



Nutrition Guidelines For Children Aged 2 to 6

For Kindergartens and Child Care Centres
Revised 2018



Nutrition Guidelines **For Children Aged 2 to 6**

For Kindergartens and Child Care Centres
Revised 2018

Lay a Solid Foundation of Health for our Children

Taking care of children is likened to the cultivation of plants, both requiring meticulous care and a favourable growth environment. With about 180,000 children attending kindergartens and child care centres (pre-primary institutions) in Hong Kong every year, the kindergarten and child care centre is considered an important place other than the home for supporting children's positive development. Indeed, the school setting plays important roles in fostering children's lifestyle habits, thereby promoting their health and preventing childhood obesity.

Increasing childhood obesity rate must not be ignored

Obesity has become an ever-increasing problem among local school children. Statistics from the Student Health Service of the Department of Health revealed that the proportion of overweight/obese primary one students rose from 11.3% in 1996/97 to 17.1% in 2008/09. Although the proportion of overweight/obese primary one students has slightly decreased, it remained at a considerable level of 11.8% in 2015/16. The numbers are saying that the overweight/obesity problem has been there before children entered primary school.

The World Health Organization stated in its report in 2002 that lack of exercise and poor dietary habits were the main causes of obesity. Many studies have pointed out that overweight or obese children are more likely to become obese when they grow up and are more prone to developing chronic diseases.

Build a supportive school environment for our children

Love for our children means more than showing them the right path. It also requires the creation of a healthy environment for them to grow. Apart from "knowledge" and "skill" transfer, kindergartens and child care centres also need to cultivate in children positive attitudes and practices in relation to healthy eating. These will help them develop healthily and prevent chronic diseases caused by poor dietary habits, avoiding unnecessary sickness and pain as they grow up. In this regard, the Department of Health, with the support of various government departments, the education sector and children's health concern groups, has launched the "StartSmart@school.hk" Campaign in 2011/12 and compiled the

Nutrition Guidelines for Children Aged 2 to 6. Its second revised edition was prepared in 2018. Together, these help school principals, teaching and catering staff offer food with balanced nutrition, facilitate the establishment of a healthy eating environment in the school and help children build up healthy eating habits. The Guidelines consist of three parts:

- (1) **Dietary recommendations for children:** This sets out nutritional needs and daily food intake of children; food selection and quantity for main meals, snacks and birthday parties; and keys to and techniques in menu planning.
- (2) **Recommendations on how to promote healthy eating in kindergartens and child care centres:** They are steps to take in formulating school-based healthy eating policy to create a healthy eating environment at school, nutritional topics to be included in teaching activities and ways to foster effective home-school cooperation.
- (3) **Common problems in children's eating habits:** Analysing the problem of picky eaters and the solutions, and correcting misconceptions about children's diet.

The Nutrition Guidelines for Children Aged 2 to 6 serves as a good reference for promoting healthy eating at school and for improving the quality of food provision. We also recommend kindergartens and child care centres to take a look at *the Physical Activity Guide for Children Aged 2 to 6*, which is useful for creating a healthy and active school environment. In addition, kindergartens and child care centres may use the "StartSmart@school.hk" Evaluation Form in Appendix 8 to assess and monitor their progress in establishing a healthy living school environment for students.

We believe the fostering of a healthy and capable new generation must rely on collaborative efforts of family, school and the community. We hope that kindergartens and child care centres could, by implementing the recommendations outlined in the guidelines, create supportive environments for children to grow healthily and happily!

Contents

Foreword : Lay a Solid Foundation of Health for Our Children	P.i
Part 1 Dietary Recommendations for Preschool Children	
I. Nutritional Requirements of Children Aged 2 to 6	P.2
Balanced diet Daily meal planning	
II. Quality and Quantity of Main Meals	P.5
Good practices Recommended ingredients and cooking methods for main meals Recommended servings for main meals Examples of dishes and soup for lunch	
III. Quality and Quantity of Snacks	P.8
Principles of supplying snacks Recommendations on food ingredients Recommended servings for snacks Example of home-made healthy snacks	
IV. Healthy Birthday Party	P.11
Common foods for birthday party and latent problems Recommended foods for healthy birthday party Tips for a healthy birthday party	
V. Notes on Healthy Cooking	P.13
Cooking methods Cooking oils Seasonings	
VI. Notes on Menu Planning	P.15
Balanced nutrition Regular mealtimes Attractiveness Food safety Special dietary needs Sufficient water intake Wise buying Six steps to menu planning	
VII. Questions	P.21

Part 2 Recommendations on How to Promote Healthy Eating in Kindergartens and Child Care Centres

I.	Healthy Eating Policy	P.24
	School healthy eating policy School healthy eating policy (Example)	
II.	Nutrition Education	P.29
	Topics on healthy eating Basic principles of selecting teaching materials on healthy eating	
III.	Home-school Cooperation	P.34
IV.	Questions	P.35

Part 3 Common Eating Problems of Children

I.	How to Handle the Problem of Picky Eating	P.38
	Understanding the extent of the problem Other ways to handle the problem of picky eating in school	
II.	Common Misconceptions on Children's Diet	P.39

List of Appendices

Appendix 1	Unit Conversion Table	P.43
Appendix 2	A Sample of One-day Menu	P.44
Appendix 3	A Sample of Four-week Menu	P.47
Appendix 4	Menu Evaluation Form and Examples	P.48
Appendix 5	Tools for Promoting Healthy Eating in Schools	P.50
Appendix 6	Handling Food Allergies among Children	P.51
Appendix 7	Review of School Healthy Eating Policy (Example)	P.53
Appendix 8	"StartSmart@school.hk" Evaluation Form	P.56

References	P.60
-------------------	-------------

Acknowledgements	P.61
-------------------------	-------------



Part 1

Dietary Recommendations for Preschool Children

- I. Nutritional Requirements of Children Aged 2 to 6
- II. Quality and Quantity of Main Meals
- III. Quality and Quantity of Snacks
- IV. Healthy Birthday Party
- V. Notes on Healthy Cooking
- VI. Notes on Menu Planning
- VII. Questions

I. Nutritional Requirements of Children Aged 2 to 6

1. Balanced diet

Early childhood is an important stage of physical growth and development. Children do not know how to plan or choose proper food as adults do. They do not know, based on their physical needs, how to express to their carers or schools their nutritional needs. Meal planning in pre-primary institutions and at home should be based on scientific evidence as well as objective and professional recommendations, thus laying a firm and solid foundation for the children's growth and future dietary habits.

Our energy needs vary according to race, age and other factors. We need to bear in mind dietary habits and cultural backgrounds of people when making recommendations on food. The recommendations in this part are made with reference to the local Healthy Eating Food Pyramid (Figure 1). Kindergartens and child care centres may refer to Table 1 for the recommended daily food intake for children aged between 2 and 6.

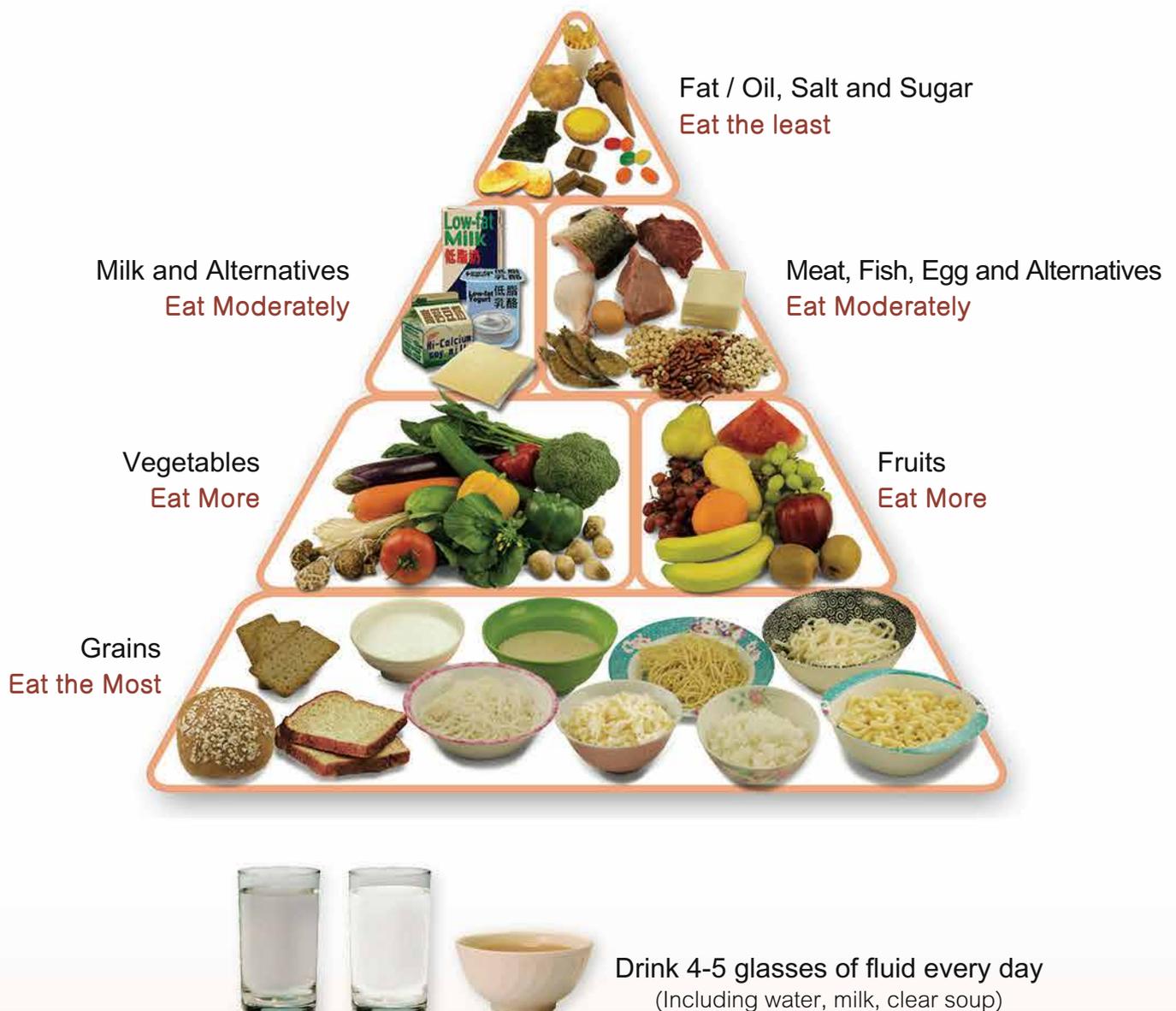


Figure 1. Healthy Eating Food Pyramid

Table 1. Recommended daily food intake for children aged between 2 and 6

Food category	Daily intake		Examples of one serving
	Nursery to Kindergarten 1 (N to K1)	Kindergarten 2 to Kindergarten 3 (K2 to K3)	
Grains	8 - 12 servings	12 - 15 servings	<ul style="list-style-type: none"> White rice (cooked), $\frac{1}{5}$ bowl or 1 tablespoon Macaroni (cooked), $\frac{1}{3}$ bowl Bread (without crust), $\frac{1}{2}$ slice
Vegetables	At least $1\frac{1}{2}$ servings	At least 2 servings	<ul style="list-style-type: none"> Vegetables (cooked), $\frac{1}{2}$ bowl Vegetables (uncooked), 1 bowl
Fruits	At least 1 serving	At least 2 servings	<ul style="list-style-type: none"> Medium-sized fruit (e.g. orange, apple), 1 piece Small-sized fruit (e.g. kiwi, prune), 2 pieces Large-sized fruit (e.g. banana, grapefruit), $\frac{1}{2}$ piece Pure fruit juice, $\frac{3}{4}$ glass (approx. 180ml)* Dried fruit, 1 tablespoon
Milk & alternatives (refer to as Dairy Products)	Approx. 2 servings	Approx. 2 servings	<ul style="list-style-type: none"> Low-fat milk, 1 glass Calcium-fortified, low-sugar soymilk, 1 glass Low-fat yoghurt, $\frac{2}{3}$ cup (approx. 150ml) Low-fat cheese, 2 slices (approx. 20g per slice)
Meat, fish, egg & alternatives	$1\frac{1}{2}$ - 2 servings	2 - 3 servings	<ul style="list-style-type: none"> Chicken, beef, pork and fish (cooked) 30g (size of a table tennis ball) Egg, 1 medium (approx. 50g) Silky tofu, 1 piece
Fat and Oil (Recommended amount of oil used for cooking)	Max. 6 servings	Max. 6 servings	<ul style="list-style-type: none"> Vegetable oils, 1 teaspoon Peanut butter, 2 teaspoons Salad dressing, 1 tablespoon

Remark: 1 glass = 240ml; 1 bowl = 250 - 300ml



Points to note

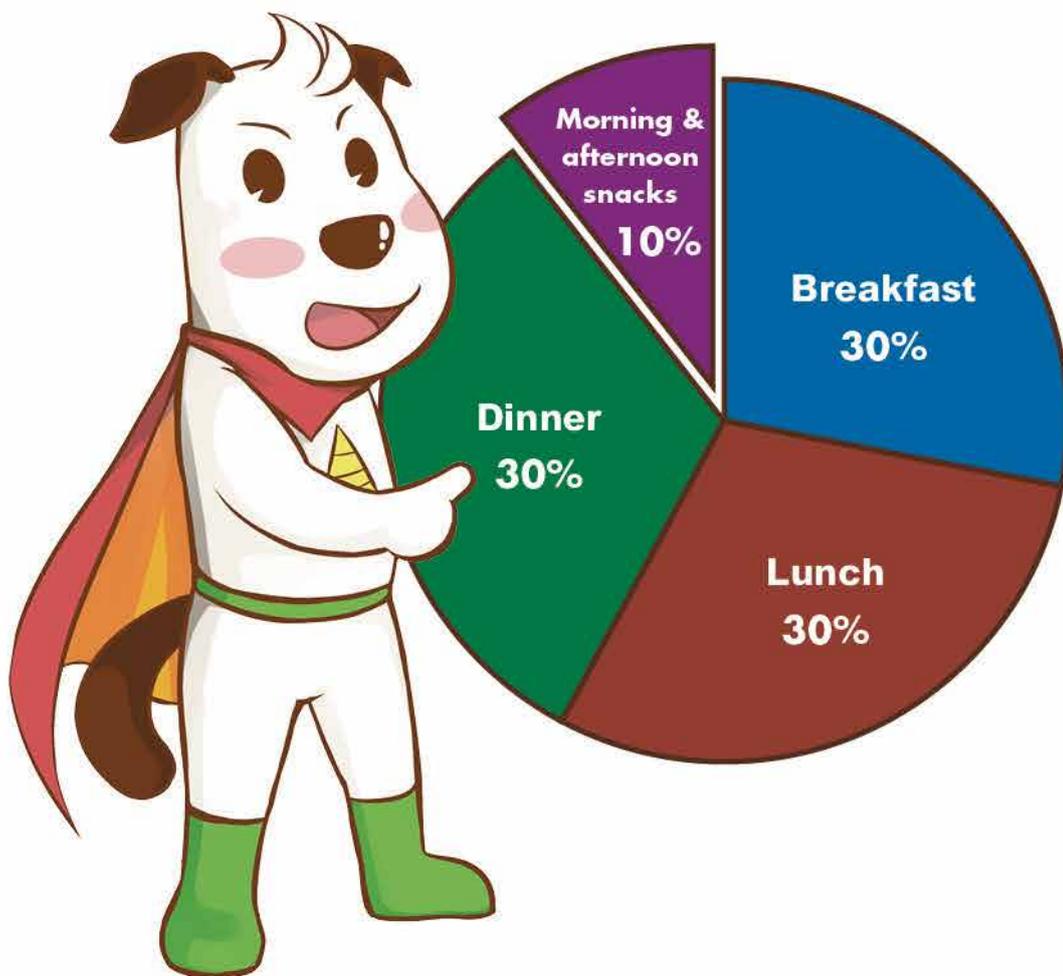
* Pure fruit juice has lower nutrition value than a whole fruit. For example, a $\frac{3}{4}$ glass (180ml) of pure fruit juice contains about twice the energy of an orange and 3 teaspoons of sugar but only $\frac{1}{6}$ dietary fibre when compared with an orange. Taking a $\frac{3}{4}$ glass (180ml) or more of pure fruit juice a day would only count as one serving of fruit. Thus, children should be encouraged to take a whole fruit. It is also recommended that pure fruit juice not be consumed on a daily basis or more than 2 days a week.

