

# **Healthy Meals in Preschools Programme (HMPP) Recommendation and Guidelines**

**Updated as of: 14 April 2023**

## **Contents:**

### **Recommendations:**

<b>HMPP Food Service Recommendations for 0 to 17 Months Old .....</b>	<b>3</b>
For 0-6 Months Old .....	3
For 7-9 Months Old .....	4
For 10-12 Months Old .....	5
For 13 to 17 Months Old .....	6

### **Guidelines:**

<b>HMPP Food Service Guidelines for 18 Months to 2 Years Old .....</b>	<b>7</b>
Cooked Food or Snack for 18 Months to 2 Years Old .....	7
Beverages for 18 Months to 2 Years Old .....	8
Desserts for 18 Months to 2 Years Old .....	9
<b>HMPP Food Service Guidelines for 3 to 6 Years Old .....</b>	<b>10</b>
Cooked Food or Snack for 3 to 6 Years Old.....	10
Beverages for 3 to 6 Years Old .....	11
Desserts for 3 to 6 Years Old.....	12
Occasions Outside Main Meals .....	13
<b>Appendix A – Storage and Thawing Process of Breastmilk .....</b>	<b>14</b>
<b>Appendix B – Food Texture and Size .....</b>	<b>15</b>
<b>Appendix C – Food Category, Examples and Requirements.....</b>	<b>16</b>
<b>Appendix D – Recommended Dietary Allowance (RDA) for Calcium .....</b>	<b>17</b>
Examples of Calcium-Rich Food: .....	17
<b>Appendix E – Examples of Pre-Deep-Fried Food and Healthier Alternatives .....</b>	<b>18</b>
<b>Appendix F: Summary of Meal Portion Requirements of a child from 0 to 6 years old .....</b>	<b>19</b>
<b>ENDNOTES.....</b>	<b>20</b>

## HMPP Food Service Recommendations for 0 to 17 Months Old

### For 0-6 Months Old

Food Category	Serving Size (Per full day session in school unless otherwise mentioned)	Product Criteria	Preparation Method
<b>Milk<sup>#</sup></b>	500-1000ml (per 24hrs)	<ul style="list-style-type: none"> <li>• Mother's expressed breastmilk or infant formula</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Appendix A</li> </ul>
<b>Upon starting weaning foods</b>	Start by giving 1-2 teaspoons and gradually increase the amount according to the infant's cue.	<ul style="list-style-type: none"> <li>• Iron-fortified rice cereals or food from any food group in the form of puree</li> </ul>	<ul style="list-style-type: none"> <li>• Fully cooked until smooth and lump-free in texture which can be consumed without chewing.</li> <li>• Mix with milk if necessary</li> </ul>
<b>Fats and Oils</b>	-	<ul style="list-style-type: none"> <li>• <b>No</b> added oil</li> </ul>	-
<b>Sauces, Spreads, Condiments, Sugar and Salt</b>	-	<ul style="list-style-type: none"> <li>• <b>No</b> added Sauces, Spreads, Condiments, Sugar and Salt</li> </ul>	-

<sup>#</sup>Note: If a child has lactose intolerance/milk allergy, please consult a physician for advice.

### For 7-9 Months Old

Food Category	Serving Size (Per full day session in school unless otherwise mentioned)	Product Criteria	Preparation Method
<b>Milk<sup>#</sup></b>	500-750ml (per 24hrs)	<ul style="list-style-type: none"> <li>• Mother's expressed breastmilk or infant formula</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Appendix A</li> </ul>
<b>Wholegrains</b>	3-4 tablespoons to ¼ bowl	<ul style="list-style-type: none"> <li>• Include wholegrain (20% of the total portion) <b>and/or</b></li> <li>• Iron-fortified rice cereals or any other grain food (e.g. porridge, rice, noodles or pasta)</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft, and in <b>finely minced pieces</b> which requires minimal chewing.</li> </ul>
<b>Fruit</b>	1-2 heaped tablespoons (Approximately 30-60g)	<ul style="list-style-type: none"> <li>• Fresh</li> </ul>	<ul style="list-style-type: none"> <li>• Soft or cooked until soft and chopped or cut into <b>finely minced pieces</b> which requires minimal chewing.</li> </ul>
<b>Vegetables</b>	1-2 heaped tablespoons (Approximately 30-60g)	<ul style="list-style-type: none"> <li>• Fresh or frozen vegetable</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft, and chopped or cut into <b>finely minced pieces</b> which required minimal chewing</li> </ul>
<b>Protein (Meat and Others)</b>	1-2 heaped tablespoons (Approximately 30-60g)	<ul style="list-style-type: none"> <li>• Fresh or frozen lean meat</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft, and chopped or cut into <b>finely minced pieces</b> which requires minimal chewing</li> </ul>
<b>Fats and Oils</b>	-	<ul style="list-style-type: none"> <li>• <b>No</b> added oil</li> </ul>	-
<b>Sauces, Spreads, Condiments, Sugar and Salt</b>	-	<ul style="list-style-type: none"> <li>• <b>No</b> added Sauces, Spreads, Condiments, Sugar and Salt</li> </ul>	-

<sup>#</sup>Note: If a child has lactose intolerance/milk allergy, please consult a physician for advice.

