. Remind them that dirt and germs can hide in the lines and cracks of their palms. Then, let them do the same inspection with fresh fruits and vegetables. What is hidden in their peel or skin?

Don't put your fingers in your mouth! Although invisible, bacteria can easily reach your plate.



Let's demonstrate how to properly wash fruits and vegetables before consuming them. If they are old enough, let's teach them how they can do it themselves. Fill a clean basin with water and wash the fresh fruits. We might see dirt, but we won't see bacteria; they are too small. Have them

personalize their germ ideas by making a fingerprint and then adding eyes, nose, mouth, and hair. Stick the cut bacteria on drawn palms, fruits, and vegetables, place them near children's toilets and canteens.

Experiment: "Bad bacteria make us sick". We will need three small bowls and three packets of dry yeast. Pour about ¼ cup of lukewarm water into one bowl, ¼ cup of hot water into the second bowl and ¼ cup of cold water with an ice cube into the third bowl. Have the children add sugar to all three bowls to help the yeast grow. Within minutes we have dramatic evidence that yeast grows faster at room temperature than at low or high temperatures. Let the children notice how the yeast makes bubbles and grows just as "bacteria" grow quickly if the food is not prepared or put in the refrigerator.



Home Activity:

Prepare stickers to teach your child where the food is kept. Use large ones with different colors on the fridge, freezer and cupboard. Place smaller ones of the same color on all the dishes to show where they belong. If you choose not to use real food, use pictures cut out of magazines.

Don't put your fingers in your mouth! Although invisible, bacteria can easily reach your plate.



WORKSHOP 2: I drink water to stay

Resources (required material): 2 eggs and two transparent glasses, metal coins, Coca-Cola or other carbonated drink

Lena: Hi Sami!

I really like to drink delicious sodas, and you? Today I was with my mother in the store and there were many different sodas on the shelves. I wanted her to buy me a soda but she wouldn't, I don't know why she thinks it's bad for my health when everyone drinks!

Sami: Your mother is right! You should avoid sodas and carbonated drinks. Let's find out together why this is so!





Experiment 1: Find out if Coca-Cola is dangerous for our teeth. For this experiment we need 2 eggs and two transparent glasses. The composition of eggs is similar to our teeth. The substance calcium is responsible for the strength of eggshells, as well as for our teeth and bones. To make the experiment more accurate, we pour Coca-Cola into one glass and water into the other. Put 1 egg in both cups. In order for the experiment to be successful, it is best to let the egg cups stand for a week. What do you notice? The egg, immersed in the drink, softened, darkened and spots appeared. Bottom line: Coke can cause teeth, just like eggshells, to turn dark and sick.

Water helps our brain work properly.



Experiment 2: Find out if sodas are natural. Pour soda into a glass and let it stand for five days. After a while, the water from the juice will evaporate, and sugar syrup will remain in the glass. Conclusion: Carbonated juices contain a lot of sugar. What happens if a person eats a lot of sweets? That's right, she gets sick more easily, her teeth decay, she gets tired quickly, she becomes sluggish and moody.

Water is good for children's skin!

Water is good for children's skin!



Tips for parents:

*Always offer water during meals and snacks.
Carry a bottle of water when you are out and about with your child.
Encourage your child to drink water, even if he doesn't ask you to.
Remind him to drink water before, after and during physical activities.*





WORKSHOP 3: Breakfast is important!

Resources (required material): balloon, oatmeal, milk or yogurt, chopped fruit, poster

What is the importance of breakfast?

It helps to start the work of the whole body, fills it with energy to spend the whole day productively. It lifts your mood and relieves stress.

Sami: Oh, how my stomach hurts. I was very hungry and now I've eaten too much, I can't breathe. Ugh..

Lena: Sami, let's fill your cheeks with air. Can you breathe? Well, that's how your stomach feels too! If you eat too much, your stomach may hurt and you may not feel well.

Sami: How do I know when I've had enough?

Lena: Our body tells us when we are hungry and when we are full. The stomach may rumble or make funny noises, reminding us that we are hungry.

Sami: How do we know when we are full?

Lena: Let's do a morning exercise with our friends, and together we will find out what we have for breakfast today



1. We lie down on the floor and place our hands on our stomachs. We take a deep breath and inhale. Our stomach fills with air like a balloon. The more we inhale, the more our stomach fills up, that way our stomach is also filled with food. When we exhale, the balloon deflates as our stomach empties. We can also visually demonstrate to them with a balloon that we gradually blow up and explain how while eating we can easily fill our stomach with food, or use a picture.

2. Next, we talk to the children about breakfast in a fun and active way. We make a circle and encourage each child to say what they ate for breakfast or what their favorite food is when they get up in the morning. If the other children (and us!) have eaten it or it's our favorite breakfast, we need to jump one step forward; if not, we take one step back. If we have limited space, we can replace jumping with raising and lowering our arms.

Why do we need breakfast?

It controls hunger during the day and saves us from excess weight.





3. **Time for breakfast!** After the game, we remind the children that breakfast gives us energy just like the batteries in a toy. We explain that breakfast is especially important because it is the first meal we eat after sleeping for a long time. Sleep helps our bodies to rest. When we wake up, we need food to help us “fill up with energy”.

Support internal signs of hunger and satiety in children!