2. Daily meal planning

To meet the biological needs of school children, most kindergartens and child care centres provide meal services. Those with whole-day sessions have to prepare breakfast, lunch and mid-meals, implying that children have two-thirds of their daily food intake in the institutions. Kindergartens and child care centres have to design and provide nutritionally balanced meals with a variety of food items to meet children's daily nutritional needs and to help them develop good dietary habits.

Main meals and snacks should be planned carefully. Each **main meal (i.e. breakfast, lunch or dinner)** should provide **one-third of daily energy and nutritional needs** (see Table 3 for recommended intake) while snack sessions should provide the rest (see Table 6 for recommended intake). Kindergartens and child care centres may refer to the Sample of One-day Menu in Appendix 2 for proper meal planning.

Also, we encourage kindergartens and child care centres to regularly communicate with parents about food intake of their children at school, so that adjustments can be made at home to meet the daily nutritional needs of children accordingly.

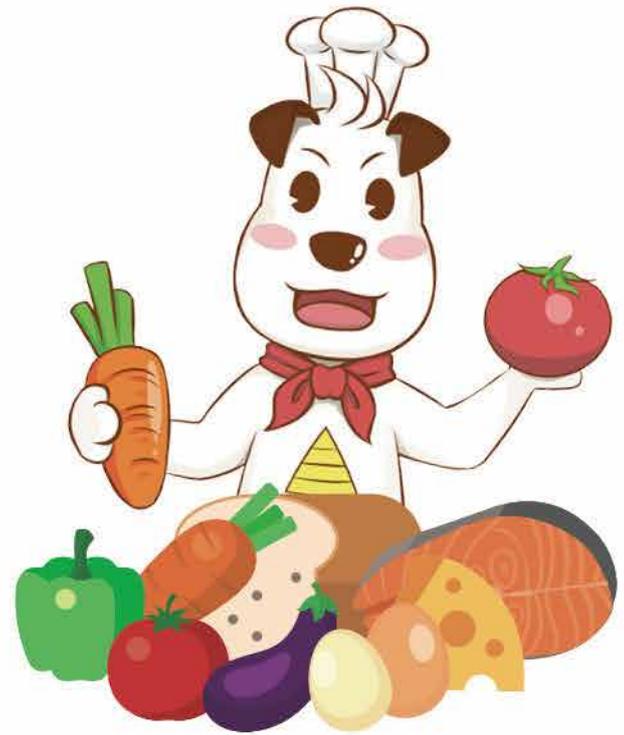


II. Quality and Quantity of Main Meals

1. Good practices

Healthy eating not only emphasises balanced nutrition and food variety but also means:

- ◆ regular mealtimes (schedule main meals 4 - 6 hours apart)
- ◆ main meals consisting of grains in the largest amount, followed by vegetables and then meat (or alternatives) in the least amount
- ◆ choosing fresh and healthy ingredients and avoiding semi-processed products or processed products with added salt, oil or sugar
- ◆ removing visible fat from meat and skin from poultry before cooking
- ◆ avoiding the use of monosodium glutamate (MSG) and seasonings that are high in sugar or salt; also limiting the use of salt, soy sauce and oyster sauce due to their high sodium contents
- ◆ adopting low-fat cooking methods, e.g. steaming, poaching or stir-frying with little oil



2. Recommended ingredients and cooking methods for main meals

Table 2. Recommended ingredients and cooking methods for main meals

Type of Food	Food to Choose (Fresh and natural food containing less salt, fat and sugar)	Food to Avoid (Food containing more salt, fat and sugar, e.g. processed food, deep fried food)
Grains	<ul style="list-style-type: none"> • red rice, brown rice, rice with sweet corn, rice with vegetables, white rice, congee • rice vermicelli, macaroni, alphabet pasta, udon • wheat bread, multi-grains bread, white bread • potato 	<ul style="list-style-type: none"> • fried rice • stir-fried noodles, E-fu noodles, instant noodles, oily noodle (yau mian) • puff pastry or stuffed bun (e.g. croissant, pineapple bun, barbecued pork bun, custard bun) • French fries
Vegetables	<ul style="list-style-type: none"> • fresh leafy vegetables, mushrooms, squashes • frozen vegetables • dried vegetables (no added salt, oil, sugar) 	<ul style="list-style-type: none"> • pickled vegetables (e.g. preserved mustard root, preserved mustard green, dry fermented mustard green, pickled Chinese cabbage, salted vegetables, fermented cabbage and garlic, pickled cucumber) • canned vegetables (e.g. bamboo shoot soaked in oil) • dried vegetables (with added salt, oil, sugar, e.g. salted & deep-fried seaweed)

Type of Food	Food to Choose (Fresh and natural food containing less salt, fat and sugar)	Food to Avoid (Food containing more salt, fat and sugar, e.g. processed food, deep fried food)
Fruits	<ul style="list-style-type: none"> fresh fruit frozen and dried fruit with no added salt or sugar 	<ul style="list-style-type: none"> canned fruit frozen and dried fruit with added salt, oil or sugar (e.g. cranberry)
Meat, fish, egg & alternatives	<ul style="list-style-type: none"> fresh lean meat (e.g. pork, beef) skinless poultry fresh and frozen meat and fish, dried fish with no added salt eggs dry beans and non deep-fried soy products (e.g. bean curd, soybean sheet) 	<ul style="list-style-type: none"> processed or canned meat (e.g. ham, bacon, sausage, barbecued pork, Chinese preserved sausage, luncheon meat, corned beef, Sichuan pork) ready-made meatballs or products (e.g. fish ball, beef ball, pork ball, siu-mai, dumplings) poultry with skin or fatty cuts of meat (e.g. chicken wing and paws, offal, beef brisket, pork jowl, ribs, pork bone) lime-preserved egg, salted duck egg, salted fish "soy chicken" (rolled sheet), textured vegetable protein deep-fried soy products (e.g. fried bean curd puff, fried bean curd stick)
Dairy products	<ul style="list-style-type: none"> low-fat milk (original flavour), low-fat cheese (children aged between 2 and 5 are recommended to choose low-fat dairy products, and children aged above 5 to choose skimmed or low-fat ones) 	<ul style="list-style-type: none"> whole milk, chocolate milk, full-fat cheese, evaporated milk, condensed milk
Fat and oil	<ul style="list-style-type: none"> olive oil, canola oil, corn oil, soybean oil, peanut oil margarine with no trans fat 	<ul style="list-style-type: none"> butter, lard, coconut cream, vegetable oil added with coconut oil or palm oil margarine with trans fat cream
Seasonings	<ul style="list-style-type: none"> natural ingredients, spices and herbs (e.g. onion, button mushroom, tomato, orange, lemon, spring onion, garlic, tangerine peel, turmeric, parsley, cinnamon leaf) tomato paste 	<ul style="list-style-type: none"> ready-made high-salt seasonings (e.g. monosodium glutamate (MSG), chicken powder, fish sauce, fermented bean curd, red fermented bean curd) sauce made with canned soup ready-made sauces (e.g. seafood sauce, fermented bean sauce, white sauce, tomato sauce)
Cooking method	<ul style="list-style-type: none"> steaming, boiling, baking/roasting, stir-frying with little oil, pan-frying with little oil (No more than 2 teaspoons of cooking oil each meal per person) 	<ul style="list-style-type: none"> deep-frying

3. Recommended servings for main meals

Main meals are divided into breakfast, lunch and dinner. Kindergartens and child care centres may refer to Table 3 for the recommended serving size to provide children with an appropriate amount of food.

Table 3. Recommended servings for main meals (per meal)

	N to K1	K2 to K3
Grains	Approx. 3 servings	Approx. 4 servings
Vegetables	Approx. $\frac{1}{2}$ serving	Approx. 1 serving
Meat, fish, egg & alternatives	Approx. $\frac{1}{2}$ serving	Approx. 1 serving
Oil (for cooking)	Not more than 2 servings	Not more than 2 servings

Note: See Table 1 for examples of one serving



Points to note

The recommendations in Table 3 are for reference only. Considering that each child has different needs for energy or food intake, the types and quantity of food provided in main meals and snacks may supplement each other and adjustments can be made (see Appendix 2 for examples) to meet the daily nutritional needs of children. For example, some whole-day kindergartens and child care centres may provide bread (grains) and milk (dairy product) for breakfast. For lunch and dinner (if applicable), they should increase the amount of vegetables and meat to make up what have been missing in breakfast. For half-day kindergartens and child care centres, if dairy products are provided at breakfast time, other types of food such as grains or fruit should be provided as snacks (for recommended serving size on snacks, please refer to Table 6).

4. Examples of dishes and soup for lunch

Dishes	Soup
Stir-fried Shrimps with Sugar Snap Peas and Cucumbers	Broccoli Chowder
Spaghetti with Assorted Beans on Tomato Sauce	Snakehead Mullet Soup with Apples and Water Chestnuts
Eggplants with Minced Pork	Chayote, Flathead Fish, and Lean Pork Soup
Sole Fillet with Sweet Corn and Pumpkin Sauce	Carrot Soup with Sweet Corn, Water Chestnuts and Lotus Root
Beef Sautéed with Bell Peppers	Pumpkin, Tomatoes, Red Beans and Lean Pork Soup
Steamed Chicken Fillet with Daylily, Black Fungus & Mushroom	Watercress Soup with Beef



Points to note

Soup is a source of fluid intake. Children may also drink water, low-fat milk or low-sugar soymilk as alternatives but water remains the best option. Also, lean meat, fruit and vegetables are recommended ingredients for preparing soup. Avoid using chicken paws, pork bone, oxtail and ribs for Chinese soup. (Refer to "Common Misconceptions on Children's Diet" in Part 3.)

Note: For recipes, please visit the website of the StartSmart@school.hk campaign at www.startsmart.gov.hk.

III. Quality and Quantity of Snacks

Generally, pre-school children grow rapidly and are highly active. As they have a small stomach, they may not be able to obtain all the necessary nutrients from main meals. Hence, most kindergartens and child care centres provide snacks on a daily basis as a supplementary source of energy, nutrients and water or to make up for losses during activities.

Healthy snacks serve as a supplementary source of nutrition. However, choosing food items that are high in fat, sugar or salt may result in obesity or other negative impacts on health. For example, children will not be able to obtain all the necessary nutrients if their appetite for main meals is spoiled, which would in turn adversely affect their growth and development.



1. Principles of supplying snacks

- ◆ Provide foods rich in nutrients, such as dietary fibre, vitamin C, calcium, that are beneficial to health but children may not adequately obtain from main meals.
- ◆ A variety of food that is "3 low 1 high" (i.e. low fat/oil, low salt, low sugar and high dietary fibre) should be provided. No artificial sweeteners or caffeine should be found in food. This is to avoid children developing a liking for sweet food and to prevent from adversely affecting their sleeping pattern or learning performance.
- ◆ Snacks should be served in small amounts (Table 6) in order not to spoil children's appetite for main meals.
- ◆ An interval of at least 1.5 - 2 hours should be kept between the intake of snack and main meal.
- ◆ Take snack once only between main meals, and serve only water at other times to reduce the risk of tooth decay.

2. Recommendations on food ingredients

Kindergartens and child care centres may refer to Table 4 for "Recommendations on food ingredients for healthy snacks" as a basic guide in preparing snacks for the day. For whole-day sessions, please refer to Table 4 for "Other food ingredients" if other types of food are needed to be provided during snack time for balancing the whole-day menu. More food examples are given in the "Sample of Four-week Menu" in Appendix 3.

Since half-day kindergartens and child care centres may not be able to provide children with freshly-made food every day due to a lack of cooking facilities, or tight schedule at school, pre-packaged products such as biscuits and cakes may be provided during snack times. These products, however, contain more trans fat, saturated fat, salt or sugar than fresh foods. They are not recommended to be provided on a daily basis.

Kindergartens and child care centres should refer to the recommendations in Table 4 to choose fresh and easy-to-make snacks (e.g. wholemeal bread, bread rolls, fruit and low-fat milk) or choose items in the list of pre-packaged food under "Snacks to Choose in Moderation" in Table 5 when necessary.

Table 4. Recommendations on food ingredients for healthy snacks

Recommended food ingredients for snacks	
Dairy products	<ul style="list-style-type: none"> Low-fat milk, low-fat cheese, low-fat plain yoghurt (original flavour with no added sugar) Calcium-fortified, low-sugar soymilk (Low-fat milk for children aged between 2 and 5, and skimmed or low-fat milk for children aged above 5 are recommended.)
Grains	<ul style="list-style-type: none"> Rice vermicelli, macaroni, alphabet pasta, udon Oatmeal, wholemeal bread, multi-grains bread, white bread, raisin bread, steamed bun Baked mashed potato or home-made baked potato skin
Fruits	<ul style="list-style-type: none"> Fresh fruit Dried fruit with no added sugar (e.g. apricot, prune or raisin) Dehydrated fruit chips with no added salt, oil and sugar
Bread spread (use a small amount by spreading a thin layer)	<ul style="list-style-type: none"> Margarine with no trans fat Peanut butter Jam with no added sugar Salad dressing Avocado
Other drinks	<ul style="list-style-type: none"> Water Low-sugar soymilk or soymilk with added oatmeal
Other food ingredients	
Vegetables	<ul style="list-style-type: none"> Fresh vegetables (e.g. cucumber, carrot, cherry tomatoes), boiled sweet corn kernels
Meat, fish, egg & alternatives	<ul style="list-style-type: none"> Fresh lean meat (e.g. pork, beef) Skinless poultry Canned tuna in spring water Egg Bean curd dessert with no added sugar Dry-roasted nuts with no added salt or sugar

Table 5. Types of pre-packaged food

Snacks to Choose in Moderation (advised not more than twice a week)	Snacks to Choose Less (should be avoided)
<ul style="list-style-type: none"> High-fibre breakfast cereals or cereal bars Soda crackers, plain biscuits, high-fibre wheat biscuits 	<ul style="list-style-type: none"> Cakes, chocolates, sandwich biscuits or cookies Potato chips or crisps Instant noodles



Points to note

Most biscuits and cakes contain more trans fat, saturated fat, salt or sugar than fresh food. They are not healthy snack choices to be provided on a daily basis. For more nutritional information about biscuits and cakes, please refer to "Common Misconceptions on Children's Diet" in Part 3.

3. Recommended servings for snacks

Most kindergartens and child care centres have their snack time between breakfast and lunch or soon after the afternoon nap. A small amount of snack is adequate for children. Kindergartens and child care centres may refer to the recommendations in Table 6 to prepare snacks for children during the day.

Table 6. Recommended servings for snacks

Recommendations	
Whole-day school (Two snacks a day)	Morning snack: $\frac{1}{2}$ serving of fruit Afternoon snack: 1 serving of dairy products and/or 1 serving of grains (Provision of morning/afternoon snacks may be altered according to circumstances of individual kindergartens and child care centres)
Half-day school (One snack a day)	1 serving of dairy products or 1 - 2 serving(s) of grains or $\frac{1}{2}$ serving of fruit

Please refer to Table 1 for examples of a serving of food.



Points to note

The recommendations in Table 6 are for reference only. Children should take around 2 servings of dairy products and 1 to 2 serving of fruit every day as recommended by the Healthy Eating Food Pyramid. Kindergartens and child care centres are advised to provide these two types of food in snack times as per the recommendations. If these two types of food cannot be provided every day, parents should be informed through effective means of communication (e.g. circular or student handbook) so that they can make appropriate meal arrangement at home, ensuring that children can have adequate dairy products and fruit every day as part of a balanced diet.

4. Examples of home-made healthy snacks

Snack	Drink
Banana and peanut butter sandwich	Low-fat milk
Pancake with jam	Calcium-fortified, low-sugar soymilk
Oatmeal with milk and raisins	Lemon water
Congee with pumpkin and sweet corn	Water
Boiled sweet potato	Coixseed water



Points to note

- Dairy products, a major source of calcium, are important to the growth and development of children. It is a good everyday choice for snack.
- If milk powder is used, low-fat or skimmed milk are recommended. It should be reconstituted as instructed on the package.
- Whole milk is not recommended. Avoid sweetened dairy products (e.g. chocolate milk, flavoured milk, etc.) or adding sugary ingredients such as sugar, evaporated milk or condensed milk into milk.
- Malted instant drinks instead of milk prepared from milk powder should be avoided because they generally contain a large amount of sugar.

