

Classroom Curriculum Chart Learning objectives for nutrition education in primary schools in developing countries



GRADES AGE GROUP		Α	В	C	D	E	F	G	H
	TOPICS and SUBTOPICS	FOOD AND EMOTIONAL DEVELOPMENT 1. Sensory perception of foods • development of sensory awareness • children's feelings about eating, drinking and wellbeing 2. Food preferences • trying new foods 3. Body image, self-esteem 4. Responsibility • children's own responsibility • social responsibility	 those of others/different cultural groups Social significance of food and eating Meals and meal patterns variation in food habits (regional, cultural, religious) history of food and eating traditional foods Factors influencing own food choice (individual, psychological, environmental, socio-cultural factors) food availability and supply norms for eating behaviour, etiquette peer pressure media, advertising Settings for food consumption eating times special occasions 	FOOD, NUTRITION AND PERSONAL HEALTH 1. Food classifications	FOOD SUPPLY, PRODUCTION, PROCESSING AND DISTRIBUTION 1. Food supply	CONSUMER ASPECTS OF FOODS 1. Food quality 2. Food shopping • points of food acquisition (shop, market, supermarket, etc.) • skills in handling budget and food selection • interests of buyer and seller • planned vs. impulse buying 3. Advertising and marketing 4. Functions of packaging 5. Food labels • reading labels • regulations 6. Consumption patterns and environment 7. Consumer rights	FOOD PRESERVATION AND STORAGE 1. Food spoilage lifecycle of foods signs of food spoilage 2. Food preservation 3. Food storage in the home	FOOD PREPARATION 1. Preparation techniques and skills 2. Cooking techniques and skills 3. Planning 4. Serving food 5. Safety	HYGIENE AND SANITATION 1. Water
(6-7) Grade 1 and 2	 KEY QUESTIONS What do I eat and drink? How and when do I eat? What do other people eat and drink? How do I feel about eating and drinking? Can I feed myself? Why do I need food? Where does my food and water come from? How do we grow plants for food? Can I do it? How can I keep food and water clean and fresh? Can I help with shopping and preparing food? Can I keep myself clean? When must I wash my hands? 	 LEARNING OBJECTIVES 1. Sensory perception of foods to identify the taste, look, touch, sound and smell of a variety of foods and recognize them on this basis 2. Food preferences to know their own food preferences and to be aware of those of others to be aware that food is eaten for enjoyment to be prepared to try different foods 3. Body image, self-esteem to know that you are unique and special to appreciate that different persons have different body-shapes and sizes 4. Responsibility to be able to make decisions when offered simple choices to be able to feed yourself to take care of your own body 	 LEARNING OBJECTIVES 1. Eating habits and values to know their own eating habits and to be aware of those of others to describe which foods and drinks they consume to explain the importance of traditional foods to identify what other family-members at home, or friends, are eating and drinking 2. Social significance of food and eating to recognize how food relates to our culture and relates to social habits to enjoy a meal with others to participate in the work involved in preparing food 3. Meals and meal patterns to recognize the difference between meals and snacks to compare and know the difference between everyday foods and special foods (foods for festive occasions/ celebrations/cultural ceremonies) 5. Settings for food consumption to identify when food is eaten during the day 	 LEARNING OBJECTIVES 1. Food classifications to recognize different types of foods and drinks available in the community to identify foods important for growth and health (basic foods) 2. Functions of food for health to describe (by drawing) what food and health means to me to be aware of the need of food for growth, health and activity to understand the concept of growth and its relation to food 3. Dietary needs of different groups to recognize (basics) that different age groups and lifestyles need different foods and different amounts of food 4. Principles of healthy eating and diets to know that food needs to be chewed well to drink sufficient water each day to know that breakfast is a good starter meal for the day, and therefore important to know the importance of regular meals 5. Diet-related health risks and diseases to relate frequency of food consumption during the day to dental caries to realize the importance of dental hygiene for oral health 	 1. Food supply to know basic food plants and non-food plants to understand that all food originates from plants and animals and water to identify locally-available foods to realize that food is produced and transported to places where it is sold (basic stages of the food path) to know that foods start from raw material, e.g. flour-bread 2. Food gardens to practise simple skills in growing food 3. Food manufacturing and processing to understand that some foods need to be prepared in order to eat them to understand that some foods are made or changed in the factory 	 LEARNING OBJECTIVES 2. Food shopping to identify places where food is sold in the community to be able to assist in simple food shopping tasks to feel, smell and touch fresh vegetables and fruits 3. Advertising and marketing to identify different food advertisements 	 LEARNING OBJECTIVES 1. Food spoilage to realize that foods have a natural life cycle which ends in decay unless they are preserved or stored correctly to understand that decayed food, if eaten, will lead to illness 	 1. Preparation techniques and skills to be able to name the fuel and utensils needed to prepare food to enjoy simple tasks in food preparation 4. Serving food to be able to help with the serving of food 5. Safety to understand that caution is needed in the kitchen because of sharp instruments and hot surfaces, boiling water, fire, etc. 	 1. Water to understand that water is essential for all living things to identify water sources in the community and how water is used to recognize the importance of clean, safe water for drinking or preparing food to know the basics of safe storage of water for food and drinking to know that food and water should be covered when stored to know that it is dangerous to play in contaminated water 2. Personal hygiene to understand that hands should be washed before eating or touching foods 3. Food safety and hygiene to understand that fresh fruit and vegetables should be washed before eating 5. Waste disposal to throw away organic rubbish and food wrappers in appropriate places