Children are born with hunger and satiety cues that allow them to regulate how much food they eat. However, they often lose the ability to recognize these signs at an early age, as many adults take over the job of deciding how much to eat.

- Teach children vocabulary to express their hunger and fullness signals.
- Ask questions like “Are you still hungry?” and “Are you full? Make statements like “You take care of your body by noticing that your belly is full.”
- Model and talk about your own feelings of fullness by saying, for example, “I’m full, so I’m not going to eat any more apple slices.”

4. Have a nice breakfast!

Oatmeal Recipe: We help children prepare oatmeal for breakfast. We bring all the necessary products to the table and the children start filling the plate with a spoon. We pour the oat flakes, add milk or yogurt, mix well and finally add the chopped fruit of the children’s choice.

Tips for parents:

You can approach a child who refuses breakfast with one of his favorite characters from fairy tales and tell him that that character always eats breakfast, that’s why he’s so smart, strong and brave. With some children, the approach is different, include them in the preparation of breakfast and serve the food together.

Avoid controlling feeding practices!

Pressure on children to eat and restricting certain foods can lead to picky eating and cause children to overeat when they are not hungry, which can result in obesity.

- Eat meals together with the children
- Let the children decide if they want a turnip
- Let the children decide how much to eat
- Allow children to choose the food they want from what is offered





Topic 4 : In a healthy body, a healthy spirit - I exercise every day

Expected results:

- Children are involved in daily physical activities, they harmonize the coordination of hands and feet during basic movements such as walking, jumping, crawling, climbing.
- They are able to perform the natural movements of catching, throwing, rolling.

Workshop 1: I exercise, you exercise, and together we are stronger

It's time for story:

Sami and Lena are sitting on a park bench looking at Sami's phone. "Let's stop looking at the phone," Lena tells him, "I'm already bored just sitting around, I want to do something interesting."

- Lena, what do you want us to do? Look, we play games on the phone, it's really fun.

"Sami, do you know how harmful it is to your health to sit and look at the phone? Today, my teacher in kindergarten talked about it... If you constantly look at the phone, your vision may deteriorate, your attention will decrease, you may become lazy, and it is possible that you will have nightmares in your sleep. Could all that really happen to me??? Yes, let's do some interesting exercises that I learned in kindergarten. Follow me..."

- *The sparrow turns in all directions and looks for food (children move their head left - right);*
- *The sparrow pecks grains (Children imitate the pecking) ha, ha, this is interesting, isn't it Sammy? Yes, let's go on...;*
 - *A stork flies (children imitate the stork's flight);*
 - *The stork on the chimney stands on one leg (children stand on one leg);*
Come on, you can bravo!
 - *To touch the earth - to reach the sky (children kneel, touch the earth with their hands and stand up with their hands raised to the sky);*
 - *Let's ride a bicycle now by ourselves (the children are seated, their hands are resting on the grass, and they are imitating driving with their legs);*
 - *Let's row, let's row (sitting with bent legs, they make movements with their hands as if they were rowing);*
 - *The wind sways the branches (Children raise their hands vertically above their heads and move their bodies left and right);*
 - *Very interesting, Lena. I can't wait to practice these exercises again. Now I'm going home to leave my phone and not use it anymore. From now on, I will fill my time with activities that will help me stay healthy and grow properly. I'll tell Mom and Dad, so we can do them together and enjoy it*





Wouldn't it be great if your loved ones could be separated from the various digital devices for at least a few hours during the day?

Advice for parents

More physical activities for children, less use of digital devices.

- Motivate and stimulate children by assigning them specific tasks, such as walking on their toes, running to a designated spot, or sitting quietly.
- Encourage children to imitate something or someone from their environment. Children can only imitate what they have seen or experienced.
- » Walking on various surfaces:
- This game can engage all children in the group, with terms adjusted based on their age.
- Children can imagine and demonstrate walking on: hot sand, small stones, a sticky floor, a swaying ship, ice, imitating a midwife, mimicking a vendor in the market, hopping over puddles, walking in a silly manner...
- » Engage your child in physical activity by participating in games that require movement together.
- Children crave companionship, attention, and praise for their actions and achievements. Offer praise regardless of whether they have fully accomplished the assigned task.

RECOMMENDATION

Always keep a basic first aid kit nearby. In case of cuts or scrapes, it will help you provide assistance quickly and efficiently.

Information

To enhance coordination and muscle strength, children should engage in 60 minutes of exercise per day.

INTERESTING

Engaging in fun physical games helps improve motor skills such as coordination, balance, and flexibility, while also fostering self-confidence and reducing fear.

Encourage children to listen to their bodies and recognize their needs.

Since playing can be tiring, ensure they stay hydrated and take short breaks.





Workshop 2: A day in the countryside

t's story time:

On a beautiful sunny day, Lena and Sami excitedly prepared to go to the countryside with Lena's parents.

Sami: Lena, I'm looking forward to seeing the village where your grandmother Rada and grandfather Tome live.

Lena: Me too! You know how lovely it is there. Grandma and Grandpa have a fruit and vegetable garden right next to a beautiful stream. They arrived in the village, filled with anticipation. Lena's father said, 'Come on, children, help us collect the fruits that nature has provided and sort them into crates, especially fruits and vegetables.'

Sami: And how will we know which basket to put them in?