IV. Healthy Birthday Party

Birthday party is a monthly or bi-monthly celebration event for most kindergartens and child care centres. It is also one of the most favourite activities for children in school. However, most of the party foods such as sweets, chocolate, potato chips, sausages are high in salt, fat and sugar, and there is a lack of fruit and vegetables as well. These unhealthy party foods may evoke a happy mood in children, thereby adversely affect the cultivation of healthy dietary habits. To help children establish good dietary habits, kindergartens and child care centres may take this opportunity to provide 'nutritious' food for children so that they will be able to learn about and develop a liking for healthy food.

1. Common foods for birthday party and latent problems

To make a change in the arrangement of birthday parties, we must first understand how party foods affect our health.

Common foods in birthday party	Latent problems
 Deep-fried fish fillet (deep-fried food)	Deep-frying increases the fat and energy contents. One hundred grams of deep-fried fish fillet contains 7 times more fat and 2 times more energy than steamed or baked fish fillet of comparable weight.
Sausages	A lot of sodium (salt) is added during food processing, and frequent consumption of high salt food may lead to hypertension. The amount of salt of 3 sausages (each about 45g) exceeds the daily recommended intake for a child per day.
Potato chips	It is high in energy, fat and salt with about 60% of the energy coming from fat. The salt content of a small pack of potato chips (about 25g) is $\frac{1}{5}$ of the daily recommended intake for a child per day.
Sweets	About 75% of energy come from sugar. The sugar content of a pack of sweets (about 50g) exceeds the daily recommended intake for a child per day. Regular eating of food high in sugar increases the risk of tooth decay.
Chocolate	It is high in energy, fat and sugar. Over 85% of energy come from fat and sugar. A pack of milk chocolate (about 34g, small size) contains energy more than half a bowl of rice. Dark chocolate contains 50% less sugar but 3 times more fat than milk chocolate.
Fruit-flavoured drinks/ cordials	Do take a look at the 'ingredient list', and you will discover that these drinks contain mainly 'water' and 'sugar' with only little 'juice' and nutrients. Providing children with these drinks is similar to giving them sugary water.



Points to note

Cream cake is high in energy and fat. The energy content of a piece of cream cake (about 100 g) is the same as that of $1\frac{1}{2}$ bowl of rice and the fat content constitutes about $\frac{1}{5}$ of the daily recommended intake for a child per day. As for nutrients essential for growth, a piece of cream cake contains less protein than an egg! Thus for birthday party and other celebrations, plain sponge cake or cupcake is preferred to cream cake. Decorating a plain sponge cake with fresh fruit of different colours can also produce an atmosphere filled with fun.

2. Recommended foods for healthy birthday party

Kindergartens and child care centres may refer to "Recommendations on food ingredients for healthy snacks" in Table 4 for food preparation in a birthday party. They may also refer to the following table for a happy, healthy and yummy birthday party.

Type of food	Example	
Cake	<ul style="list-style-type: none"> Sponge cake 	<ul style="list-style-type: none"> Cupcake (plain)
Special treats	<ul style="list-style-type: none"> Tomato cups with tuna Avocado and tuna sushi hand roll Sweet corn mashed potato balls 	<ul style="list-style-type: none"> Fish and egg roll Carrot pancakes with onion and sweet potatoes
Drinks (Remember to provide sufficient amount of water)	<ul style="list-style-type: none"> Home-made apple and pear drink/ sugar cane herbal drink Lemon water Pure fruit juice with no added sugar* 	<ul style="list-style-type: none"> Low-sugar soymilk Low-fat milk

* Pure fruit juice has lower nutrition value than a whole fruit. It is relatively higher in energy and sugar content. Thus, children should be encouraged to take a whole fruit. It is also recommended that pure fruit juice not be consumed on a daily basis or more than 2 days a week.

3. Tips for a healthy birthday party



Points to note

At birthday parties, kindergartens and child care centres should provide food as usual. There is no need to provide food high in fat, salt and sugar (e.g. sausage, ham, chicken wing) intentionally. Otherwise, children may associate these types of food with happiness, thus affecting the cultivation of positive dietary attitudes.

- ◆ Use healthy ingredients (Table 4) to prepare healthy and delicious food for children or participants at birthday parties. Create a fun-filled atmosphere by providing diversified food items of different colours and shapes that are appealing to children.
- ◆ Through student handbook or notice, kindergartens and child care centres may inform parents of the healthy food to be provided in the party. Parents are also encouraged to prepare home-made food that are considered appropriate under the school's healthy eating policy for the party. Through this approach, parents can be educated on how to put healthy eating into practices and discouraged to bring unhealthy food to school, which in turn facilitates imparting healthy eating knowledge to children and cultivation of their healthy eating habits.
- ◆ If deemed necessary, encourage the use of other gifts, including stationery, stickers, storybooks, towel case and cartoon cutlery, as birthday presents instead of food items.



Points to note

There are many ways to create fun-filled parties or celebrations. Such occasions can be celebrated through means not relating to food. Playing games or making crafts (e.g. birthday hat design), classroom decoration, costume party and magic performance will all bring memorable moments. Activities involving a higher physical activity level (e.g. dancing contest or hurdle race) can also be arranged for a happy and energetic birthday party.

V. Notes on Healthy Cooking

1. Cooking methods

Healthy cooking methods not only bring out the best from food but also reduce the oil content of a dish. The following are some healthy cooking methods and cooking tips:

Table 7. Healthy cooking methods

Recommended cooking methods	Cooking tips for kindergartens and child care centres
Steaming (No oil is needed)	<ul style="list-style-type: none"> • Egg: Apart from plainly steamed egg, you may add vegetables to the egg mixture to help children eat more vegetables. • Meat and poultry: Remove the visible fat or skin before cooking. • Seafood: The original taste of seafood can be preserved through steaming. Bones and shells should be handled carefully before providing to children. • Vegetables: Water-soluble vitamins can be preserved in the vegetables through steaming. Pumpkins, tomatoes, turnips and eggplants are some appropriate choices.
Blanching, boiling	<ul style="list-style-type: none"> • Vegetables: To minimise the loss of nutrients during cooking in water or blanching, remember to use boiling water, use water just enough to cover the vegetables, and control cooking time, try to cook stems before leaves.
Baking/ grilling	<ul style="list-style-type: none"> • Most food, meat, squash and root vegetables (e.g. pumpkins, eggplants, zucchini and sweet potato) can be baked/ grilled.
Stir-frying with little oil	<ul style="list-style-type: none"> • Use little oil to prevent children from excessive intake of fat, thus reducing the risk of obesity. • Reduce the use of oil by using a non-stick pan or frying food items after blanching. No more than 2 teaspoons of oil should be used in seasoning and cooking for each person in each main meal.



Points to note

Avoid deep-frying when preparing food for children.



2. Cooking oils

It is recommended that no more than 2 teaspoons of oil should be used in cooking for each person in each main meal. Kindergartens and child care centres should choose healthier vegetable oils such as peanut oil, canola oil, corn oil or olive oil for cooking.



Points to note

Try to avoid using oil/ fat rich in saturated fat, such as butter, lard, palm oil, coconut oil, coconut milk or cream etc., when preparing or cooking meals for children. Read the ingredient list on the food packaging when buying vegetable oils to make sure that they do not contain fats and oils as mentioned.

3. Seasonings

According to the *Chinese Dietary Reference Intakes (2013)*, the daily proposed sodium intake for children aged 4 to 6 should be less than 1200mg (i.e. about $\frac{1}{2}$ teaspoon of salt or 1 tablespoon of soy sauce). For children aged 2 to 3, try to avoid adding sodium-containing seasonings to their foods.

Excessive intake of sodium in long-term will lead to chronic diseases such as hypertension and heart diseases. When cooking for children, we should reduce the use of processed or cured food which is high in salt. The amount of salt and high-salt seasonings used for cooking should also be limited. Kindergartens and child care centres may refer to the following recommendations on seasoning:

- ◆ Use more natural and fresh spices and ingredients such as ginger, garlic, spring onion, onion, a trace amount of pepper, lemon, orange, vinegar and herbs.
- ◆ Make a sauce with fresh fruit and vegetables. Examples are tomato sauce, pumpkin sauce, sweet corn sauce and spinach sauce.
- ◆ Put fresh fruit into the dishes (e.g. stir-fried meat with dragon fruit, steamed meat patty with apple cube) to enhance their taste and flavour.



Points to note

When cooking or making sauces, avoid ready-made sauces or seasonings that are high in salt.

- **Ready-made sauces:** curry sauce, Portuguese sauce, teriyaki sauce, white sauce, black pepper sauce, satay sauce, and sauces made with canned soup etc.
- **Ready-made seasonings:** fermented bean curd, red fermented bean curd, chicken powder, monosodium glutamate (MSG), seafood paste, fermented soybean paste, etc.

VI. Notes on Menu Planning

Before planning for the menu, kindergartens and child care centres should aim at cultivating children's healthy eating habits by providing them with healthy and delicious food. In planning healthy menus, kindergartens and child care centres should take note of the following seven key points and then evaluate the nutrition quality with the "Menu Evaluation Form" in Appendix 4 upon completion of menu planning.



Seven keys to menu planning

1. Balanced nutrition
2. Regular mealtimes
3. Attractiveness
4. Food safety
5. Special dietary needs
6. Sufficient water intake
7. Wise buying

1. Balanced nutrition

For balanced nutrition, plan meals based on the Healthy Eating Food Pyramid and the principle of "3 low 1 high" (i.e. low-fat/ oil, low-salt, low-sugar and high-fibre) to promote children's growth and development and learning ability. For recommendations on ingredients, quantity and cooking methods, please refer to Sections II, III and V in Part 1.

2. Regular mealtimes

Frequent eating may lead to excessive food intake. Children have a great need for energy and nutrients which have to be replenished regularly. An appropriate eating timetable is therefore very important to children. Kindergartens and child care centres may consider the following when planning meal time and food quantity:

- ◆ There should be a time interval of 4 to 6 hours between main meals.
- ◆ There should not be more than one healthy snack between main meals. The amount of snack should be small so that the appetite for main meals will not be spoiled. There should be an interval of at least 1.5 to 2 hours between the intake of snack and main meal because frequent eating increases the risk of tooth decay.
- ◆ Refer to the "Recommended servings for main meals" in Table 3 and "Recommended servings for snacks" in Table 6 for meal planning. The types and quantity of food for main meals and snacks should be considered together to meet the daily nutritional needs.
- ◆ Planning of a cycle menu can avoid repetition, keep children interested in food and ensure a balanced nutrition. It is suggested to set menu of 2-week cycle or longer.

3. Attractiveness

Children are interested in exploring the world around them. They are curious about everything including food. Kindergartens and child care centres could, therefore, make dishes more attractive and interesting with food items of different types, colours, shapes and textures.

A large variety of ingredients will provide different nutrients for making attractive dishes with numerous combinations. Kindergartens and child care centres may refer to the "Sample of Four-week Menu" in Appendix 3, which provides tips to create different dishes using simple ingredients with minimal repetition. New food items may also be introduced so that children can try food with different tastes or textures.

Before providing new food items, kindergarten and child care centres may first introduce the food items in teaching activities. Children will be more willing to accept these items after learning about them in advance.

Children usually do not like food that is too hard, too dry or too sticky, or that may lead to choking (e.g. nuts, cherries with stones or meat with bones). Safety issues must be taken into consideration before the provision of these food items. Appropriate procedures should be followed during preparation or cooking. Children may need to try many times (about 10 times or more) before accepting a new item, so do not stop providing an item simply because the child has no interest in it.



4. Food safety

Apart from the food quantity and nutritional quality, kindergartens and child care centres have to follow food safety principles when providing food for children. Food hygiene and choking are areas of safety concern. When designing the meal menu, kindergartens and child care centres may make proper arrangements by referring to the following table:

Table 8. Notes on food safety

	Food hygiene	Choking by food
Important points to note	<ul style="list-style-type: none"> • Sufficient cooking facilities • Proper purchase and delivery procedures • Proper storage facilities to maintain appropriate temperature • Adherence to food processing and cooking principles • Proper way of food handling when food is served • Maintaining good personal hygiene 	<p>High-risk items include:</p> <ul style="list-style-type: none"> • Small, round and hard items • Fruit with stones or seeds • Fish with bones • Nuts, dry beans • Hard candies • Chewing gum • Popcorn • Cubes of nata de coco • Big pieces of food that cannot be cut into smaller pieces 
Physical reactions	Symptoms of food poisoning: nausea, abdominal pain, diarrhoea, vomiting	Symptoms of choking: Coughing, lips turning blue, wheezing, breathing difficulty, shock
Serious consequences	Unhygienic food processing procedures may lead to food poisoning or even death in serious cases.	Choking may lead to obstruction of airway. In serious cases, choking may result in coma due to lack of oxygen supply to the brain or even death due to suffocation.
Related information and website	"Food Safety Guidelines on Catering Services for Children" of the Centre for Food Safety: http://www.cfs.gov.hk/english/multimedia/multimedia_pub/files/children_catering.pdf	Handling of choking: http://www.pco.gov.hk/tc_chi/resource/files/child_4-5_Basic_handling_of_choking.pdf (Chinese version only)

5. Special dietary needs

Religion and culture

Some religious followers have certain dietary rules to follow. For example, Buddhists eat vegetarian dishes while Muslims do not eat pork. With different food preferences in different culture, kindergartens and child care centres should take into consideration the religious and ethnic/ cultural background of children or work with parents to provide suitable food.

Food allergy

When children suffering from food allergy come into contact with the food allergens, they will have some abnormal reactions. Death may occur in serious cases. Kindergartens and child care centres must cater for the special needs of these children with proper arrangements made regarding meal provision, administration, emergency response and communication with parents. Please refer to "Handling Food Allergies among Children" in Appendix 6.

Other special health conditions

Special meal arrangements should be made for those with diseases or certain health conditions (e.g. lactose intolerance, G6PD deficiency and diabetes). Kindergartens and child care centres must be highly alert to the health condition of the children and work closely with family for meal arrangements. Consult a family doctor, paediatrician or dietitian when necessary.

6. Sufficient water intake

Apart from providing nutritious food for children, kindergartens and child care centres should also provide potable water to keep children hydrated:

- ◆ An average daily intake of 4 to 5 glasses of fluid (including water, low-fat milk, clear soup, etc.) is recommended (1 glass = 240 ml).
- ◆ High temperature and increased physical activity level will increase fluid loss. Extra water may be required.
- ◆ Water is the best choice.



7. Wise buying

You may choose quality and healthy food and save money by following the recommendations for wise buying below:

- ◆ When choosing pre-packaged food items, check the package for ingredient information, the nutrition label and claims to make sure that the food items meet the nutritional needs of children and the principles of healthy eating.
 - ◇ Nutrition claims: Select items with "low sugar", "low salt", "low fat" or "high fibre".
 - ◇ List of ingredients: The ingredients are listed in descending order of weight or volume, so select food items with salt, oil or sugar listed near the end of the list of ingredients, implying that there is less sodium, fat or sugar.
 - ◇ Be aware of saturated fat or trans fat: to avoid palm oil, coconut oil, margarine, butter, shortening and hydrogenated vegetable oil, etc. that are high in saturated fat or trans fat.
 - ◇ Watch for hidden sodium: Other than table salt, sodium is often found in processed food items. Canned food or items containing these ingredients: monosodium glutamate (MSG), sodium bicarbonate and sodium benzoate should be avoided.
 - ◇ Check the expiry date: Take note of the "best before" or "use by" date to ensure that the food is fresh. Note down the expiry date before storing the food and store them based on the "first-in-first-out" principle to ensure that food which was purchased earliest or with a sooner expiry date will be consumed first, thus reducing the wastage due to food spoilage.
- ◆ Seasonal fruit and vegetables are good for value. Choose quality fruit and vegetables with attractive colours and stronger aroma.
- ◆ Prepare a bulk purchase list based on the meal menu. Negotiate a better price and long-term cooperation with shops nearby. Check whether there is sufficient storage space and whether the food can be consumed before expired.