(8-10) Grade 3, 4, 5	 How do foods taste? What do I choose to eat and why? What do others choose? What does it mean to be healthy? What is a healthy lifestyle? Do I have one? What does our community normally eat, when and how? What do different foods give us? What is a good diet? Do I have one? How can we have a good diet all the year round? Where do our foods come from? How are they grown/caught/processed? Why are foods labelled, packaged and advertised? How do I help with buying, producing, gathering and preparing food at home? How do we preserve food and keep it fresh? How and why should water be collected, stored, purified? How can I help? When and why must we wash our hands? 	 1. Sensory perception of foods to correctly identify the four basic tastes (salty, sweet, sour, bitter) to be able to discuss their own feelings when eating and drinking 2. Food preferences to be prepared to broaden the range of acceptable foods 3. Body image, self-esteem to recognize different rates of physical development to respect different body shapes and sizes to identify signs of good health and ill health 4. Responsibility to be aware of how they and other children spend money on food to recognize their own role in the food and water process and in the family (food production, preparation, helping with feeding younger children, fetching water, etc.) 	 Eating habits and values to be aware of differences in the eating habits of others compared to their own to identify what food is eaten by different members of the family Meals and meal patterns to be aware that different regions have different eating habits to be aware of different traditional foods, and the values attached to them to be able to describe the local diet (in terms of staple food, additions and variations) to be aware of the eating habits of grandparents, compared with their own Factors influencing food choice to become aware of some of the personal factors of their own food choices Settings for food consumption to identify the different social settings for food consumption in their own surroundings to recognize how many times a day they eat, and whether these are meals or snacks 	 1. Food classifications to identify local food that gives energy to identify local food for vitality (particularly vegetables, green leaves, fruits) to identify "extra" foods (snacks and sweets), their nutritional and social function to identify different types of drinks to classify local foods by: origin (plant/animal); cooked, processed, raw 2. Functions of food for health to understand why certain foods are important to health to be able to describe the relationship between being healthy and eating enough appropriate foods to know that foods contain nutrients and provide energy, needed for growth and activity 3. Dietary needs of different groups to realize that people of different ages have different food needs (lifecycle – in particular, babies and toddlers, schoolchildren, grown-ups) to experience the need for energy intake related to physical activity to experience the need for more liquids in hot weather to relate eating and drinking to individual needs (height, weight, age and activity) to recognize that breastmilk is the best for babies 4. Principles of healthy eating and diets to recognize that eating regularly is important to recognize that a variety of food is needed for health 5. Diet-related health risks and diseases to explain the consequences to health of eating too much or too little to recognize the importance of growth monitoring to recognize the importance of physical activity for health 	 Food supply to know where food comes from (basics of food chain/path) to identify the origin of certain plant and animal foods to describe which foods are obtained through farming, fishing, hunting or produced in factories to know the tools used in growing, hunting, and fishing foods to understand the importance of soil to describe how food was produced in the past Food gardening to start a food garden where feasible (with parent's or teacher's help) Food manufacturing and processing to explain the stages of processing: e.g. cereal grain – flour – product made of flour to realize that certain products are not easy to link with their original raw materials Food security to know the main factors influencing family food supply to understand that everyone needs to have sufficient food throughout the year to be healthy to recognize that differences of food availability exist in different regions Environmental aspects to be able to identify the basic environmental impacts of food production 	 1. Food quality to recognize rotten or spoiled vegetables, fruits and other foods 2. Food shopping to identify the different foods which are sold in different places (street, market, shop) to be able to do simple food shopping tasks 3. Advertising and marketing to be able to recognize an advertisement as a sales method 4. Function of packaging to know some environmental impacts of packaging 5. Food labels to recognize basic information on food labels such as the "best before" date 6. Consumption patterns and the environment to identify the costs of locally produced food and food that has to be transported to shops 	 1. Food spoilage to understand the ways in which food can become spoiled to describe what to do with left-over foods 2. Food preservation to know how to preserve different types of food (e.g. via packaging) to know the main locally practised food preservation methods to be