Lena's father replied, 'Each bin is marked, and you will place them according to the image on the bin. Let's gather together, and later we can taste the fruits. Lena and Sami eagerly collected the produce, engaging in a friendly competition. As the baskets filled up, they noticed a mix of fruits and vegetables. The time had come for them to taste the fruit of their labor and enjoy the bounties of nature.'



Games that encourage movement provide an endless source of joy, experience, and knowledge.

Healthy habits, healthy life.

Children have a natural curiosity to explore the world around them. Therefore, it's important to encourage them daily to engage in physical activity and adopt healthy eating habits that will become lifelong practices.



GAME
TIME





- **GAME: HOW THE CARROT GROWS:** Instruct the children to kneel and bend as much as they can, mimicking a seed in its husk. Begin by describing the scene: “The dew has already fallen, the sun is emerging.” Then, prompt them to move left and right. Next, guide them to slowly grow their stalk (extend one hand) and develop green feathers (extend the other hand). Finally, instruct them to straighten up, raise their heads completely, and imagine the wind blowing (move left-right). Encourage them to feel the warmth of the sun. As the teacher moves from child to child, gently pat their heads and express admiration: “How beautiful the garden looks with you, beautiful carrot.”
- **GAME: FRUIT SALAD** Arrange chairs in a circle, one for each child. Assign each child a fruit or vegetable. When you give the signal, instruct all children with a specific fruit to swap chairs simultaneously. The objective is for all children to change chairs during the exchange.
- **Game: Grow, grow** – Have the children form a line around the teacher. The teacher initiates the game by saying, “Grow, grow, Apple!” Children raise their hands to respond. Those who raise their hands correctly continue in the game, while those who respond incorrectly are eliminated. The pace of the game gradually increases. The last child remaining earns the opportunity to lead the next round. The game can continue with additional rounds, guessing items such as pear, plum, and chips in the orchard, and carrot, tomato, and chocolate in the vegetable garden.

ADVICE FOR PARENTS

Lead by example for your child by exercising together and spending more time in nature.

Combine exercise with a proper diet; after playing, encourage children to eat a healthy snack such as carrot sticks, apple slices, or celery sticks.

Playing in nature promotes physical activity for overall health and happiness.

Physical games for children aren't just a way to burn off energy; they're also a gateway to joy, happiness, learning, and unforgettable experiences.



Workshop 3: We are striving toward a healthy goal

It's time for story:

Lena and Sami, accompanied by their parents, arrived at the city park where the event was being held. 'We're racing towards the finish line, staying healthy,' exclaimed Lena.

'Let's go and find out what our task is,' Lena suggested as they approached.

'Are you paying attention, Lena?' Sami asked. 'We're going to compete in collecting fruits and vegetables.'

'Yes, sounds very interesting and delicious!' Lena laughed. 'And did you see? The one who collects the fastest and the most will receive a full basket of fruits,' Sami added.

The race began, and all the children eagerly joined the competition to gather fruits and vegetables. Parents cheered them on, applauding and encouraging their participation. When the referee blew the whistle, all the children stopped. The competition concluded, and the judge announced the winner, who had collected the most fruits.

'Today's winner is Lena, for collecting the most fruits. She will receive a basket filled with fruits and vegetables,' the judge declared.

'Come on, everyone! I want to share today's prize with all the competition participants,' Lena announced excitedly.

'Well done, Lena! Congratulations on your award. You're a true friend, always willing to share with others,' Sami praised.



EXERCISE TOGETHER

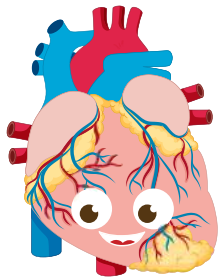
Exercising together not only benefits your health and your children's overall well-being but also strengthens the bond between parent and child.

"If I am persistent
I can succeed".

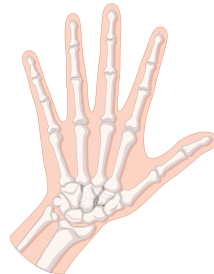


Activities in the classroom and in nature:

Strong Heart



Strong Bones



Strong Muscles



Do activities that make your heart beat faster: Walking, running skipping, jumping dancing,
*Swimming,
*Gymnastics or tumbling,
*Games such as tag or follow the leader,
*Playing on the playground,
*Riding a scooter, bicycle, tricycle;

Do activities that put pressure on bones to help them become stronger, for example:

- *Jumping, Skipping,
- *Jump rope,
- *Running,
- *Gymnastics;

Do activities that make children's muscles work harder than usual Example:

- *Games such as tug of war,
- *Climbing playground equipment,
- *Gymnastics;

TIPS FOR PARENTS:

Ensure your child gets sufficient sleep.

Sufficient sleep can enhance your child's mental, emotional, and physical well-being. Insufficient sleep can contribute to various health issues, such as obesity.

TIPS FOR PARENTS:

Are you ready to become an active family?

Finding ways to be active together helps incorporate more physical activity into everyone's day. Include activities like family walks, cycling, and playing active games in your daily routine. Visit parks, basketball courts, and soccer fields to encourage physical activity among children.



TOPIC 5 : Healthy living

Expected outcomes: Children understand where the food they consume daily originates and its impact on their bodies. They can identify the foods that support proper growth and development. They understand which foods promote healthy bones, teeth, and muscles, as well as those beneficial for brain function. They can identify foods they should consume occasionally and those they should avoid, as well as understand their body's signals.