Related links

For more information on nutrition label, please visit the website of the Centre for Food Safety of the Food and Environmental Hygiene Department: <http://www.nutritionlabel.gov.hk>

8. Six steps to menu planning

- Step 1**
Set a menu cycle and daily meal schedule
- Set a menu cycle, e.g. a 2-week cycle or a 1-month cycle, to minimise repetition
 - Keep an interval of 4 to 6 hours between main meals
 - Keep an interval of at least 1.5 to 2 hours between snack and main meal, and serve snack only for once
-
- Step 2**
Select food for main meals and snacks
- Refer to "Dietary Recommendations for Preschool Children" in Part 1 for healthy ingredients and cooking methods
 - Plan main meals and snacks, then collect recipes
 - Check whether a wide variety of ingredients are used to make different combinations daily (Refer to "A Sample of Four-week Menu" in Appendix 3)
 - Check whether the food is attractive to children and whether it is economically feasible
 - Check whether food choices, food preparation and cooking processes comply with the principles of food safety. For example, is the food handled in a hygienic condition? Will there be a risk of choking?
 - Provide grains in the largest amount, followed by vegetables, and then meat, fish, egg & alternatives in the least amount in main meals
 - Serve fruit in one of the snack sessions every day
 - Check whether water is the main beverage provided in most of the meals
-
- Step 3**
Determine the servings for each person
- Refer to Table 3 for "Recommended Servings for Main Meals (per meal)" and Table 6 for "Recommended Servings for Snacks" and determine the servings of different types of food for each person in each meal
 - Flexibly arrange the food quantity for main meals and snacks. The servings and types of food for main meals and snacks may supplement each other
 - Prepare additional vegetables as well as grains for those who need extra
-
- Step 4**
Evaluate the menu
- Assess the menu by using the "Menu Evaluation Form" in Appendix 4 and check whether the principles of healthy eating are followed. If necessary, amend the menu and follow up with the responsible staff
-
- Step 5**
Review by parents or parties concerned
- Inform the catering staff and parents of the menu and meal arrangement as soon as possible and collect their views
 - Communicate closely with parents to:
 - Check whether special arrangement is required for individual students who have special dietary needs (e.g. religion, culture, food allergy or special health condition)
 - Notify the provision of food (e.g. dairy products or fruits) that may be inadequate in school meals, so that the daily nutritional requirements of children can be met by adjusting their food intake at home
 - Consult professional advice (e.g. dietitian) when necessary
-
- Step 6**
Monitor meal provision and improve menu in future
- Monitor the provision of meals and check whether the food items provided are consistent with those specified in the menu
 - Monitor the meal quality daily in the following ways:
 - Taste all dishes to ensure that they are lightly flavoured
 - Collect views of the children and teachers
 - Observe children's response while they are having the meals
 - Check the amount of food waste
 - Collect views and monitor results regularly to improve future menu

VII. Questions

- According to the "Healthy Eating Food Pyramid", children in K2 and K3 are recommended to consume at least _____ of fruit each day.
 - $\frac{1}{2}$ serving
 - 1 serving
 - $1\frac{1}{2}$ servings
 - 2 servings
- "One serving" of fruit is approximately equivalent to:
 - 1 small plum
 - 1 banana
 - 1 medium-sized apple
 - 1 glass (approximately 240 ml) of pure fruit juice
- According to the Guidelines, children should be encouraged to eat a whole fruit and pure juice should not be consumed on a daily basis. This is because:
 - pure fruit juice contains less sugar and energy.
 - pure fruit juice contains more dietary fibre.
 - a whole fruit has a lower price than juice.
 - a whole fruit has a higher nutritional value than juice.
- According to the "Healthy Eating Food Pyramid", children in N and K1 are recommended to consume at least _____ of cooked vegetables each day.
 - $\frac{1}{4}$ bowl
 - $\frac{1}{2}$ bowl
 - $\frac{3}{4}$ bowl
 - 1 bowl
- Dairy products are a major source of calcium. Which of the following is recommended for school?
 - Low-fat milk
 - Full-fat milk
 - Chocolate milk
 - Milk prepared with milk powder and added with condensed milk or evaporated milk
- It is recommended that snack should only be served once between main meals. Which of the following is **not** a recommended serving size for snack?
 - $\frac{1}{2}$ serving of fruit
 - 1 glass of low-fat milk
 - 1 slice of wholemeal bread
 - 1 bowl of macaroni
- Water is the healthiest beverage. How many glasses of water should children drink at least each day?
 - 3 to 4 glasses
 - 4 to 5 glasses
 - 5 to 6 glasses
 - 6 to 8 glasses
- Which of the following is **not** a method for reducing sodium (salt) in meals?
 - Use sauce made with canned soup more frequently.
 - Use less salt and soy sauce when marinating meat.
 - Use more natural and fresh spices and ingredients, such as ginger, garlic, spring onion and onion for cooking.
 - Make sauce with fresh fruit and vegetables. Examples are tomato sauce, pumpkin sauce and sweet corn sauce.

Answers

1. D (please refer to P. 3)
2. C (please refer to P. 3)
3. D (please refer to P. 3)
4. C (please refer to P. 3)
5. A (please refer to P. 6, 9-10)
6. D (please refer to P. 10)
7. B (please refer to P. 2, 18)
8. A (please refer to P. 5, 14)



Part 2

Recommendations on How to Promote Healthy Eating in Kindergartens and Child Care Centres

- I. Healthy Eating Policy
- II. Nutrition Education
- III. Home-school Cooperation
- IV. Questions

I. Healthy Eating Policy

By establishing a "healthy eating policy", kindergartens and child care centres can effectively formulate plans on healthy eating in a pragmatic way and lay down a solid foundation for the promotion of healthy eating in a sustainable manner.

1. What is a "school healthy eating policy"?

"School healthy eating policy" is an objective laid down in writing by the school management and other stakeholders (e.g. teachers, parents) after deliberation in accordance with circumstances pertaining to the school. Such policy will then be disseminated to all its members including school personnel, the catering staff, parents and students so that everyone could follow.

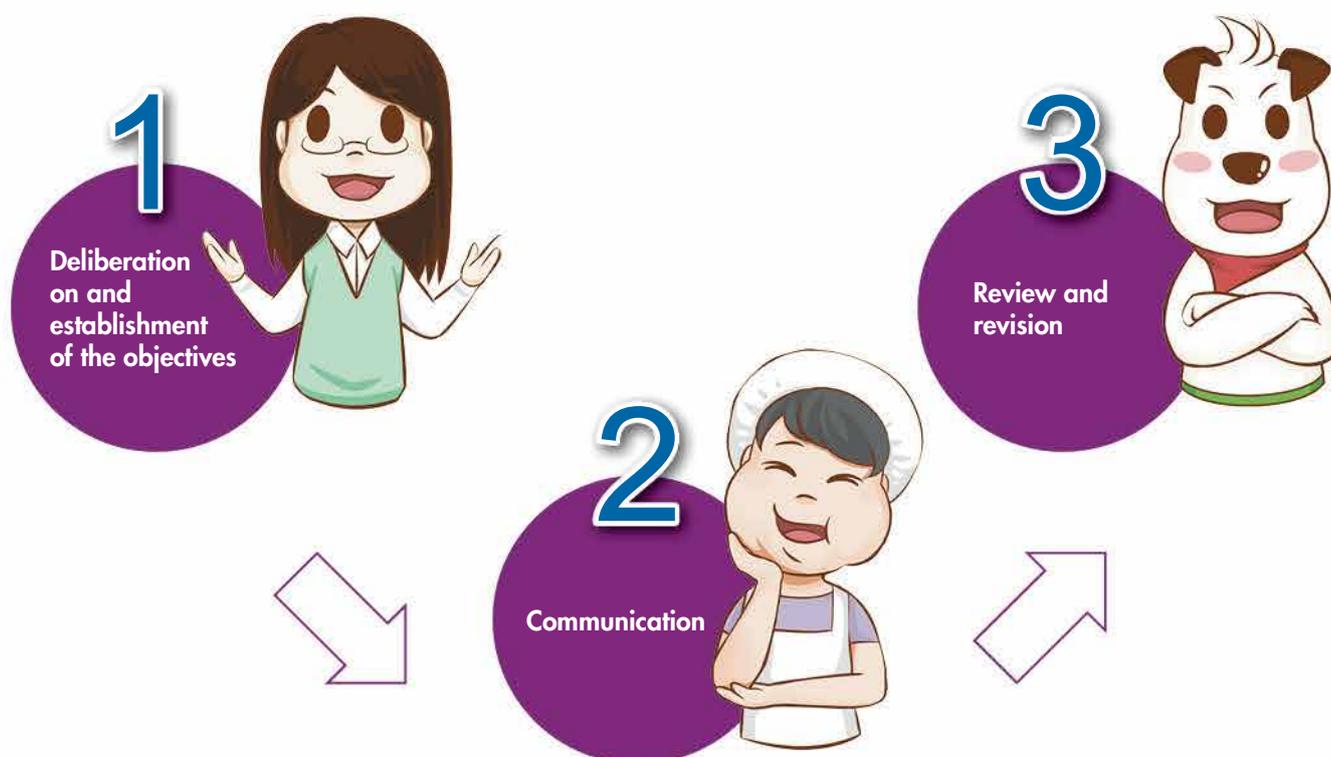
2. Why is it necessary to establish a specific "school healthy eating policy"?

- ◆ To ensure sufficient resources have been allocated for implementation of a comprehensive and sustainable healthy eating policy in school
- ◆ To create a supportive school environment and atmosphere so that consumption of healthy food is made easier and more pleasurable, thereby promoting and maintaining healthy eating habit
- ◆ To enhance the awareness of balanced nutrition among students, teachers and parents and to promote healthy lifestyles



3. How to formulate a "school healthy eating policy"?

Kindergartens and child care centres may refer to the following steps to formulate their healthy eating policy in accordance with circumstances pertaining to the institutions:



Step 1: Deliberation on and establishment of the objectives

A policy-making group comprising the principal, teachers and parent representatives (e.g. parent members of Parent-Teacher Association (PTA)) should assess the knowledge, attitude and behaviour of students and parents on healthy eating as well as their understanding on the eating environment of the kindergarten and child care centres. The group should then draft a healthy eating policy tailored to the circumstances of their school before submitting for deliberation, amendment and endorsement by the school personnel. The adopted policy should be observed by all parties of the school.

Step 2: Communication

Kindergartens and child care centres would regularly and repeatedly remind all school personnel of the policy and keep parents informed by issuing notices and making announcements on the school website (if applicable).

Step 3: Review and revision

To review the implementation of the policy annually and make revisions when necessary (see Appendix 7 for examples), so that the objectives of school policy can be attained with adequate manpower and resources.

4. Example of school healthy eating policy (for reference only):

The following example of "School Healthy Eating Policy" sets out comprehensive measures encompassing school administration, lunch provision, snack arrangement as well as education and publicity. By modifying this template, kindergartens and child care centres can formulate their own policy and pragmatic measures pertaining to their own settings and further implement these measures in a clear and orderly manner.

StartSmart Kindergarten Healthy Eating Policy

Policy Statement:

Our school is committed to promoting the importance of healthy eating to our students, school personnel, teaching staff, catering staff and parents, on a long-term basis. This is achieved by establishing a healthy eating environment conducive to developing and making a habit of healthy eating in everyday life.

Our school will adopt the following measures in order to implement the above policy statement.

1. School administration

- ◆ To appoint at least one designated staff to set up a committee or group with parents as members to assist the formulation and implementation of healthy eating policy.
- ◆ To inform school personnel, the catering staff and parents of the school healthy eating policy and all relevant measures every year.
- ◆ To review and revise school healthy eating policy and implementation of various measures by means of meetings, questionnaires and face-to-face interviews in each school year.
- ◆ (For the school meal arrangement committee) To review the policy, draft amendments and consult other staff and parents. The revised policy should come into effect upon the principal's approval.
- ◆ To ensure that the staff in charge of healthy eating promotion/ meal arrangement receives adequate support, including manpower, resources as well as time for organising activities and attending related training.

2. Meal arrangement

- ◆ To give priority to children's nutritional needs, nutritional value of food and hygiene when designing menus and preparing events on special occasions on which food will be supplied (e.g. birthday party). Institutions are advised to follow the recommendations in the "Nutrition Guidelines for Children Aged 2 to 6" issued by the Department of Health.
- ◆ To post the school menu, including the ingredients used, on notice boards and/ or website for parents' reference every month so that they will know what their children are eating at the institution.
- ◆ To issue a notice at the beginning of a school year to encourage parents, who tend to bring food from home, to follow the healthy eating policy of the institution and prepare food that in compliance with the recommendations of the "Nutrition Guidelines for Children Aged 2 to 6".
- ◆ To monitor the type, nutritional quality and hygienic condition of food by the meal arrangement committee. In each school year, the committee conducts a review with the catering staff and follows up any areas for improvement.
- ◆ To provide meals at regular time every day in a comfortable environment. Children and school personnel should be provided with sufficient time to eat.
- ◆ To forbid any promotion on unhealthy food at the institution and refuse any sponsorship of school activities by manufacturers of such food.
- ◆ To encourage children to drink plenty of water and provide them with potable drinking water.

3. Education and publicity

- ◆ To organise at least one promotional activity on healthy eating in each school year, especially in promoting the cooperation among families, school and the community.
- ◆ To actively educate parents and school staff by making reference to credible education materials on nutrition (e.g. materials provided by the Department of Health or relevant academic or professional organisations) so as to foster their understanding and concern for healthy eating in each school year.
- ◆ To integrate nutrition education into school curriculum and activities to teach children the importance of healthy eating and practical skills to good eating habits.
- ◆ To encourage parents and school staff to practise healthy eating in their daily life as well so that they could set themselves an example for their children/ students.
- ◆ To avoid giving food as rewards under all circumstances and delivering any messages contradicting to healthy dietary habits.



Points to note

After formulating the school healthy eating policy, kindergartens and child care centres should implement the policy through concrete measures (see example above) to make the school policy viable and impactful. Implementation of the policy can be divided into three stages – short, medium and long-term. Kindergartens and child care centres should have a plan to build up the capability of their stakeholders and enhance their efficiency gradually. They may designate an officer to coordinate the measures relating to the promotion of healthy eating and to serve as the contact person of "StartSmart@school.hk" Campaign organised by the Department of Health so that additional professional support can be obtained.

Say "NO" to the Marketing of Unhealthy Food in School

According to the Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children issued by the World Health Organization in 2010, Recommendation 5 says,

"Settings, where children gather, should be free from all forms of marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt. Such settings include, but are not limited to, nurseries, schools, school grounds and pre-school centres, playgrounds, family and child clinics and paediatric services and during any sporting and cultural activities that are held on these premises."

Schools, childcare and other educational establishments are privileged institutions acting in *loco parentis*, and nothing that occurs in them should prejudice to a child's well-being. The nutritional well-being of children within schools should be paramount and the foundation stone for children's well-being at this formative age. Therefore, schools are recommended to prohibit all forms of promotional or sponsorship activities related to unhealthy food by formulating and implementing school healthy eating policy.

Say "NO" to Marketing of Formula Milk Products in pre-primary institutions

Healthy diet of young children not only impacts their current health, but also lays the foundation for their future health as adults. Young children are vulnerable to influences of direct or indirect advertising and commercial promotional activities. In addition to supporting children under their care to establish healthy dietary habits, pre-primary institutions can also protect them from undue commercial influences.

The "Hong Kong Code of Marketing of Formula Milk and Related Products, and Food Products for Infants & Young Children" ("HK Code") is issued by the Food and Health Bureau and the Department of Health on 13 June 2017. The HK Code is voluntary in nature and it aims to protect breastfeeding and contribute to the provision of safe and adequate nutrition for infants and young children aged 36 months or below, based on adequate and unbiased information and through appropriate marketing. The HK Code provides guidance to relevant sectors including traders, healthcare workers and healthcare facilities, as well as childcare workers and childcare facilities that are involved in infants and young children nutrition.

The HK Code applies to the designated products for infants and young children **under 36 months of age** including formula milk, feeding bottles and teats, and pre-packaged food for infants and young children. The HK Code discourages manufacturers and distributors (M&Ds) from making use of health and child care facilities, and their workers as channels of formula milk promotion, such as offering free supplies of designated products to health and child care facilities, donating equipment, gifts or service which may promote the use of a designated product within health and child care facility, or promoting or distributing designated products to any person via health and child care facilities, and their workers. Kindergartens are highly encouraged to make use of health education materials provided by credible sources, such as the Department of Health or other professional organisations. Please visit <http://hkcode.gov.hk/en/index.html> for the full version of the HK Code.

II. Nutrition Education

1. Topics on healthy eating

Quality pre-primary education should be comprehensive and balanced. Apart from learning knowledge and concepts, children should also be able to master basic skills and build positive values and attitude. Through nutrition education, children will be able to understand developmental needs of their body and learn personal skills to take care of themselves, thereby building a positive attitude and acquiring good habits which will be beneficial to them for a lifetime.