familiar with the reasons for those practices 3. Food storage in the home to describe inappropriate methods of home storage that causes foods to spoil to understand the basic rules of hygiene for food storage (e.g. via clean containers) to know how to store different types of food 	 to be able to follow simple recipes to know the main locally practised preparation and cooking methods for (various) staple foods and other locally important food groups to be familiar with the reasons for those practices Cooking techniques and skills to know the reasons for cooking food to know simple techniques for preparing food: cutting, peeling, washing Safety 	 1. Water to know about water-borne diseases to be able to differentiate between clean and dirty water to be aware of safe water sources to be able to make water safe by purifying (chlorination) or boiling to understand the role of water in the body 2. Personal hygiene to know that common parasites, bacteria and viruses can be transmitted by dirty hands to understand the link between not washing hands after toilet use and food contamination to understand the causes of diarrhoea and its consequences 3. Food safety and hygiene to understand that before starting food preparation, hands, utensils and workplace need to be clean to understand that germs can cause illness to know that germs are found in many places and can be prevented from spreading 4. Diarrhoea to know how to prepare and use oral rehydration solutions (ORS) 5. Waste disposal to know the uses of organic waste (e.g. as food for livestock, compost) to know safe ways to dispose of waste water
(11-13) Grade 6 and 7	 What influences my eating habits? Emotional, social, cultural, economic, mental and physical factors. How and why do eating patterns change with time, place and culture? What are the nutrients in food? What happens to food in the body? How does diet affect health? Why do different people need different diets? Can I make some balanced meals for the family? How is our food produced and processed, and why? How can we produce a good diet all year round? Can I do the shopping well? (e.g. choosing, reading labels and ads, complaining) Why does food go bad? How can we keep it fresh and clean? How can we preserve food and its nutrients? How is water contaminated? How can we have safe clean water? How do we prevent diarrhoea? 	 1. Sensory perception of foods to realize that perceptions of flavour differ and influence food choice to be aware of the manner in which food is eaten and its relationship to the enjoyment of food 2. Food preferences to understand that it is possible to modify or adapt their own sense of taste and thereby change preferences 3. Body image, self-esteem to consciously identify the links between bodyimage, self-confidence, self-esteem, well-being and eating patterns 4. Responsibility to be aware of their own responsibility in choosing food and their personal limitations to identify community action for health to take responsibility for food related tasks in the household to explain the importance of breastfeeding to others to be able to help feed younger children and teach them simple food, water and hygiene tasks 	 1. Eating habits and values to compare their own choices with those of others in the group 2. Social significance of food and eating to appreciate and respect others' food choices and eating habits 3. Meals and meal patterns to be aware of the change in food choices and methods of preparation as compared to previous generations to identify what is nutritionally correct in traditional foods and what is not to recognize the significance of food for celebration to identify the food habits of different cultural, religious, ethnic and regional groups to be aware of eating habits and food styles in other parts of the country and the world 4. Factors influencing food choice to identify what influences their own personal food choices to recognize the influence of peer-pressure on their eating habits to recognize the influence of advertising on their food choices to be aware of the influence of the availability of products to be aware of economic considerations in food choices 	 1. Food classifications to be able to classify foods into groups according to their sources as well as nutrient content 2. Functions of food for health to realize the importance of nutrition for good health to recognize that nutrition is only one factor which influences health to be able to describe the links between eating enough appropriate food and health (physical, mental) to name and relate nutrients, water and fibre to their functions in the body to understand that proteins, fat and carbohydrates provide energy for the body which is needed for development to describe the functions of the different parts of the digestive system 3. Dietary needs for different groups to identify personal need for foods, based on nutritional needs according to age, weight and activity pattern to adapt the daily intake of food according to the changing requirements of the body as it goes through various stages of development to know the nutritional needs of pregnant and lactating women 4. Principles of healthy eating and diets to realize the relationship between energy intake (food eaten) and energy expenditure (activities undertaken) to realize the importance of vegetables and fruits as sources of vitamins and micronutrients to be able to compose mixed and balanced meals 5. Diet-related health risks and diseases to know the main causes of nutrient deficiencies and their prevention to be familiar with the links between malnutrition and disease to know that an imbalance in energy intake and energy expenditure has an effect on weight to understand the dangers of drinking alcohol growth monitoring: to know why it should be done and to be able to do it (basics) 6. Dietary guidelines and food guides to know (national) guidelines for healthy eating and	 1. Food supply to understand that plants are the basis of the food chain to identify food production systems and techniques in their