WORKSHOP 1: What are the essentials for my growth?

Resources: Containers (plastic or cardboard), soil, seeds, utensils, paper, magazines, newspapers.

It's story time:

It was a beautiful day, and Sami and Lena were running in the park. "Oh, I can't keep going... I'm tired," Lena said. "Sami, you seem low on energy."

"What do you mean by energy? I'm curious," Sami asked.

"It's like you're a car with no fuel, stuck and unable to move... Do I need fuel too?" Sami asked. "Don't joke around. You need food for energy. Milk, lentils, peas, fruits, plenty of vegetables, and much more. But I don't have enough fingers to list them all," Lena replied.

"Got it," said Sami. "Good morning, Grandma Kefir. Good morning, children.

Let's start by washing our hands, then take a short break. After that, we'll drink a glass of water and it'll be time for lunch," Lena announced. "The lunch smelled delicious, and Lena couldn't help but ask, 'When are we going to eat?'" Sami added. "Today's menu includes beans and fish. Yum!" Sami exclaimed. "You grow from that, you know, Lena?" Grandma Kefir said. "Yes, I know. I remember our friend AILEEN-PROTEIN; it helps the brain to grow as well, and we can fall asleep more easily, for example with warm milk at night. On the menu, we also have a salad," Lena explained. "And your favorite dessert, Sami: pumpkin with walnuts," Grandma Kefir added. "I'm very hungry," Sami said eagerly as Lena started eating. "With this food, my dear children, you will have healthy teeth, strong bones and muscles, and don't forget you will be happy and smiling. Come on eat, I talked a lot, the food will get cold. Eat carefully and chew your food, don't rush, enjoy while you eat."





Praise children when they choose healthy produce, fruits and vegetables.

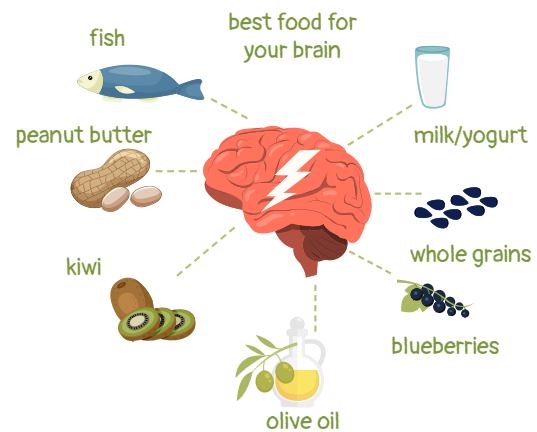
1. "With children, we explore firsthand where food comes from, who produces it, and its sources. We take walks to nearby markets, vegetable and fruit gardens, and view photos."

One of the most effective strategies for teaching children good healthy habits is for you to be a good example.

2. **Game** "In the 'Reminder for a Healthy Body' game, we discuss the location and function of each body part. Then, each child matches a picture of food to the corresponding body part; for example, carrots for eyes, milk for bones, and beans and nuts for teeth."

"We ask Lena and Sami to explain how healthy food benefits our bodies, and we discuss it together."

3. **Game** Children will prepare their own healthy meals using photos of food from magazines and newspapers. This activity will help them develop and grow properly. Then, we accompany the children to the kindergarten yard or a nearby park to play the "Picnic Time" game.



What children need to know:

Every food they eat affects their body's growth and development.

Children need to try a food 15 or more times before they can say they like it

WORKSHOP 2: Nourishing My Brain

Resources: poster, apps, pictures, magazines, stickers.



It's story time:

Lena and Sami stayed at home today, feeling bored, so they started guessing riddles.

Come on, Lena, guess the riddle, listen carefully, Sami said.

*"I have a clear mind,
And with healthy food I am a friend,
I solve riddles alone
Valuable to all.
What am I? (brain)"*

"Ugh, ugh, I can't remember. I don't know what it is. Hm, hm, hm, Lena, is something wrong?" asked Sami. "I really don't know. It's like my brain doesn't want to turn on," said Lena. "Well, the brain isn't like a television that you can turn on or off whenever you want."

Sa" Lena, let me ask you something, and please answer honestly. Did you have eggs and yogurt for breakfast this morning?" "No." "Did you eat any green vegetables, like spinach?" "No." Lena's eyes began to fill with tears. Wow, I forgot to eat today... Lena, we learn at home and in kindergarten about the importance of eating. Your brain may forgive you now, but not tomorrow. Remember, the brain also needs food to function, think, reflect, pay attention, solve problems, and perform many other important functions. "Come here, Lena, let me hug you. And you know what?" Sami asked. Our brain is like a sponge for opinions, so we need to feed it right away.

We talk to children about where our brain is located, what we use it for, how it grows, what it needs, what we feed it, and why. Children draw foods that are necessary for the brain on self-adhesive stickers and stick them on the outline.



Be careful with foods that are hard and difficult to chew, round or sticky as children can choke.

1. Game: "Memory of healthy foods". Children are divided into two groups. In one group, the character of Sami is called upon for help, and in the other group, the character of Lena. Each group is tasked with arranging the types of food necessary for brain development on a plate using various food applications provided. Children are encouraged to think quickly and make guesses.
2. Quiz: "Brain teasers". Start the game by saying words of food that the brain needs, along with one 'strange' word that is not related to the rest.