The Kindergarten Education Curriculum Guide (2017) states that Physical Development is one of the five developmental objectives. This goal will be achieved through the "Physical Fitness and Health" learning area, and "healthy eating" is a topic commonly used. To help children cultivate good dietary habits at their early age, kindergartens and child care centres may refer to the following information on "nutrition", and design diversified learning activities and games so that children will be able to understand basic concepts of healthy eating.

A. Regular mealtime

Main message	Tips for eating
<ul style="list-style-type: none"> i. Have main meals at regular times ii. Breakfast, lunch and dinner are main meals iii. Breakfast is very important iv. Snacks may be required between two main meals 	<ul style="list-style-type: none"> • Breakfast, lunch and dinner are all required every day • Snacks are not absolutely necessary. If children feel hungry between two main meals, they may have some healthy snacks (e.g. fruit and vegetables, bread, low-fat milk or low-fat cheese) • Categorise food items correctly and clearly. For example, do not categorise ice-cream under dairy products so that children would not be misled to think that eating ice-cream is similar to drinking milk • After an 8-hour sleeping period, energy replenishment is required for the brain to support learning and activities throughout the day • Snacks can be consumed to replenish energy between two main meals. Fruit is the best choice • Do not skip main meals because of having taken snack at an earlier time or playing

B. Balanced diet

Main message	Tips for eating
<ul style="list-style-type: none"> i. A balanced diet is crucial to health ii. Eat different kinds of food iii. Be willing to try new food items 	<ul style="list-style-type: none"> • Food groups in the Healthy Eating Food Pyramid (i.e. grains, vegetables, fruits, dairy products, meat, fish, egg & alternatives, fat/ oil, salt and sugar) • Examples of food items in all food groups (Table 2, Table 4) • The meaning of the shape (triangle) of the Healthy Eating Food Pyramid and the relative proportion of different food groups to be taken • Trying all kinds of healthy food without picky eating is one of the good dietary habits

C. Fruit

Main message	Tips for eating
<ul style="list-style-type: none"> i. Eat fruit every day ii. Fruit is good for health iii. It is joyful to enjoy tasty fruit iv. Try different types of fruit 	<ul style="list-style-type: none"> • Examples of fruit of different types, colours and shapes • Fruit is nutritious, succulent and delicious with a sweet taste. It is good choice to quench thirst • Fruit helps defecation, prevents diseases and minimises the need for medication • Colourful fruit evokes the feeling of happiness and warmth • It is convenient to enjoy fruit since no cooking is needed • Fruit is the best choice for snack • Try different types of fruit



D. Vegetables

Main message	Tips for eating
<ul style="list-style-type: none"> i. Eat vegetables in each main meal ii. Vegetables are beneficial to health iii. Try different types of vegetables 	<ul style="list-style-type: none"> • Examples of vegetables of different types, colours and shapes • There are many types of vegetables, among which you can certainly find some you like • Vegetables help defecation, prevent diseases and minimise the need for medication • Try different types of vegetables



E. Water

Main message	Tips for eating
<ul style="list-style-type: none"> i. Our body needs water ii. Water is the best choice of drink iii. Drink sufficient amount of water every day 	<ul style="list-style-type: none"> • Water contains no sugar, fat or energy and will not lead to obesity • Water quenches thirst but will not cause tooth decay • Water is the most convenient choice • As compared to sweet drinks, water is the best choice • Drink an average of 4 - 5 glasses of fluid every day. And water is the best choice (1 glass = 240 ml)



2. Basic principles of selecting teaching materials on healthy eating

Children learn through life experience, sensory experience and interesting activities. To cultivate their healthy eating habits, kindergartens and child care centres may start with the food they come across in everyday life. Learning activities or teaching materials should be directed towards their developmental needs. Teachers should follow the principles of "learner-centred", "comprehensive and well-balanced" and "play-based strategy" as they are designing diversified learning activities for children. Examples include storytelling, discussion on current affairs or news, snacks tasting or singing of children's song related to healthy eating (e.g. An apple a day keeps the doctor away).



Related links

For curriculum planning as well as designing principles and strategies on learning and teaching, please refer the *Kindergarten Education Curriculum Guide (2017)* which can be downloaded from the website of the Education Bureau:

<http://www.edb.gov.hk>

Kindergartens and child care centres should take note of the followings when choosing or designing teaching materials on healthy eating and nutrition.

- ◆ Have you made reference to this publication?
- ◆ Does the content of the teaching materials meet the intellectual, physical, linguistic and social development of children of the age group concerned?

Example: Noting that 3-year-old children like to sing simple songs, you may choose some fruit songs for children with the addition of interesting movements to arouse their interest in fruit.

- ◆ Is the nutrition message repeated in different games and learning activities?

Example: Teachers may use different types of fruit to disseminate the message of "colourful fruit makes people happy". Make interesting patterns with fruit of different colours, e.g. make a rainbow. Also, ask children to prepare fruit salad so that they can enjoy the healthy treat together.

- ◆ Is there any discussion with other teaching staff who have experience in teaching nutrition topics to make the teaching materials or form of activities better cater for children's needs?
- ◆ Can multiple nutrition messages be covered in the teaching of a particular topic?
- ◆ Would the children be misled by the content of the teaching materials which in turn hinder the cultivation of good dietary habits?

Example: Children come across a lot of information on food in daily life (from books, advertisements, etc.). Teachers have to master the correct concepts on healthy eating and choose the appropriate teaching materials in guiding children to learn and build the concepts of healthy eating step by step.

Approaches that may mislead children

Recommendations

✗ Unhealthy food is specified or shown (e.g. sweets, soft drinks) in the content of teaching materials without explanation of its negative impact on health.

✓ If food high in salt, fat and sugar is specified or shown in the content of teaching materials, teachers have to explain the potential health problems associated with the food and ask children how they feel about the food so that they will have a proper understanding.

Example: Drinking a glass of soft drink means taking about 8 sugar cubes. It may lead to health problems such as tooth decay and obesity.

✗ Describing food high in salt, fat and sugar as something children like and desire will create an emotional link which will hinder children from cultivating healthy

✓ Refrain from using words like 'happy' and 'looking forward' to avoid the indirect establishment of an emotional link to these types of food and hindering the cultivation of healthy dietary habits among children.



Example: "When John returned home, he didn't find his favourite fried chicken and felt very disappointed." or "Delicious food around the world including American fried potato chip and hamburger, Chinese dim sum, Italian pizza..."

Example: "National foods around the world: American fried potato chip and hamburger, Chinese dim sum, Italian pizza..."

✗ Food items high in salt, fat and sugar are used as examples for special festive or seasonal items.

✓ Encourage children to eat healthy food on festive occasions or during different seasons. Example: sandwiches and fruit salad for birthday party or picnic; hot milk or congee for winter to keep warm

Example: Using cakes, sweets and potato crisps as party food or picnic food; Chinese preserved meat/sausages as hearty food in winter; and sweets as gifts for Chinese New Year; chocolate eggs for Easter etc.

Design various learning activities and games, including storytelling, discussion on current affairs and snack tasting, in which children can directly learn from life and sensory experiences.

Introduce festive activities or features, e.g. giving fruit as gifts and writing New Year scrolls during Chinese New Year; watching dragon boat race on Tuen Ng Festival, to avoid impressing children that eating unhealthy food is the best way to celebrate certain festivals or to do in certain seasons. If institutions consider there is a need to introduce and arrange for a tasting of festive foods that are fatty, salty or sugary (e.g. festive cake, mooncake), remember to explain the nutritional value of these food items before serving. Only small amount to be served in order not to affect the appetite for regular meals

✗ Food items high in salt, fat and sugar are used as examples to illustrate certain concepts and topics.

✓ Use healthier food or other non-food items as teaching examples or craft materials.

Example: Learn counting, weights and heights through pictures of soft drink cans or sweets; provide soft drink cans or wrapping paper of sweets as craft materials.

Example: Learn to count with pictures of fruit, animals or other objects; use toilet roll tubes, tissue boxes or wooden chopsticks as craft materials.



Points to note

Teachers may enhance children's understanding of healthy eating through the following activities:

- Field visits (e.g. farms, fruit and vegetable markets, water treatment works)
- Watching government TV announcements of public interests (for those on healthy eating, please visit <http://www.isd.gov.hk>)
- Stories/books/children's songs
- Newspaper clippings
- Observations in daily life
- Sharing and discussion (discussions among children or invite professionals to do sharing with them)
- Parent-child activities (healthy snack cooking competition, food tasting)



Related links

Local websites related to nutrition:

- Centre for Health Protection: <http://chp.gov.hk/>
- Centre for Food Safety, Food and Environmental Hygiene Department: <http://www.cfs.gov.hk>
- Hong Kong East Cluster Nutrition Information Web, Hospital Authority: <http://www.ha.org.hk/dic>
- Hong Kong Nutrition Association: <http://www.hkna.org.hk>
- Hong Kong Dietitians Association: <http://www.hkda.com.hk>
- Chinese Nutrition Society: <http://www.cnsoc.org>

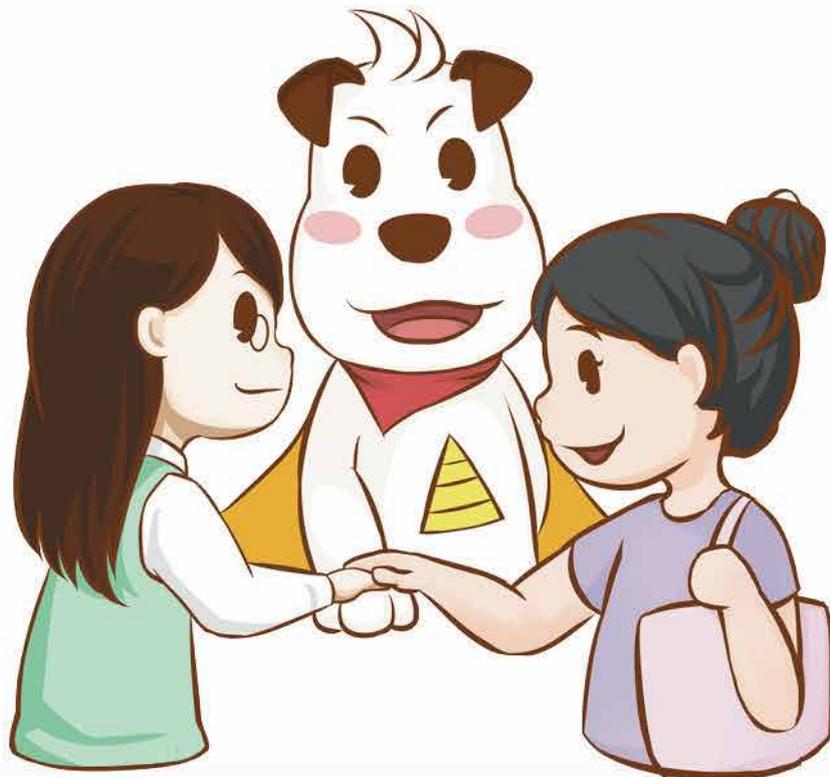
Overseas websites related to nutrition (English only):

- World Health Organization: <http://www.who.int/dietphysicalactivity/en/>
- United States Department of Agriculture: <http://www.fns.usda.gov>
- American Dietetic Association: <http://www.eatright.org>
- British Nutrition Foundation: <http://www.nutrition.org.uk>
- The British Dietetic Association: <http://www.bda.uk.com>
- Dietitians of Canada: <http://www.dietitians.ca>
- Dietitians Association of Australia: <http://www.daa.asn.au>

III. Home-school Cooperation

To create a consistent environment which is beneficial for children's health both in school and at home and to help them establish healthy dietary habits, parents and teachers should:

- ◆ Work together and consult nutrition experts, where appropriate, when developing, formulating and implementing healthy eating policies and measures.
- ◆ Act as role models for children by adhering to the principles of healthy eating.
 - ◇ Children always learn from adults around them. Teachers and parents must act as role models by living healthily: eating a variety of food items, eating more fruit and vegetables and drinking more water.
- ◆ Maintain effective communication through different means, e.g. the student handbook, school circulars, schools intranet and notice board; they should work together in providing an ideal environment at school and at home for cultivation of healthy dietary habits among children.
 - ◇ Kindergartens and child care centres may issue to parents a notice advising them to bring along healthy snacks to the birthday parties and not to give food as birthday presents.
 - ◇ Encourage parents to follow the school healthy eating policy by practising healthy eating at home so that children will adapt to the healthy eating environment more easily.
- ◆ Cooperate with each other in promoting nutrition education among children and parents at school and outside school to improve the skills and techniques in implementing the healthy eating policy.
 - ◇ Kindergartens and child care centres may encourage parents to provide feedback on school meal arrangement. Disseminate the message on healthy eating by encouraging parents to assist in monitoring the nutritional quality of food provided at school.



IV. Questions

1. The three major steps in formulating a school healthy eating policy are:
 - A. Deliberation on and establishment of the objective → Communication → Review and revision
 - B. Communication → Deliberation on and establishment of the objective → Review and revision
 - C. Communication → Review and revision → Deliberation on and establishment of the objective
 - D. There are no specific steps. Schools can make flexible arrangements in accordance with their circumstances.

2. Which of the following can be eliminated through formulation of a school healthy eating policy and implementation of specific measures by kindergartens and child care centres?
 - A. The serving of unwholesome food and food safety issues
 - B. Promotional or sponsorship activities related to unhealthy food
 - C. The habit of not having breakfast and snacks
 - D. The behaviour of not eating fruit or vegetables

3. In what circumstance can teachers use food as a reward?
 - A. During snack times
 - B. In a birthday party
 - C. When a child behaves well
 - D. Food should not be used as a reward in any circumstances

4. By integrating nutrition education into school curriculum and activities for children, kindergartens and child care centres are able to:
 - A. teach children the importance of healthy eating.
 - B. enhance children's knowledge of food selection.
 - C. help children practice the skills of healthy eating.
 - D. All of the above

Answers

1. A (please refer to P. 25)
2. B (please refer to P. 28)
3. D (please refer to P. 27)
4. D (please refer to P. 27)



Part 3

Common Eating Problems of Children

- I. How to Handle the Problem of Picky Eating
- II. Common Misconceptions on Children's Diets

I. How to Handle the Problem of Picky Eating

Picky eating or refusing to eat certain foods is a common problem among children. Parents and teachers often worry that children do not have enough nutrition, thus affecting their physical development. We have to understand that there are many reasons why children do not eat certain food: personal preference, frequency of eating on the same day, taste, cooking method, texture, colour, and dining environment. Parents and teachers **should not strictly discipline the children or force them to eat, which may worsen the situation.**

Teachers and parents may refer to the following recommendations in dealing with children with picky eating behaviour:

1. Understanding the extent of the problem

Parents and teachers have to understand that children will like or dislike certain food as they are building up their dietary habits. These likes and dislikes may change over time as children are learning to become independent individuals with their own characters. Parents and teachers have to accept that picky eating is part of the growing process. It would be acceptable for children not to eat certain food occasionally or for a short period of time if they are not refusing to eat all food items in a certain food group (e.g. refuse to eat any food items in the "fruits" or "vegetables" group) or their growth or body function is not affected. Kindergartens and child care centres should continue to provide different food items and encourage children to try them.

If kindergarten and child care centres discovers that a child refuses to eat a certain food group or his/her dietary habits affects his/her growth, they should inform the parents as soon as possible and suggest parents consult a dietitian, family doctor or a paediatrician.

2. Other ways to handle the problem of picky eating in school

- ◆ Change the cooking method
- ◆ Keep on providing the rejected food items in a small amount so that children will have more opportunities to get familiar with the food items. Praise them as a sign of encouragement if they are willing to try
- ◆ Teachers should act as role models and eat together with children
- ◆ Create a comfortable dining environment with harmonious atmosphere
- ◆ Organise teaching activities on healthy eating to enhance children's understanding on healthy food so that they will be more willing to accept them. An example would be a session on cooking healthy food



Points to note

The following methods may not help solve but worsen the problem of picky eating:

- Use food as a form of reward or punishment
- Stop providing the food that children dislike
- Force children to eat certain food items
- Corporal punishment and scolding

II. Common Misconceptions on Children's Diet

1. Is picky eating among children regarded as a form of disobedience?

There are many reasons why a child develops picky eating. These include unpleasant eating experience in the past, mimicking caregivers' eating behaviour, misconception about food and nutrition, dental problems, etc. Picky eating should not be regarded as a form of disobedience. Teachers and parents should communicate with each other to better understand the reasons behind and to come up with effective management.