own country (dairy farming, meat farming, vegetable growing, grains and cereals, subsistence farming) to understand the influence of climate on food production in their own country to understand ecological principles of food production (including crop rotation) to know which crops are suitable for growing in their region to know the basics of preventing and treating common plant pests 3. Food manufacturing and processing to relate processing of certain foods in their own country to products in the shops: milk, cheese, meat, bread, etc. to recognize some of the stages that original raw materials or products undergo in factories, and the difference between ingredients and end product to understand that foods are processed to: make them edible or more palatable; improve their storage qualities; for convenience; for making profit 4. Food security to know about the inequality of global food supplies to know the advantages and disadvantages of commercial versus subsistence farming to know how to compensate for seasonal variations in food supply to know how to disadvantages of having large and small families to know how to minimize post-harvest food losses 5. Environmental aspects to be able to identify important environmental impacts of food production: shifting culture; use of pesticides or natural means; transport; climate 	 1. Food quality to know some criteria of food quality: taste, smell, freshness and so on 2. Food shopping to be able to handle a shopping assignment (money, buying the right products) to identify different packages and wrappings of the same food item 3. Advertising and marketing to understand why and how advertisers influence people's food choices 5. Food labels to understand the information regarding appropriate storage of a food, as printed on its label to understand the concept of a product's shelf life to be able to read ingredient lists on labels 7. Consumer rights to increase self-efficacy skills in making complaints to food sellers concerning poor quality 	 1. Food spoilage to recognize when food is spoiled to understand the role of bacteria in food poisoning 2. Food preservation to recognize the different methods of preserving nutritional value and of reducing spoiling to describe traditional methods of processing and preserving foods 3. Food storage in the home to understand the principles of food storage at home (e.g. temperature, protection against insects/animals) to understand the use of cold storage in particular (i.e. a cool place, a refrigerator, a freezer) to understand that cooked foods need special storage 	 Preparation techniques and skills to experiment with different food preparation techniques: cutting, peeling, cooking, frying, stirring, etc. to prepare a simple meal for the home situation, taking others' wishes into account Cooking techniques and skills to be able to prepare (simple) meals or dishes for themselves to be able to measure ingredients for cooking Planning to know how to plan the process of cooking and preparing food Serving food to describe different ways of serving food Safety to learn how to use sharp utensils safely in food preparation 	1. Water 1. to identify ways in which water may be contaminated 1. to identify ways of protecting water and its sources 1. to identify local problems with safe water, sanitation and hygiene 1. to know how rain water can be conserved 3. Food safety and hygiene 1. to practise (WHO) guidelines for food hygiene 1. to understand that food can be contaminated through poor handling and unhygienic practices 1. to be aware of hygiene problems associated with foods sold by vendors on the streets 4. Diarrhoea 1. to know different ways of preventing diarrhoea 5. Waste disposal 1. to know how to create and use a compost heap
(14 – 16) Grades 8, 9, 10	 What is the food situation in my country and in the world? How are food habits changing? What are my key values regarding food, eating and health? Can I make food choices that are right for me? Can I recognize and handle all the influences and pressures? Can I help others to make good food choices? How does the body use the nutrients in food? What is a good diet, and why? How can we have a good diet all through the year? When do people have special food needs, and why? Can I take care of my own diet? Can I grow food? Can I budget and shop wisely for food for the household? How do I respond to food advertising? Do I know how to get information on food (e.g. national rules and guidelines)? Do I know how to prevent food spoilage? Can I plan and prepare meals for all the family? What are our local water problems? How can I make sure we have clean safe water? What are the main rules of food hygiene? Do I apply them? What are the symptoms and the causes of diarrhoea? How can we prevent it and how should we treat it? 	 Sensory perception of foods to be aware of their own changing perceptions of flavour Body image, self-esteem to feel comfortable with their own body-image and to respect the body-image of others to become aware of the processes of physical, emotional and social change to identify the emotional cues for eating to identify the need for change (self-evaluation of eating pattern) to feel confident in managing change (what, why, how, when) to identify incentives and reinforcements for their current eating behaviour Responsibility to develop self-management skills (decision-making; combating social pressure) to take responsibility for their own food choices to take others into consideration to share knowledge of food with others to take responsibility for explaining the advantages of breastfeeding, and correct weaning practices, to others to participate in the family and community tasks of food provision, preparation and hygiene to set an example to others of improved hygiene and eating practices 	 2. Social significance of food and eating to recognize that food preparation and eating is a social event 3. Meals and meal patterns to relate their own food habits to food in history to recognize food trends to identify the links