3.E.g. 1 Egg, leg, milk e.g. 2 plane, blueberries, beans e.g. 3 spinach, yogurt, rhinoceros, almond

A child's brain needs a lot of love but also healthy food

Recipe:
Mash blueberries, add
1 tablespoon of oatmeal and yogurt.
Stir it up!

It's important to note that our brain, despite comprising only 2% of our body weight, consumes 20% of the body's energy. Therefore, it's crucial to nourish it properly.

WORKSHOP 3: Less more

Resources: sugar, jar, applications, spoon, bag, poster, plastic bottle, salt, potato.

It's my story:

Lena was turning the pages of a beautiful picture book when Sami came, sat down, and curiously asked, "What picture book are you looking at?"

"It's the Sugarcane picture book," Lena replied, "you know, about the sugar monster."

"A monster? You don't think it's scary, do you? Are you afraid?" Sami inquired.

Lena didn't answer immediately. "That monster is very cute, but unfortunately, he only eats sweet nonsense," she finally responded. "Come on, let me tell you what happened."

"Look, Sami, here is Sugarcane, the monster who only eats sweets, cakes, and candies every day," Lena began.





The story unfolds in Zdravko's toy box, where different monsters lived. There was Fruity, Greeny, Cereal, a drop called Watery, and Milky. Each of them felt good because they only ate healthy food.

"You know what that means, right?" Lena asked.

"I know," Sami replied. "That's how we learn in kindergarten."

"That's right," Lena continued. "But Sugarcane didn't even want to hear about such food."

One day, Zdravko invited all the monsters from his box to a birthday party. The table was filled with food, and Sugarcane's mind raced as he saw it all. He didn't know what to try first, what to taste, what to eat. He tried EVERYTHING. He ate all the cakes and sweets, crunched the candies and lollipops with his teeth. And in the end, he couldn't believe that colorful sugar horns had grown. His stomach hurt, his head was buzzing, and suddenly he fell. Everyone called for Zdravko, who took Sugarcane to the doctor for examination. The doctor told him to STOP eating sweets. Sugarcane was not allowed to eat sweets anymore because he would become even sicker. Now, only the newly grown horns and his name were sweet. Fruity, Greeny, Milky, and Watery helped him eat properly and became true friends.

Lack of proper nutrition in children can result in problems related to cognitive health and concentration

Childhood between 0-5 years is the most important stage in which nutrition is key, therefore Let's teach children to eat healthy

Suggested activities:

Experiment for Children:

This experiment aims to measure, using non-standard methods, the sugar content in various food products (such as chocolate, candy, etc.). Children can measure the sugar content in products using a spoon, using the sugar content information provided on the product label (e.g., 4 grams of sugar = 1 tablespoon of sugar). Then, they compare the products to identify those with the least and most sugar.

Game 1: Sweet Bottle:

A child-sized bottle is used for this game. Children engage in a conversation about how many sweets they consume in a day, including candies, cakes, cream, and lollipops. For each sweet treat mentioned, a few spoonfuls of sugar are added to the bottle until it is filled. Children then discuss the consequences of consuming too many sweets and whether there is room in the bottle for healthier options like apples or peas.





Game 2: Food Traffic Light:

A poster titled “Food Traffic Light” is displayed on the board. Children select food cards from a box and categorize them into three sections on the poster: green for foods always eaten, yellow for foods often eaten (with a suggestion to reduce consumption), and red for foods sometimes eaten (with a suggestion to limit consumption).

Game 3: Healthy Food Detective:

Children are divided into two groups, with each group designating “detectives” named Lena and Sami. Using a counter, they tally who consumes more healthy food. Each child selects food cards representing their preferred foods. The detective groups identify unhealthy foods and discuss their effects on the body with the children. This discussion includes quiz questions such as when to drink when thirsty, what to eat when hungry after kindergarten, and what to eat for breakfast.

Experiment with Potatoes:

One potato is cut in half, and the halves are placed in separate plastic containers. Salt is added to one bowl. After 30 minutes, children observe the changes in the potato that was exposed to salt. They learn that the potato has changed shape due to fermentation caused by the salt in the water. This experiment concludes with a discussion on the harmful effects of consuming too much salty food, such as chips, pretzels, and sausages, on the child’s body.

Consuming sugary foods can impair children’s cognition, flexibility, and memory. Instead, offer juicy apples.

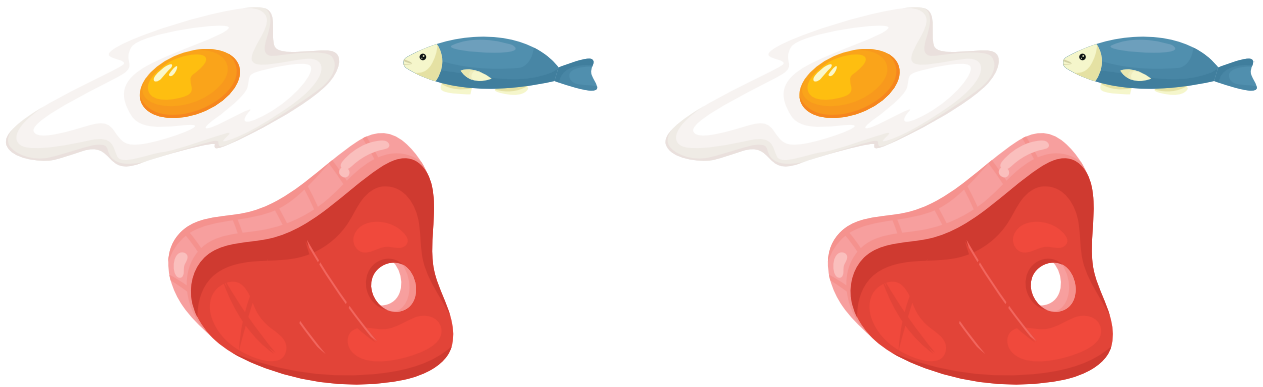
The period between 0-5 years of childhood is the most crucial stage for nutrition, making it essential to teach children healthy eating habits.