2. Is giving food reward to children an effective way to encourage obedience?

Most food items commonly used as a reward, such as soft drinks, candies, chocolates and chips, are high in fat or sugar. Using these food as a reward discourages healthy eating and prevents children from establishing good dietary habits that ultimately affect their health. Using foods as a reward may:

- encourage children to eat high fat/ sugar foods and hinder them from building up a good eating habit. It will lead to obesity and other chronic diseases;
- encourage children to eat even without feeling hungry, contrary to the healthy habit of "eating when hungry, and stopping when full"; and
- lead children to associate the joyful moment with certain food items, and may develop a habit of eating certain foods for comfort or happiness.

There are more effective ways to reward a child's good behaviour:

- Pay a compliment in front of the class by saying "Well done!" or "John has done a great job, let's learn from him!";
- Reward with stickers, stamps, stationery, etc.;
- Give the child priority to take part in games or other activities; and
- Give the child additional time for exercise or active play.



3. Can playing during mealtime improve a child's appetite?

This is certainly not a good way of developing good eating habits. It is distracting to eat and play games at the same time, and this may lead to overeating and consequently an increased risk of overweight and obesity. A comfortable and quiet environment without distractions allows children to concentrate on eating. Once they feel full, allow them to stop eating and do not force them to finish their meal.

4. There are some brands of milk formulae specialised for "picky eaters" in the market. Can these products resolve the problem of "picky eating" amongst children?

While there is no single food to solve the problem of "picky eating", behavioural modification is the only solution to the root problem. Over-reliance on milk formulae will compromise children's opportunity to try other foods and impede the development of good eating habits. Moreover, it may lead to excessive intake of energy and increase the risk of developing obesity. Consult a dietitian, family doctor or paediatrician promptly if the problem of picky eating behaviour is found to affect the child's growth and development.

5. Is organic food more nutritious?

"Organic food" refers to food that has no chemical, pesticides or genetic modification applied during the production process. Regarding nutrition, both "organic food" and its "non-organic" counterpart are similar. Organic foods, however, are relatively more expensive and have fewer choices.

6. Are cakes or biscuits healthy snack choices?

Most cakes and biscuits are pre-packaged foods which are higher in trans fat, saturated fat, salt and sugar than fresh foods. Hence, they should not be considered as healthy snacks and are not recommended for daily consumption. Long-term consumption of snacks high in salt, fat or sugar can lead to an increased risk of developing obesity and other chronic diseases. Wholegrain bread, pita bread, bread roll, raisin bread and sweet corn are some good grain-based snack choices.

For biscuit options, avoid biscuits with fillings (e.g. cream biscuits or wafers) and those that are well-known to be high in saturated fat (e.g. cookies). Read the nutrition label on the package to compare the nutritional content of similar products and choose those containing less salt, fat and sugar. If a biscuit fulfils the following nutrition criteria, it is a healthier option (per 100 g):

- Total fat ≤ 20 g
- Sugar ≤ 15 g
- Sodium ≤ 600 mg

For cakes, plain sponge cakes are better choices but still high in sugar. If you decide to prepare a home-made cake, you can reduce the amount of butter and sugar used or replace some ingredients with healthier options such as replacing butter with canola oil and sugar with raisins or other dried fruit.

Nutrition Information	
Whole-wheat low salt cracker	Per 100g
Serving size: 20g	(1 pack)
Energy	443 kcal / kJ
Protein	8.8g
Total fat	17.2g
- Saturated fat	3.4g
- Trans fat	0.0g
Carbohydrates	68.6g
- Sugars	0.4g
Sodium	247mg

7. Is "long-boiled" pork bone soup high in calcium that helps children's growth?

Many people believe that "long-boiled" pork bone soup is high in calcium which helps bone development in children. In fact, calcium in the bone cannot be released during the cooking process. Instead, a high amount of fat (especially saturated fat) is released into the soup, and excessive intake of it can adversely affect our health in the long run. Therefore, it is advised not too often consume the soups. Try using vegetables, beans and small amounts of fish or lean meat to make a clear broth.

8. Should sports drinks be given to children after sweating a lot from exercising?

Most sports drinks available in the market contain mainly water and sugar, and some even contain caffeine. If children have sports drink instead of water on a daily basis, they may have over indulgence in sugar and will not be able to develop good dietary habits. Caffeine may affect the sleeping quality of children. Therefore, children should have beverages regularly during meals and between meals to replenish water loss during the day or in activities, and water is the best and most convenient choice.



9. If a child is becoming obese, does he/ she need to lose weight?

Remember to stay calm and do not panic when you think a child has the tendency of becoming obese. It is strongly discouraged to put the child on diet (including fad diets) in an attempt to lose weight. The most effective way to deal with the overweight or obesity problem is to do exercise and modify the unhealthy eating habit, through which the child's weight will gradually return to normal level.

Please refer for recommendations to Part 1 "Dietary Recommendations for Preschool Children" of this guideline on appropriate portions and balanced nutrition. Also remember to allow children to have enough time for physical activities every day so that they will be able to build up the healthy lifestyle. Please note that dieting or using inappropriate ways to lose weight during the growing period of children may adversely affect their physical and psychological development. Consult a dietitian, family doctor or paediatrician if there is any query.

10. Is it normal for a child to feel hungry all the time?

In general, children have high activity level every day. Most of them have small stomach capacity and may not be able to eat adequately at main meals for compensating their daily energy expenditure and fluid loss. As a result, children tend to feel hungry often. When children feel hungry between main meals, it is recommended to provide them with "3 low 1 high" healthy snacks as listed in Table 4 "Recommendations on Food Ingredients for Healthy Snacks". Since frequent eating can increase the risk of tooth decay and spoil the appetite for main meals, it is advised to limit snack consumption to once between main meals and keep at least 1.5 - 2 hours between the main meals and snack.

11. How should lactose intolerance be managed?

Lactose intolerance is a condition where the body lacks an enzyme called lactase, making it difficult to break down lactose in milk accompanied by symptoms of discomfort, such as abdominal pain and diarrhoea, ranging from mild to severe, depending on the degree of lactose intolerance. Management of lactose intolerance is different from that of food allergy. When preparing meals for those who are lactose intolerant, avoid foods containing a large amount of lactose (such as milk and ice-cream). Or provide such foods in a little amount for several times throughout the day. The diet should be supplemented with foods that are high in calcium, such as firm tofu, low-lactose milk or calcium-fortified low-sugar soymilk, etc. Consult a dietitian, family doctor or paediatrician if there is any query.

12. Is it alright to offer foods high in salt, fat and sugar occasionally at birthday parties?

Foods high in salt, fat and sugar are placed at the top of the Healthy Eating Food Pyramid and should be consumed in the least amount. Ice-cream, candies and French fries are examples of these and should be minimised in consumption. Moreover, such practice can result in a false sense of emotional connection with these foods and hinder the development of good dietary practice. Thus, high-salt, high-fat and high-sugar foods are not suggested to be served on birthdays or other celebrations.

For instance, most kindergartens and child care centres organise birthday parties for students monthly or bimonthly, in which cream cakes, sausages, fried fish fingers and other high-salt, high-fat or high-sugar foods are served. As a result, children can relate these foods with happiness - "cream cakes and sausages make me happy!". Long-term reinforcement of this incorrect belief will lead to unhealthy dietary habits and wrong eating attitudes, with a preference for high salt, high fat and high sugar foods to "feel happier". With the above reasons, when allowing children to explore and be exposed to different foods, it is advised not to introduce these high-salt, high-fat and high-sugar foods on special occasions/celebrations or try to offer a small amount with nutritional guidance.

13. Is chicken powder healthier than salt? Should salt be replaced with chicken powder when cooking for children?

When comparing the same amount of chicken powder to salt, chicken powder does contain less sodium. In practice, however, we usually use more chicken powder than salt each time for cooking, and in the end, a significant amount of sodium is added. High sodium intake in the long term will increase the risk of developing high blood pressure and cardiovascular diseases. As recommended by the *Chinese Dietary Reference Intakes (2013)*, a daily proposed sodium intake for children aged 4 to 6 should be less than 1200 mg (i.e. about $\frac{1}{2}$ teaspoon of salt or 1 tablespoon of soy sauce). For children aged 2 to 3, try to avoid adding sodium-containing seasonings to their foods.

There are many alternative ways to boost flavour in dishes, such as adding fresh herbs and food ingredients (e.g. spring onion, ginger, garlic, tomato, lemon, orange and mushroom). Please refer to the Section V in Part 1 on "Seasonings".

For the sake of our health, it is important to train our taste perceptions for better sensitivity towards salt by choosing light-flavoured foods and avoiding salty foods.

Appendix 1 Unit Conversion Table

1. Weight

1 oz	≈ 30 g	
1 lb	= 454 g	
1 kg	= 2.2 lb	≈ 35 oz
1 catty	= 16 tael	≈ 640 g
1 tael	≈ 40 g	



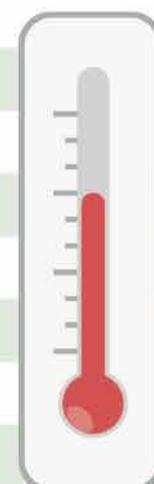
2. Volume

1 teaspoon	= 5 ml	
1 tablespoon	= 15 ml	
1 glass	= 240 ml	
1 bowl	= 250 - 300 ml	
1 oz	≈ 30 ml	= $\frac{1}{8}$ cup
1 L	= 1000 ml	
1 pint	≈ 570 ml	≈ 2.5 cup
1 gallon	≈ 3.8 L	≈ 3800 ml



3. Temperature

Fahrenheit (°F)	Celsius (°C)
275	135
300	150
325	160
350	175
375	190
400	205
425	220
450	230



Appendix 2 A Sample of One-day Menu

Kindergartens and child care centres may refer to Part 1 and this Appendix for recommendations when designing the school menu. Considering that each child has different needs for energy and quantity of food intake and that there are different meal arrangements in individual institutions, the types and quantity of food recommended for main meals and snacks may supplement each other and adjustments can be made (refer to Examples 2 and 3 of this Appendix).

Example 1 (N to K1 children)

This example illustrates the following:

- Plan school meals based on the recommended servings for main meals and snacks
- Meet most of the nutritional needs of children in a day with two main meals and two snacks

Meals and time	Menu examples	Ingredients	Food conversion (no. of serving)				
			Grains	Vegetables	Meat, fish, egg & alternatives	Fruits	Dairy products
Breakfast 08:00	Macaroni with baby cabbage and shredded pork	Macaroni: $\frac{3}{5}$ bowl* Baby cabbage: $\frac{1}{4}$ bowl* Lean pork: 20 g	3	$\frac{1}{2}$	$\frac{1}{2}$		
Morning snack 10:00	Apple Water	Apple: $\frac{1}{2}$ (medium size)				$\frac{1}{2}$	
Lunch 12:30	Red rice with Chinese flowering cabbage, baby corn, straw mushroom and stir-fried beef Water	Red rice: about $\frac{1}{2}$ bowl* Chinese flowering cabbage, baby corn and straw mushroom: $\frac{1}{4}$ bowl* Beef: 20 g	3	$\frac{1}{2}$	$\frac{1}{2}$		
Afternoon snack 15:30	Low-fat milk Steamed bun	Low-fat milk: 1 glass** Steamed bun: 1 piece	1				1
Total number of servings provided in the institution:			7	1	1	$\frac{1}{2}$	1
Recommended daily food intake of children: N to K1 class (see Table 1 for details):			8 - 12	At least 1 $\frac{1}{2}$	1 $\frac{1}{2}$ - 2	At least 1	Approx. 2

*1 bowl = 250 - 300ml **1 glass = 240ml

Interpretation of the menu:

The above example shows that this whole-day kindergartens and child care centres follows the recommendations on main meals (breakfast and lunch) by providing 3 servings of grains, $\frac{1}{2}$ serving of vegetables and $\frac{1}{2}$ serving of meat, fish, egg & alternatives. Fruits and dairy products are provided as snacks.

Recommended servings for main meals (for each main meal)

(Main meals: breakfast, lunch and dinner)

	N to K1 Children	K2 to K3 Children
Grains	Approx. 3 servings	Approx. 4 servings
Vegetables	Approx. $\frac{1}{2}$ serving	Approx. 1 serving
Meat, fish, egg & alternatives	Approx. $\frac{1}{2}$ serving	Approx. 1 serving
Oil (for cooking)	Not more than 2 servings	

Meal time
There should be 4 to 6 hours between two main meals and at least 1.5 to 2 hours between the snack and main meals.

Recommended servings for snacks

Recommended servings for children aged 2 - 6	
Whole-day school (Two snacks a day)	Morning snack: $\frac{1}{2}$ serving of fruits Afternoon snack: 1 serving of dairy products and/ or 1 serving of grains
Half-day school (One snack a day)	1 serving of dairy products or 1 - 2 serving(s) of grains or $\frac{1}{2}$ serving of fruits

Example 2 (N to K1 children)

This example illustrates the following:

- Different types of food and their servings provided in main meals and snacks supplement each other with adjustments made
- Meet most of the nutritional needs of children in a day with two main meals and two snacks

Meals and time	Menu examples	Ingredients	Food conversion (no. of serving)				
			Grains	Vegetables	Meat, fish, egg & alternatives	Fruits	Dairy products
Breakfast 08:00	Toast with low-fat cheese	Wholemeal bread: 1 slice Low-fat cheese: 1 slice	2				$\frac{1}{2}$
	Calcium-fortified, low-sugar soymilk	Calcium-fortified low-sugar soymilk: $\frac{1}{2}$ glass**					$\frac{1}{2}$
Morning snack 10:00	Pear Water	Pear: $\frac{1}{2}$ (medium size)				$\frac{1}{2}$	
Lunch 12:30	Red rice with baby cabbage and stir-fried pork Water	Red rice: about $\frac{1}{2}$ bowl* Baby cabbage: $\frac{1}{2}$ bowl* Pork: 4 - 5 slices	3	1	1		
Afternoon snack 15:30	Low-fat milk	Low-fat milk: 1 glass**					1
	Raisin bread roll	Raisin bread roll: $\frac{3}{4}$ pc	2				
Total number of servings provided in the institution:			7	1	1	$\frac{1}{2}$	2
Recommended daily food intake of children: N to K1 class (see Table 1 for details):			8 - 12	At least $1\frac{1}{2}$	$1\frac{1}{2}$ - 2	At least 1	Approx. 2

*1 bowl = 250 - 300ml **1 glass = 240ml

Interpretation of the menu:

The above example shows that the recommended $\frac{1}{2}$ serving of vegetables and $\frac{1}{2}$ serving of meat (and alternatives) are not included in the breakfast, so these servings are provided in the lunch. For the 1 serving of grains missed in the breakfast, it can be supplemented in the afternoon tea.

Recommended servings for main meals (for each main meal) (Main meals: breakfast, lunch and dinner)

	N to K1 Children	K2 to K3 Children
Grains	Approx. 3 servings	Approx. 4 servings
Vegetables	Approx. $\frac{1}{2}$ serving	Approx. 1 serving
Meat, fish, egg & alternatives	Approx. $\frac{1}{2}$ serving	Approx. 1 serving
Oil (for cooking)	Not more than 2 servings	

Meal time
There should be 4 to 6 hours between main meals and at least 1.5 to 2 hours between the snack and main meals.