between eating habits and the global food system 4. Factors influencing food choice to enhance their ability to make their own food choices to identify the links between eating habits and role patterns to understand and constructively manage peer-pressure to develop skills for overcoming barriers in the environment to be aware of media and social pressure 	 2. Functions of food for health to make connections between food and their present and future health to understand how the body processes food, making nutrients and energy available 3. Dietary needs of different groups to know and understand the nutritional needs of family members at different times: in normal health; in sickness; in pregnant and lactating women; in babies; in toddlers; in primary schoolchildren and older schoolchildren; in adolescents; in adult men and women; in elderly adults 4. Principles of healthy eating and diets to identify the constituents of a varied diet: carbohydrates, proteins, fats, fibre, vitamins, minerals and water to understand the need for a varied diet (because no single food contains all the essential nutrients) to apply the principles of variety in diet to recognize the importance of a balanced diet to assess diets at a food and nutrient level to be able to take care of their own meals and snacks to make informed choices concerning their own nutrition to be able to apply principles of balance and moderation to their own daily food intake to be able to choose food and balanced meals for a family – considering quality, cost and nutrition to identify what is nutritionally correct in lay beliefs about food and eating 5. Diet-related health risks and diseases to look critically at their own habits of alcohol intake and its effects to be able to assist in the growth monitoring of children to focus on the relationship between eating habits, diet-related diseases and disease prevention (specifically fat, sugar, fibre and energy) 6. Dietary guidelines and food guides to understand the implications of recommended daily food intakes to reflect on the use of such recommendations for personal needs 	 Food supply to understand the food path and ways in which it can be blocked to understand that food production methods often differ between countries to be aware of sustainable methods of food production Food gardens to develop and sustain their own food garden (with help) Food manufacturing and processing to realize that processing foods may affect nutritional value Food security to explain ways in which families try to ensure that there is sufficient food all year round to explain how governments ensure that there is sufficient food for all to eat throughout the year to be aware of unequal food distribution in the world to understand how personal food choices may affect the global food system Environmental aspects to recognize the ecological impact of food production practices such as the use of pesticides, fertilizer and biotechnology to recognize the environmental aspects of food production practices: climate, transport, packaging and waste 	 1. Food quality to understand quality issues in food, for example freshness, colour, smell, bruising 2. Food shopping to be able to prepare a shopping list to be able to establish a food budget for a given period of time to be able to buy according to their actual needs to compare prices and quality 3. Advertising and marketing to be able to understand the advertising techniques used in supermarkets, markets and other stores, and in the media to be able to think critically about the messages given by advertising 5. Food labels to know how to read the information on food labels (nutrient value, use of additives, expiration date, etc.) 7. Consumer rights to be aware of food regulations in their country to be able to look up national rules, regulations and guidelines on food declarations (regarding ingredients, additives, shelf life, etc.) to be aware of, and to be able to exercise, consumer rights, such as getting good quality for money and making complaints 	 1. Food spoilage to explain how food spoilage can be slowed down by the addition of substances such as vinegar, sugar, etc. 2. Food preservation to know different methods of food preservation (cooking, sterilization, freezing, canning, drying, etc.) to know that certain preservation techniques have an effect on nutritional value to understand why the food industry uses additives to know about new and community-based technologies for food preservation (sun-drying, etc.) 3. Food storage in the home to know how to store different foods and for how long to be able to read labels to get information on storage, additives used and production techniques used 	 1. Preparation techniques and skills to prepare a meal for the home, taking others' wishes into account 2. Cooking techniques and skills to apply different cooking techniques, use appropriate equipment and develop other skills of food preparation 3. Planning to know how to plan the process of cooking and preparing food 4. Serving food to arrange food in an appealing way when serving it 5. Safety to be able to use a range of kitchen equipment safely, confidently and independently to be able to respond appropriately in emergency situations 	1. Water 1. to identify local problems with safe water, sanitation and hygiene 1. to identify ways water is contaminated 1. to identify ways to protect water and water sources 2. Personal hygiene 1. to understand the life cycle of worms, their effects on the body and how to prevent them 3. Food safety and hygiene 1. to know the most important forms of food poisoning, their symptoms and treatment 1. to apply principles of food hygiene to real-life situations 1. to be aware that each individual can make a difference to their own survival 1. to know the (WHO) guidelines for food hygiene 4. Diarrhoea 1. to know the effects of diarrhoea 1. to know how to prevent diarrhoea 1. to know why replacement of fluid lost by diarrhoea is important 1. to be able to prepare and correctly administer oral rehydration therapy