TOPIC 1 ATTACHMENTS: THE FIVE BEST FRIENDS

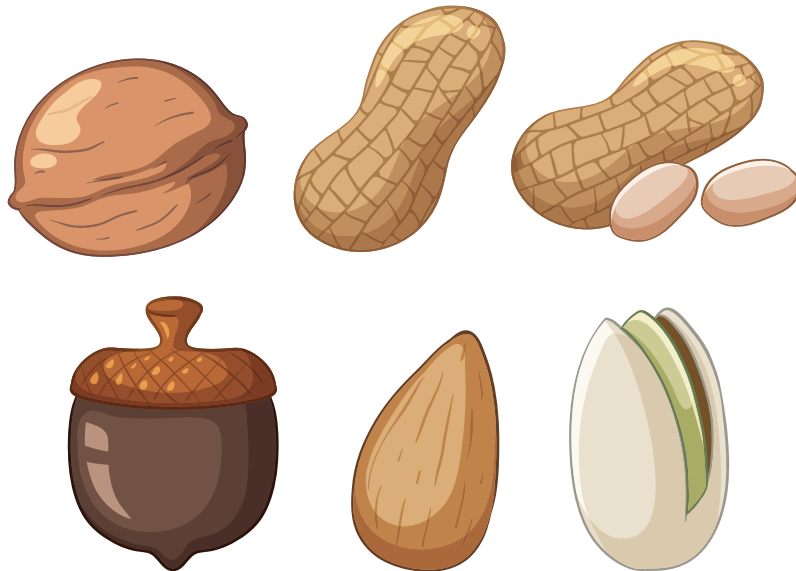
WORKSHOP 2: PROTEINS

ATTACHMENT: (ANIMAL PROTEINS)



Please list the animal proteins and match them accordingly.

ATTACHMENT: (PLANT PROTEINS)