Recommended servings for snacks

Recommended servings for children aged 2 - 6	
Whole-day school (Two snacks a day)	Morning snack: $\frac{1}{2}$ serving of fruits Afternoon snack: 1 serving of dairy products and/ or 1 serving of grains
Half-day school (One snack a day)	1 serving of dairy products or 1 - 2 serving(s) of grains or $\frac{1}{2}$ serving of fruits

Example 3 (K2 to K3 children)

This example illustrates the following:

- Different types of food and their servings provided in main meals and snacks supplement each other with adjustments made
- Meet the nutritional needs of children in a day with three main meals and two snacks

Meals and time	Menu examples	Ingredients	Food conversion (no. of serving)					
			Grains	Vegetables	Meat, fish, egg & alternatives	Fruits	Dairy products	
Breakfast 08:00	Cheese and tomato sandwich	Wholemeal bread: 1 slice Potato: 1 pc (size of an egg) Tomato: $\frac{1}{4}$ pc	2 1	$\frac{1}{2}$				
	Mashed potato with milk	Low-fat cheese: 1 slice Low-fat -milk: $\frac{1}{2}$ glass**						$\frac{1}{2}$ $\frac{1}{2}$
Morning snack 10:00	Grape Water	Grapes: 8 - 10 pcs				1		
Lunch 12:30	Red rice with soy-bean sprouts and dace meat Water	Red rice: $\frac{4}{5}$ bowl* Dace meat: 60 g Soybean sprouts: $\frac{1}{2}$ bowl*	4			$1\frac{1}{2}$		
Afternoon snack 15:30	Calcium-fortified low-sugar soymilk Bread roll	Calcium-fortified low-sugar soymilk: 1 glass** Bread roll: 1 pc					1	
Dinner 18:30	Spaghetti with fresh tomato, broccoli and chicken fillet Orange	Spaghetti: $1\frac{1}{3}$ bowl* Tomato: broccoli, $\frac{3}{4}$ bowl* Chicken fillet: 60 g Orange: 1 (medium size)	4	$1\frac{1}{2}$		$1\frac{1}{2}$	1	
	Total number of servings provided in the institution:		12					3
Recommended daily food intake of children in K2 to K3 class (see Table 1 for details):			12 - 15	At least 2		2 - 3	At least 2	Approx. 2

*1 bowl = 250 - 300ml **1 glass = 240ml

Interpretation of the menu:

The above example shows that the recommended 4 servings of grains, 1 serving of vegetables and 1 serving of meat (and alternatives) are not included in the breakfast, so these servings are respectively supplemented during lunch, afternoon snack and dinner.

Recommended servings for main meals (for each main meal)

(Main meals: breakfast, lunch and dinner)

	N to K1 Children	K2 to K3 Children
Grains	Approx. 3 servings	Approx. 4 servings
Vegetables	Approx. $\frac{1}{2}$ serving	Approx. 1 serving
Meat, fish, egg & alternatives	Approx. $\frac{1}{2}$ serving	Approx. 1 serving
Oil (for cooking)	Not more than 2 servings	

Meal time
There should be 4 to 6 hours between main meals and at least 1.5 to 2 hours between the snack and main meals and main meals.

Recommended servings for snacks

Recommended servings for children aged 2 - 6	
Whole-day school (Two snacks a day)	Morning snack: $\frac{1}{2}$ serving of fruits Afternoon snack: 1 serving of dairy products and/ or 1 serving of grains
Half-day school (One snack a day)	1 serving of dairy products or 1 - 2 serving(s) of grains or $\frac{1}{2}$ serving of fruits

Appendix 3 A Sample of Four-week Menu

Week 1	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast	Macaroni with Chinese cabbage and shredded pork	Oatmeal bun + calcium-fortified low-sugar soymilk	Shanghai noodle with hairy gourd and minced beef in soup	Rolled oats with raisin and low-fat milk	Egg and tomato sandwich
Morning snack	Apple	Banana	Orange	Papaya	Dragon fruit
Lunch	Steamed chicken with mushroom and black fungus + stir-fried pak choy	Steamed tofu with straw mushroom and minced meat + stir-fried Chinese flowering cabbage	Scramble egg with minced pork with tomato + stir-fried baby cabbage	Pan-fried pork chop with onion + stir-fried cabbage	Fusilli with beef in pumpkin sauce + boiled broccoli
Afternoon snack	Steamed bun + low-fat milk	Stir-fried rice vermicelli with carrot and button mushroom (reduced oil)	Boiled sweet potato + low-fat milk	Udon with sweet corn and beef in soup	Minced pork congee with carrot
Week 2	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast	Alphabet pasta with carrot and chicken in soup	Cheese sandwich	Spinach noodles with tomato and beef in soup	Sweet roll + low-fat milk	Minced pork congee with sweet corn
Morning snack	Grapes	Pear	Watermelon	Apple	Banana
Lunch	Fish sautéed with bean sprouts, shredded carrot and mushroom	Penne Bolognese (with tomato, carrot and button mushroom)	Stir-fried pork with eggplant + stir-fried Chinese flowering cabbage	Stir-fried pork with hairy gourd and shredded shiitake mushroom	Beef and cauliflower stir-fry
Afternoon snack	Oatmeal with milk	Red rice congee with shiitake mushroom and minced pork	Peanut butter toast + calcium-fortified low-sugar soymilk	Rice vermicelli with lettuce and chicken in soup	Bread roll with jam + low-fat milk
Week 3	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast	Conchiglie with cabbage and beef in soup	Raisin bread + calcium-fortified low-sugar soymilk	Rice macaroni with lettuce and beef in soup	Steamed bun + low-fat milk	Fish congee with lettuce and fish
Morning snack	Cantaloupe	Grapes	Orange	Dragon fruit	Kiwi fruit
Lunch	Steamed egg with minced pork + stir-fried baby pak choy	Spaghetti with shredded chicken in low-fat white sauce + boiled broccoli	Steamed tofu stuffed with sweet corn and minced pork + stir-fried spinach	Pork with sweet corn + stir-fried Chinese cabbage	Angel's hair with shredded chicken and button mushroom and tomato + stir-fried assorted vegetable
Afternoon snack	Mashed potato with sweet corn and milk	Pumpkin congee with minced pork	Tuna on toast + low-fat milk	Shanghai noodles with tomato and beef	Oatmeal bun + low-fat milk
Week 4	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast	Farfalle with mushroom and shredded chicken	Bread roll + calcium-fortified low-sugar soymilk	Egg noodles with Chinese cabbage and shredded pork in soup	Lettuce and tuna sandwich	Red rice congee with mushroom and minced beef
Morning snack	Banana	Watermelon	Pear	Apple	Pineapple
Lunch	Stir-fried lean pork with Chinese flowering cabbage, baby corn and straw mushroom	Pan-fried egg with carrot, onion and shredded pork + stir-fried Shanghai cabbage	Spaghetti with button mushroom and fish fillet and sweet corn + boiled broccoli	Steamed tofu with shiitake mushroom and shredded chicken + stir-fried cabbage	Steamed minced pork with oatmeal + stir-fried Chinese cabbage
Afternoon snack	Rolled oats in milk	Tomato and beef congee	Pancake with jam + low-fat milk	Pumpkin sago with milk (reduced sugar)	Calcium-fortified low-sugar soymilk + boiled sweet potato

Remarks:

Half-day schools may refer to the snack examples in this table to provide: 1 to 2 servings of grains, $\frac{1}{2}$ serving of fruit or 1 serving of dairy products.

Additional notes on ingredients:

Sandwiches: no butter or hydrogenated margarine; choose wholemeal or multi-grains bread

Jam: no added sugar

Lunch: grains (e.g. white rice or red rice) will be provided with Chinese dishes

Appendix 4 Menu Evaluation Form and Examples

Week 1	Monday	Tuesday	Wednesday	Thursday	Friday	
Breakfast Morning snack Lunch Afternoon snack						
Remarks:						
Evaluation item (Please check ✓ the boxes as appropriate.)						
				Yes	No	Not applicable
1.	There is no repetition in the combination of food ingredients for main meals and snacks in a week . Seasonal ingredients that are appealing to children have been chosen.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Water is provided every day as the main fluid for students.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	For whole-day kindergartens and child care centres : Fresh fruit and dairy products are provided in the meals every day.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	For half-day kindergartens and child care centres : Fresh fruit or dairy products are provided in the meals every day.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Grains, vegetables and meat (or its alternatives, e.g. fish, poultry, egg, bean curd and beans) are provided in lunch and dinner (if applicable) .			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Food items provided every day are arranged with reference made from Table 3 and Table 6. Types and quantity of food in the meals have been adjusted to supplement each other according to the recommendations to satisfy the daily nutritional requirements of children.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	All food ingredients do not contain caffeine or artificial sweeteners.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	No grains high in salt, oil and sugar (e.g. fried rice, fried noodles, E-fu noodles, puffed bread and pastry, pineapple bun, custard bun, French fries, sandwich biscuits, cookies and cakes, etc.) are used.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	No dried/ canned/ preserved fruit and vegetables with added salt, oil or sugar (e.g. raisins with added sugar, canned fruit in syrup, salted seaweed, pickled Chinese mustard and dry pickled Chinese mustard, etc.) are used.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	No full-fat dairy products or those high in fat or sugar (e.g. full-fat milk, full-fat cheese, full-fat milk powder, condensed milk and evaporated milk, etc.) are used.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	No monosodium glutamate (MSG), chicken powder or seasonings/ ready-made sauces high in salt (e.g. fermented bean sauce, fish sauce, teriyaki sauce, white sauce, tomato sauce and sauce made with canned soup, etc.) are used in cooking.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	No poultry with skin, fatty cut of meat, processed/ cured/ canned meat, fish, egg and beans (e.g. beef brisket, pork jowl, pork ribs, pork bone, chicken paws, chicken wings, ham, beef ball, sausage, imitation crab meat, barbecued pork, corned beef, ready-made dim sum, canned tuna in oil, canned baked beans, lime preserved egg and textured vegetable protein, etc.) are used.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	No oils and fats with high level of saturated fat or trans fat (e.g. butter, lard, coconut milk, vegetable oil with coconut oil/ palm oil, margarine with trans fat and cream, etc.) are used in cooking.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	No high-sugar food items and beverages (e.g. jelly, cordial, soft drink, yoghurt drink, probiotic drink, tetra pack chrysanthemum tea, chocolate milk and instant drinks (except milk powder), etc.) are provided.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	No high-fat cooking methods (e.g. deep-frying) are used in cooking and no deep-fried food items (e.g. deep-fried bean curd puff, deep-fried bean curd sheet, deep-fried fish ball, deep-fried fish curd and fried gluten, etc.) are used.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	The school has considered whether the meals in the menu are suitable for children with special dietary needs (e.g. dietary rules for certain cultural or religious groups, food allergy or special health conditions) and special arrangements have been made for these children.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If "yes" boxes have been checked ('✓') for all of the above items, the menu for this cycle is in line with the recommendations of this publication and the menu is considered healthy. Conversely, if any "no" box has been checked, the school should make reference to the said Guidelines and promptly discuss with the stakeholders (e.g. parents and the food service staff) on ways to improve the menu so that the principles of healthy eating can be followed.

This menu Evaluation Form can be downloaded at: <http://www.startsmart.gov.hk/en/others.aspx?MenuID=57>

Menu Evaluation Form (Examples)

Week 1	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast	Macaroni with Chinese cabbage and shredded pork	Oatmeal bun + calcium-fortified low-sugar soymilk	Shanghai noodle with hairy gourd and minced beef in soup	Rolled oats with raisin and low-fat milk	Cheese and tomato sandwich
Morning snack	Apple	Banana	Orange	Papaya	Dragon fruit
Lunch	Steamed chicken with shiitake mushroom and black fungus + stir-fried pak choy	Steamed tofu with straw mushroom and minced meat + stir-fried Chinese flowering cabbage	Scramble egg with minced pork and tomato + stir-fried baby cabbage	Pan-fried pork chop with onion + stir-fried cabbage	Fusilli with beef in pumpkin sauce + boiled broccoli
Afternoon snack	Steamed bun + low-fat milk	Stir-fried rice vermicelli with carrot and button mushroom (reduced oil)	Boiled sweet potato + low-fat milk	Udon with sweet corn and beef in soup	Minced pork congee with carrot

Remarks:

Evaluation item (Please check ✓ the boxes as appropriate.)	Yes	No	Not applicable
1. There is no repetition in the combination of food ingredients for main meals and snacks in a week . Seasonal ingredients that are appealing to children have been chosen.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Water is provided every day as the main fluid for students.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. For whole-day kindergartens and child care centres : Fresh fruit and dairy products are provided in the meals every day.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. For half-day kindergartens and child care centres : Fresh fruit or dairy products are provided in the meals every day.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Grains, vegetables and meat (or its alternatives, e.g. fish, poultry, egg, bean curd and beans) are provided in lunch and dinner (if applicable) .	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Food items provided every day are arranged with reference made from Table 3 and Table 6. Types and quantity of food in the meals have been adjusted to supplement each other according to the recommendations to satisfy the daily nutritional requirements of children.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. All food ingredients do not contain caffeine or artificial sweeteners.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. No grains high in salt, oil and sugar (e.g. fried rice, fried noodles, E-fu noodles, puffed bread and pastry, pineapple bun, custard bun, French fries, sandwich biscuits, cookies and cakes, etc.) are used.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. No dried/ canned/ preserved fruit and vegetables with added salt, oil or sugar (e.g. raisins with added sugar, canned fruit in syrup, salted seaweed, pickled Chinese mustard and dry pickled Chinese mustard, etc.) are used.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. No full-fat dairy products or those high in fat or sugar (e.g. full-fat milk, full-fat cheese, full-fat milk powder, condensed milk and evaporated milk, etc.) are used.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. No monosodium glutamate (MSG), chicken powder or seasonings/ ready-made sauces high in salt (e.g. fermented bean sauce, fish sauce, teriyaki sauce, white sauce, tomato sauce and sauce made with canned soup, etc.) are used in cooking.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. No poultry with skin, fatty cut of meat, processed/ cured/ canned meat, fish, egg and beans (e.g. beef brisket, pork jowl, pork ribs, pork bone, chicken paws, chicken wings, ham, beef ball, sausage, imitation crab meat, barbecued pork, corned beef, ready-made dim sum, canned tuna in oil, canned baked beans, lime preserved egg and textured vegetable protein, etc.) are used.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. No oils and fats with high level of saturated fat or trans fat (e.g. butter, lard, coconut milk, vegetable oil with coconut oil/ palm oil, margarine with trans fat and cream, etc.) are used in cooking.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. No high-sugar food items and beverages (e.g. jelly, cordial, soft drink, yoghurt drink, probiotic drink, tetra pack chrysanthemum tea, chocolate milk and instant drinks (except milk powder), etc.) are provided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. No high-fat cooking methods (e.g. deep-frying) are used in cooking and no deep-fried food items (e.g. deep-fried bean curd puff, deep-fried bean curd sheet, deep-fried fish ball, deep-fried fish curd and fried gluten, etc.) are used.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The school has considered whether the meals in the menu are suitable for children with special dietary needs (e.g. dietary rules for certain cultural or religious groups, food allergy or special health conditions) and special arrangements have been made for these children.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If "yes" boxes have been checked ('✓') for all of the above items, the menu for this cycle is in line with the recommendations of this publication and the menu is considered healthy. Conversely, if any "no" box has been checked, the school should make reference to the said Guidelines and promptly discuss with the stakeholders (e.g. parents and the food service staff) on ways to improve the menu so that the principles of healthy eating can be followed.

Appendix 5 Tools for Promoting Healthy Eating in Schools

In order to assist kindergartens and child care centres in fostering an environment conducive to healthy eating, the Department of Health has developed the tools below, which are now readily available at the thematic website of the "StartSmart@school.hk" Campaign (<http://startsmart.gov.hk>):

1. Recipe Sharing Platform

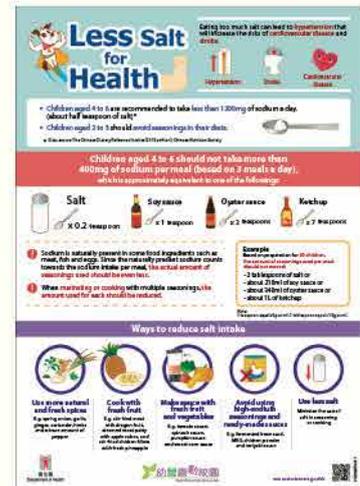
To facilitate the sharing of methods and tips on healthy cooking by kindergartens and child care centres, the Department of Health has introduced the Recipe Sharing Platform on the above thematic website. Schools are encouraged to submit recipes and share knowledge of healthy cooking in a joint effort to promote healthy dishes with less salt and sugar and establish a school environment conducive to healthy eating. For details, please visit <http://startsmart.gov.hk/en/photogallery.aspx?MenuID=81>

2. Seasonal Menus and Festive Menus

With a mix and match of different seasonal ingredients, the Department of Health has drawn up four sample menus with less salt and sugar-themed on spring, summer, autumn and winter to enhance the day-to-day practice of healthy eating in kindergartens and child care centres. To complement the food arrangement during festival seasons at schools, four additional sample menus and relevant recipes themed on festivals (including Chinese New Year, Easter, the Mid-Autumn Festival and Christmas) have been made available.