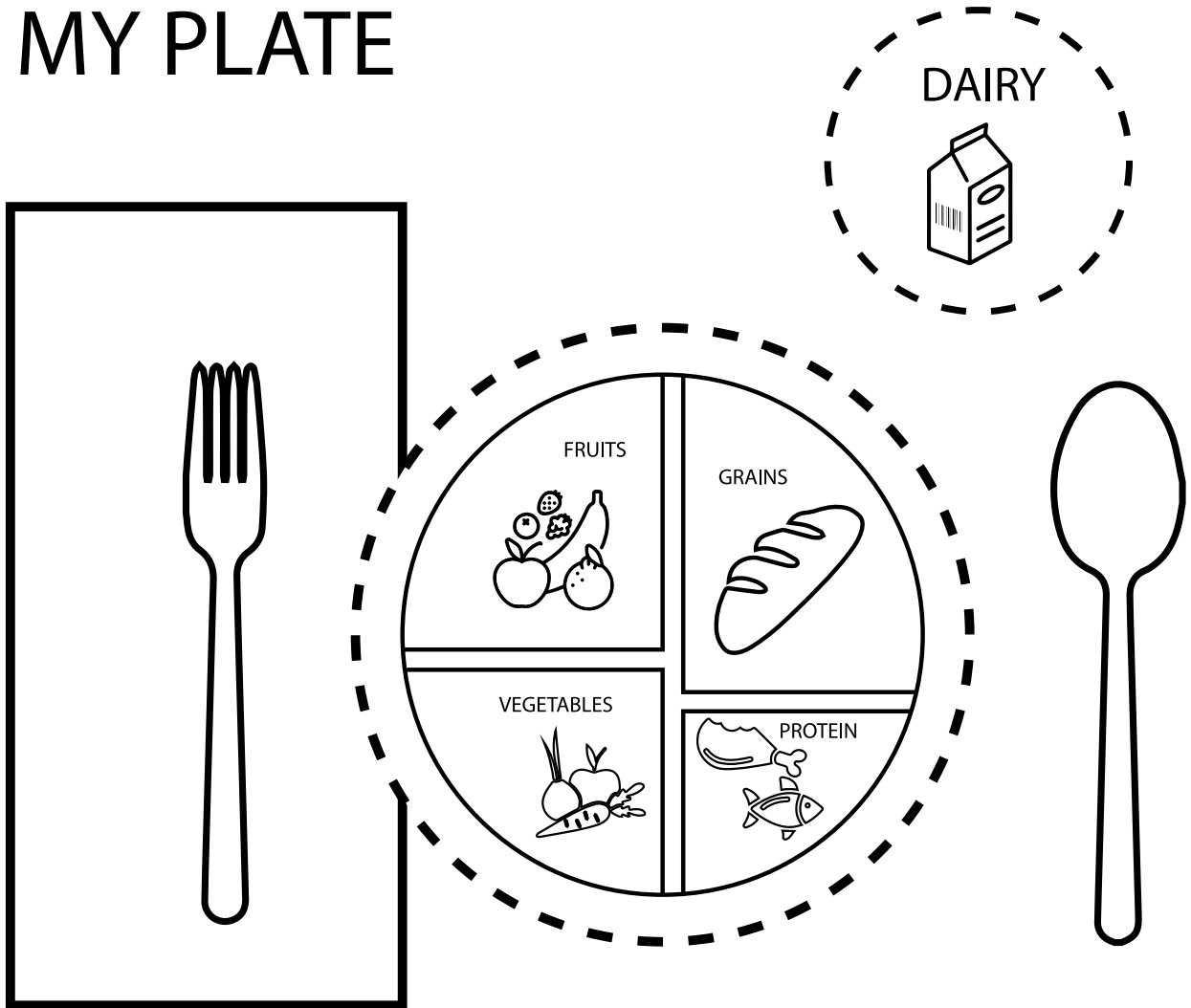


Please list the plant proteins and consider which meal they are typically consumed with: breakfast, snack, lunch, or dinner.

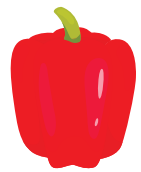
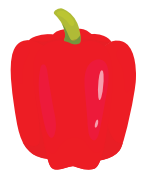
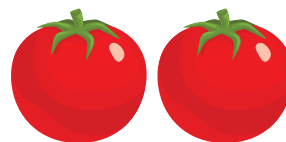
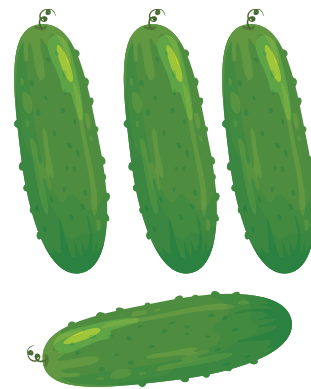
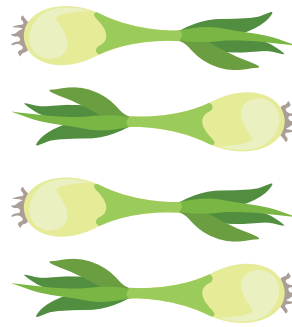
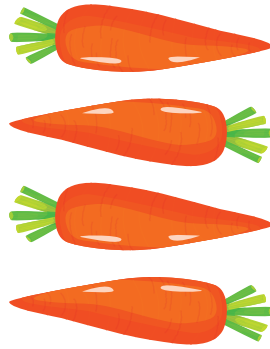
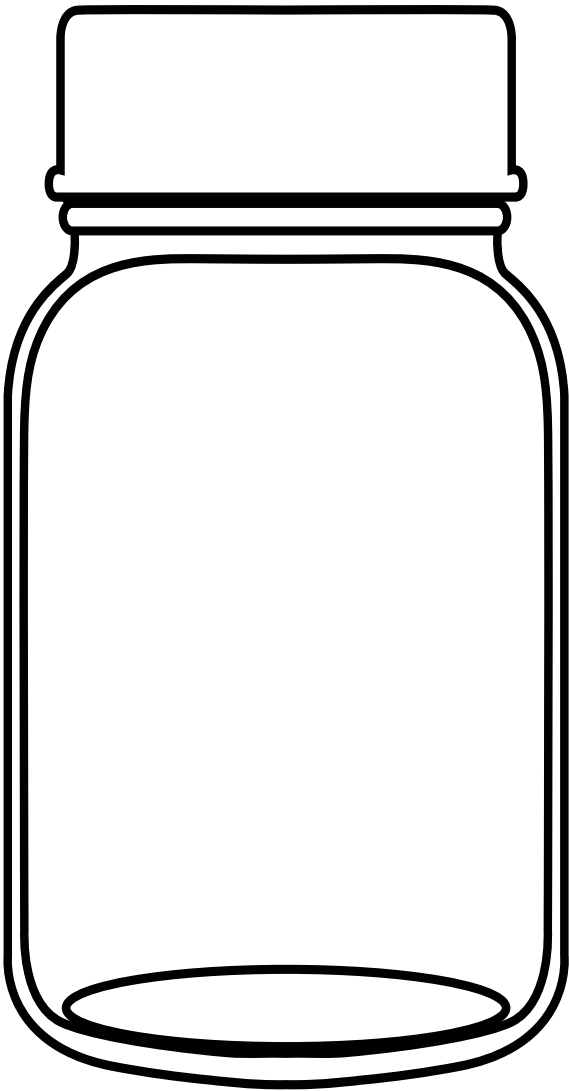
TOPIC 2: My magic plate

Workshop 1: Color and stick the pictures representing the 5 types of food in the appropriate places.

MY PLATE

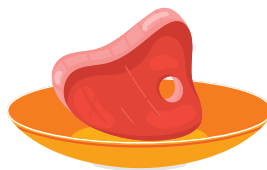
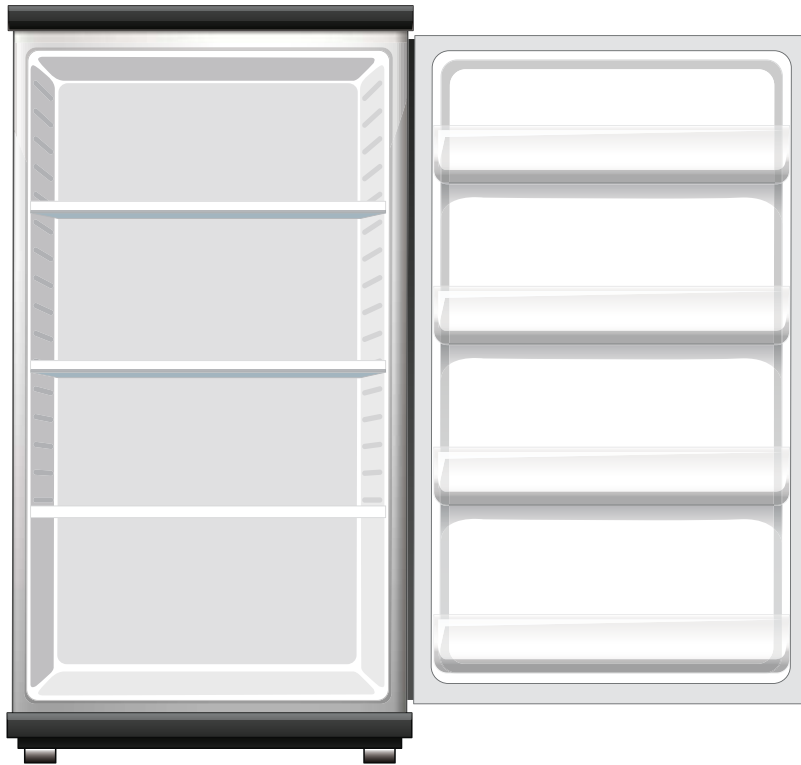


Workshop 2: Fill the jar with vitamins



TOPIC: 3 The food and my body

WORKSHOP 1: Food hygiene - cut out pictures of products that need refrigeration and place them in the appropriate location.

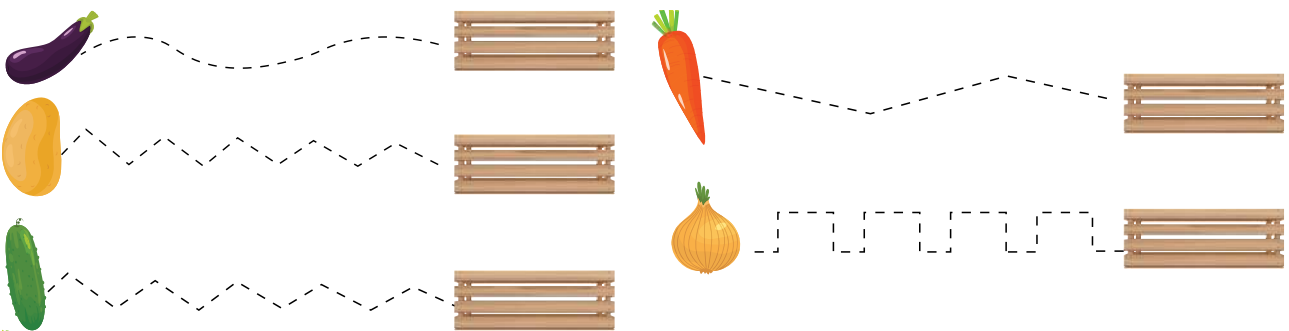


Topic 4: In a healthy body, a healthy spirit - I exercise every day

Game suggestion: "Find the way to the basket" - This game encourages children to identify vegetables and strategize how to place them in the basket. It can be played indoors or outdoors.

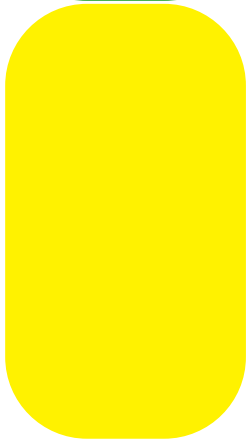
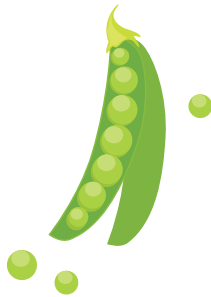
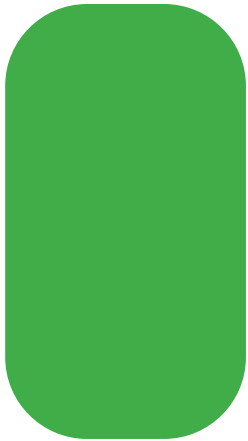


Game proposal: "**Vegetables in a basket**" -Children name and describe vegetables while moving along marked paths. The game is designed for open spaces with designated paths for various types of walking.



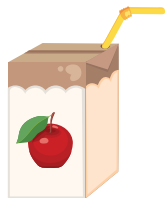
Topic 5 – Healthy living

Attachment: **Food traffic light**- In the corresponding categories of green, yellow, and red, children place foods that should be eaten always, often, and sometimes. This activity encourages them to develop healthy eating habits.



Attachment: **Knowledge Quiz** - We ask questions and add a smiley face for each correct answer.

When you're thirsty, what will you drink?



After coming home from kindergarten hungry, what's your plan for a snack?



What's on the menu for breakfast?