3. Health Education Resources

School staff may download additional teaching materials on healthy eating, including posters such as "Healthy Eating Food Pyramid for Children", "Food Exchange List" and "Less Salt for Health".



Appendix 6 Handling Food Allergies among Children

Food allergy is an important health issue for children. When those with food allergy come into contact with allergen proteins in food, their immune system will have an allergic reaction such as rashes and swelling on skin, redness and swelling of the mouth, vomiting or increased heart rate. In serious cases, children may suffer from difficulty in breathing, shock or even death. The following are some of the food items that may lead to allergy among children:

certain food additives
peanuts

egg
nuts

seafood
soybean

milk
wheat

Doctors can confirm, after diagnosis, whether a child suffers from food allergy through an allergy test. Please refer suspected cases of food allergy to a doctor for confirmation. Kindergartens and child care centres and parents should work together to create a safe learning environment for children with confirmed food allergy. Recommended roles and responsibilities of kindergartens and child care centres and parents as well as points to note in menu planning are as follows:

Recommended roles and responsibilities of kindergartens and child care centres

- ◆ Take the initiative to check with parents for any children with confirmed food allergy. Record on the food allergy card bearing the child's photograph the following information: the types of food leading to allergy, allergic reaction and emergency treatment method
- ◆ Inform core members of the school (including school nurses, teachers and catering staff) of the condition of each child with food allergy. Put in place a food allergy policy and a contingency plan, with reviews regularly made by both school and parents
- ◆ Store medicine at designated locations and appoint trained school personnel to provide medication or give injection for children having allergic reaction
- ◆ Involve parents to understand their own responsibilities and maintain good communication with them

Recommended roles and responsibilities of the parents

- ◆ Provide information on their children's food allergy, medical record and doctor's instructions to kindergartens and child care centres
- ◆ Provide the necessary medication for children with appropriate labels, instructions and expiry date
- ◆ Join force with kindergartens and child care centres to formulate a food allergy policy and emergency response protocol with regular review made
- ◆ Provide information of contact persons for emergency contact
- ◆ If possible, teach the child with confirmed food allergy self-managing skills:
 - ◇ Identify safe and unsafe food items
 - ◇ Note any allergic reactions
 - ◇ How and when to inform others of the allergic reactions
 - ◇ Let children wear a bracelet bearing the name of the food items causing allergy while in school to increase the awareness of the institution staff

Points to note in menu planning

- ◆ To ensure the provision of a wide variety of food ingredients and balanced nutrition, **kindergartens and child care centres are advised not to deliberately avoid the food ingredients that can easily induce food allergy** as they are planning the menu. **If necessary, provide a special diet for children with confirmed food allergy.**
- ◆ Check the information on the "food allergy card" of the child to ensure that no allergy-causing food is included in their meals prepared by the institution.
- ◆ Check whether there are any allergy-causing foods in the menu or in the ingredients list of the pre-packaged food items used. Make special meal arrangements for those with food allergy. For example, other ingredients instead of those containing the allergens may be used.
- ◆ Check whether there is any allergen associated with the children concerned in the ingredients list of the pre-packaged food items. Use other safe ingredients as appropriate.
- ◆ Use separate utensils for preparing and cooking food for children with confirmed food allergy. Avoid using those utensils with which food with allergens has been handled.
- ◆ On occasions like birthday party when all children share the same food, make sure that no allergy-causing food is included. If necessary, provide a special menu for those concerned. **Do not exclude them from activities just because they suffer from food allergy.**



Related links

Local websites on food allergy:

- Hong Kong Allergy Association: <http://www.allergyhk.org>
- Labelling Guidelines on Food Allergens, Food Additives: http://www.cfs.gov.hk/english/food_leg/food_leg_lgfa.html

Overseas websites on food allergy (English only):

- Food Allergy Research & Education (FARE): <https://www.foodallergy.org>
- Allergy UK: <https://www.allergyuk.org>

Appendix 7 Review of School Healthy Eating Policy (Example)

Date of review: 18/7/2018

Policy Statement:

Our school is committed to promoting the importance of healthy eating to our students, school personnel, teaching staff, catering staff and parents, on a long-term basis. This is achieved by establishing a healthy eating environment conducive to developing and making a habit of healthy eating in everyday life.

School administration	Executed	Pending to execute	Need improvement	Remarks
Appoint at least one designated staff to set up a committee or group with parents as members to assist the formulation and implementation of healthy eating policy.	✓			
Inform school personnel, the catering staff and parents of the school healthy eating policy and all relevant measures every year.	✓			Notice (5/9/2017)
Review and revise school healthy eating policy and implementation of various measures by means of meetings, questionnaires and face-to-face interviews in each school year.	✓			
The school meal arrangement committee reviews the policy and draft amendments for consulting other staff and parents. The revised policy should come into effect upon the principal's approval.	✓			
Ensure that the staff in charge of healthy eating promotion/meal arrangement received adequate support, including manpower, resources as well as time for organising activities and attending related training.	✓			

Other comments regarding school administration:

Note: The example can be downloaded at: <http://www.startsmart.gov.hk/en/others.aspx?MenuID=23>

Meal arrangement	Executed	Pending to execute	Need improvement	Remarks
Give priority to children's nutritional needs, nutritional value of food and hygiene when designing menus and preparing events on special occasions on which food will be supplied (e.g. birthday party). The recommendations in the " <i>Nutrition Guidelines for Children Aged 2 to 6</i> " issued by the Department of Health should be followed.			✓	A parent brought a mango cream cake to the March/ April birthday party.
Post the school menu, including the ingredients used, on notice boards and/ or website for parents' reference every month so that they will know what their children are eating at the institution.	✓			
Issue a notice at the beginning of a school year to encourage parents, who tend to bring food from home, to follow the healthy eating policy of the institution and prepare food that is in compliance with the recommendations of the " <i>Nutrition Guidelines for Children Aged 2 to 6</i> ".	✓			Notice (5/9/2017) The school kept the unhealthy food items and returned them to the children after school. Parents have been notified of the situation through the handbook.
Monitor the type, nutritional quality and hygienic condition of food by the meal arrangement committee. In each school term, the committee conducts a review with the catering staff and follows up any areas for improvement.	✓			
Provide meals at a regular time every day in a comfortable environment. Children and school personnel have sufficient time to eat.	✓			
Forbid any promotion on unhealthy food in school and refuse any sponsorship of school activities by manufacturers of such food.	✓			
Encourage children to drink plenty of water and ensure their access to water.	✓			

Other comments regarding meal arrangement:

Some children brought unhealthy snacks to share with others in the birthday party. It was recommended that a notice should be issued to parents beforehand to advise them not to bring any cakes or unhealthy snacks back to school.

Education and publicity	Executed	Pending to execute	Need improvement	Remarks
Organise at least one promotional activity on healthy eating in each school year, especially in promoting the cooperation among families, school and the community.	✓			Fruit month (4/2018) Eat vegetables daily (10/2017)
Actively educate parents and school staff by making reference to credible education materials on nutrition (e.g. materials provided by the Department of Health or relevant academic or professional organisations) so as to foster their understanding and concern for healthy eating in each school year.	✓			In the StartSmart Newsletter distributed to parents in October and March, information on healthy lunch and healthy snacks was given.
Incorporate nutrition education into school curriculum and activities to teach children the importance of healthy eating and practical skills to good eating habits.	✓			
Encourage parents and school staff to practise healthy eating in their daily life as well so that they could set themselves an example for their children/ students.	✓			Notice (5/9/2017)
Avoid giving food as rewards under all circumstances and delivering any messages contradicting to healthy dietary habits.	✓			Notice (5/9/2017)

Other comments regarding education and publicity:

Parent-child activities such as 'Enjoy fruit photo contest', 'I'm a farmer' were well received by children and parents.

Summary:

The school staff and parents were very supportive to healthy eating promotion.

The healthy eating activities organised by the institution were well received by children and parents.

Action Items in the Coming Year:

Action Items:	Responsible person/ group
1. Strengthen the communication with parents and encourage them to comply with the school healthy eating policy.	Meal Arrangement Committee
2. Organise parent-child activities that promote healthy eating.	Class teacher

Appendix 8 "StartSmart@school.hk" Evaluation Form

Through this evaluation form, kindergartens and child care centres can have an understanding of the promotion of healthy lifestyle (healthy eating and physical activity) and monitor the progress in creating a healthy living environment. Kindergartens and child care centres may assess different areas and list out improvement initiatives and follow-up action. The goal is to create a sustainable environment and culture that is conducive to healthy eating and regular exercise.

This Evaluation Form can be downloaded at: <http://www.startsmart.gov.hk/en/others.aspx?MenuID=23>

Name of the school: _____

Name and position of the reviewer: _____

Evaluation date: _____

Areas of evaluation	Please tick the appropriate box			Remarks
	Yes	No	N.A.	
A. School administration				
1. Has the school appointed at least one designated staff to set up a committee or group with parents as members to assist in the formulation and implementation of the policy on healthy eating and physical activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Does the institution inform its school staff, the catering staff as well as parents of its policy and all relevant measures on healthy eating and physical activity every school year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Does the institution review the policy and the implementation of various measures on healthy eating and physical activity by means of meetings, questionnaires and face-to-face interviews every year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does the meal arrangement and physical activity committee consult other teaching staff and parents before reviewing the policy and making amendments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Has the principal approved the revised policy before it comes into effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Have the teachers and staff responsible for promoting healthy eating/ meal arrangement and physical activity received adequate support, including manpower, resources as well as time for organising activities and attending related training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improvement and follow-up action:				

Areas of evaluation	Please tick the appropriate box			Remarks
	Yes	No	N.A.	
B. Meal arrangement				
1. Are children's nutritional needs, nutritional value of food and hygiene given priority when designing meals and preparing events on special occasions on which food will be supplied (e.g. birthday party)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Does the institution post its menu (including the ingredients used) on notice boards and/ or websites for parents' reference and comment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Did the institution issue a notice at the beginning of a school year to encourage parents, who tend to bring food from home, to follow the healthy eating policy of the institution and prepare food that is in compliance with the recommendations of the <i>Nutrition Guidelines for Children Aged 2 to 6</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does the meal arrangement committee monitor the type, nutritional quality and hygienic condition of food as well as conduct reviews with the catering staff and follow up any areas for improvement regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Does the institution provide meals (e.g. breakfast, snacks and lunch) at a regular time every day in a comfortable environment and provide sufficient time for children and school personnel to eat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Are there at least 4 hours between main meals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Are there at least 1.5 hours between snacks and main meals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Does the institution forbid any promotion on unhealthy food and refuse any sponsorship from food manufacturers on institution activities (e.g. sports day or birthday party)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Does the institution use other gifts (e.g. stationery, stickers, story books, towels) instead of food as rewards or birthday party presents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Does the institution notify parents about the food arrangement for the birthday party or other celebrations beforehand and encourage parents, who tend to bring food from home, to prepare food items that are in line with the school healthy eating policy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improvement and follow-up action:				

Areas of evaluation	Please tick the appropriate box			Remarks
	Yes	No	N.A.	
C. Food provision (main meals and snacks)				
1. Does the institution refer to the <i>Nutrition Guidelines for Children Aged 2 to 6</i> for its "Recommended servings for main meals" in Table 3 and "Recommended servings for snacks" in Table 6 when determining the servings for each main meal and snack?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Does the institution use the Menu Evaluation Form in Appendix 4 of the <i>Nutrition Guidelines for Children Aged 2 to 6</i> to ensure that the food provided every day is in line with the recommendations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Do children have potable water to use at all times?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. On the day of the birthday party, does the institution provide healthy snacks as usual without providing food high in fat, salt and sugar (e.g. sausage, ham, chicken wings, and cream cake)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improvement and follow-up action:				

Areas of evaluation	Please tick the appropriate box			Remarks
	Yes	No	N.A.	
D. Physical activity (implementation)				
1. Is the physical activity appropriate for the children's age and physical development needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Is there any stretching or cool-down exercise before/after physical activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Does the institution refer to the recommendations on safety regarding physical activity in the <i>Physical Activity Guide for Children Aged 2 to 6</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Is there sufficient space and ample opportunities for children to be creative and imaginative and to express themselves when doing physical activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Does the institution encourage children to drink plenty of water during or after physical activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improvement and follow-up action:				

Areas of evaluation	Please tick the appropriate box			Remarks
	Yes	No	N.A.	
E. Health education and home-school cooperation				
1. Has the institution referred to the <i>Nutrition Guidelines for Children Aged 2 to 6</i> and <i>Physical Activity Guide for Children Aged 2 to 6</i> and included the elements of healthy eating and physical activity in the curriculum?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Does the institution use different teaching activities (e.g. field visit, newspaper clipping, storytelling and singing/ playing) to help children learn more about healthy living?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Does the institution organise activities that enhance the cooperation among home, school and community in each school year (e.g. joining the Joyful Fruit Month held by the Department of Health) to promote healthy eating and regular exercise?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does the institution encourage the staff and parents to act as role models for healthy eating and regular exercise through various means of communication (e.g. notice, notice board and intranet)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Does the institution communicate and exchange ideas with parents through various means (e.g. student handbook, notice, intranet and notice board) so as to encourage home-school cooperation in creating a healthy living environment at school and at home?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Does the institution provide parents with information on healthy eating or physical activity, e.g. by distributing leaflets, pamphlets or health newsletters, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Does the institution avoid giving food as rewards and delivering messages contradicting to healthy eating and regular exercise under all circumstances?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improvement and follow-up action:				

References

1. The Centre for Health Education and Health Promotion of the Chinese University of Hong Kong and the Department of Early Childhood Education of the Hong Kong Institute of Education (2006). *Healthy Schools (Pre-school) Award Schemes Guidelines on Healthy Eating in Pre-primary Institutions*. Hong Kong SAR: The Chinese University of Hong Kong.
2. Elderly Health Service, Department of Health, Hong Kong SAR (2014). *Cookbook of Healthy Recipes*. Hong Kong SAR: Cosmos Books.
3. Elderly Health Service, Department of Health, Hong Kong SAR (2007). *On Healthy Eating: The Science and Lore of Food and Eating*. Hong Kong SAR: Cosmos Books.
4. Education Bureau and Social Welfare Department, Hong Kong SAR (2006). *Operation Manual for Pre-primary Institutions*. Hong Kong SAR: Education Bureau and Social Welfare Department.
5. Chinese Nutrition Society (2014). *Chinese Dietary Reference Intakes (2013 edition)*. Beijing: China Science Publishing and Media Ltd.
6. Department of Health and Ageing, Australian Government, Australia (2013). *Get Up & Grow: Healthy Eating and Physical Activity for Early Childhood*. Australia: Department of Health and Ageing. Available at: <http://www.health.gov.au>
7. Department of Health and Ageing, Australian Government, Australia (2009). *Get Set 4 Life: Habits for Healthy Kids*. Australia: Department of Health and Ageing. Available at: www.health.gov.au
8. Food and Nutrition Service, United States Department of Agriculture (2008). *Create Healthy, Active Celebrations: Easy Ways to Eat Smart and Play Hard with Friends and Family*. US: Department of Agriculture. Available at: <http://www.fns.usda.gov>
9. Health Promotion Board, Singapore (2017). School Programmes. Available at: <https://www.hpb.gov.sg/schools/school-programmes>
10. World Health Organization (2010). *Sets of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children*. Geneva: World Health Organization. Available at: <http://www.who.int/dietphysicalactivity/publication/recsmarketing/en/>

Acknowledgements

Caritas-Hong Kong

Chinese University of Hong Kong , Faculty of Medicine, The Jockey Club School of Public Health and Primary Care, Centre for Health Education and Health Promotion

Committee on Home-School Co-operation

Education Bureau

Education University of Hong Kong, Department of Early Childhood Education

Hong Kong Association for the Study of Obesity

Hong Kong Kindergarten Association

Hong Kong Nutrition Association

Leisure and Cultural Services Department

Non-Profit-Making Kindergarten Council of Hong Kong

Po Leung Kuk

Salvation Army

Tung Wah Group of Hospitals

Yan Chai Hospital

Yan Oi Tong



Nutrition Guidelines
For Children Aged 2 to 6



"StartSmart@school.hk" Campaign
<http://www.startsmart.gov.hk>

Revised by the Department of Health, January 2018



Nutrition Guidelines
For Children Aged 2 to 6



"StartSmart@school.hk" Campaign
<http://www.startsmart.gov.hk>