### For 10-12 Months Old

Food Category	Serving Size (Per full day session in school unless otherwise mentioned)	Product Criteria	Preparation Method
<b>Milk<sup>#</sup></b>	500-750ml (per 24hrs)	<ul style="list-style-type: none"> <li>• Mother's expressed breastmilk or infant formula</li> <li>• Plain full cream milk (<b>For 12 months old and above</b>)</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Appendix A</li> </ul>
<b>Wholegrains</b>	3-4 tablespoons to ¼ bowl	<ul style="list-style-type: none"> <li>• Include <b>20% or more of the total portion</b> with wholegrain ingredients.</li> <li>• Grain food (e.g. porridge, rice, noodles or pasta)</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft and in bite-sized pieces</li> </ul>
<b>Fruit</b>	1-2 heaped tablespoons (Approximately 30-60g)	<ul style="list-style-type: none"> <li>• Fresh</li> </ul>	<ul style="list-style-type: none"> <li>• Soft or cooked until soft and cut into bite-sized pieces</li> </ul>
<b>Vegetables</b>	1-2 heaped tablespoons (Approximately 30-60g)	<ul style="list-style-type: none"> <li>• Fresh or frozen vegetable</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft, and chopped or cut into bite-sized pieces</li> </ul>
<b>Protein (Meat and Others)</b>	1-2 heaped tablespoons (Approximately 30-60g)	<ul style="list-style-type: none"> <li>• Fresh or frozen lean meat</li> <li>• To include calcium rich food where possible</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft and chopped or cut to bite-sized pieces</li> </ul>
<b>Fats and Oils</b>	-	<ul style="list-style-type: none"> <li>• <b>No</b> added oil in food for children <b>under 12 months</b></li> <li>• Oil with HCS can be used or added to prepare meals for <b>12 months and above</b></li> </ul>	-
<b>Sauces, Spreads, Condiments, Sugar and Salt</b>	-	<ul style="list-style-type: none"> <li>• <b>No</b> added Sauces, Spreads, Condiments, Sugar and Salt in food for children <b>under 12 months</b></li> <li>• Light seasoning could be added to meals for <b>12 months and above</b>, if required</li> </ul>	-

<sup>#</sup>Note: If a child has lactose intolerance/milk allergy, please consult a physician for advice.

### For 13 to 17 Months Old

Food Category	Serving Size (Per full day session in school unless otherwise mentioned)	Product Criteria	Preparation Method
Milk <sup>#</sup>	500ml (per 24hrs)	<ul style="list-style-type: none"> <li>• Mother's expressed breastmilk or infant formula</li> <li>• Plain full cream milk (<b>For 12 months old and above</b>)</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Appendix A</li> </ul>
Wholegrains	½ to 1 serve	<ul style="list-style-type: none"> <li>• Include <b>20% or more of the total portion</b> with wholegrain ingredients</li> <li>• Grain food (e.g. porridge, rice, noodles or pasta).</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft and in bite-sized pieces</li> </ul>
Fruit	¼ or more serve of fruit (e.g. ¼ apple (35g), ½ small banana, or 3 grapes)	<ul style="list-style-type: none"> <li>• Fresh</li> </ul>	<ul style="list-style-type: none"> <li>• Soft or cooked until soft and cut into bite-sized pieces</li> </ul>
Vegetables	1-2 heaped tablespoons (Approximately 30-60g)	<ul style="list-style-type: none"> <li>• Fresh or frozen vegetable</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft, and chopped or cut into bite-sized pieces</li> </ul>
Protein (Meat and Others)	1-2 heaped tablespoons (Approximately 30-60g)	<ul style="list-style-type: none"> <li>• Fresh or frozen lean meat</li> <li>• To include calcium rich food where possible</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked until soft and chopped or cut to bite-sized pieces</li> </ul>
Fats and Oils	-	<ul style="list-style-type: none"> <li>• Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Fats and Oils category)</li> </ul>	-
Sauces, Spreads, Condiments, Sugar and Salt	-	<ul style="list-style-type: none"> <li>• Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guideline (Sauces, Spreads and Condiments category)</li> <li>• Light seasoning could be added to meals, if required</li> </ul>	-

<sup>#</sup>Note: If a child has lactose intolerance/milk allergy, please consult a physician for advice.

## HMPP Food Service Guidelines for 18 Months to 2 Years Old

**Note:** Food from the 3 food groups (Wholegrain, Vegetables and Protein) of My Healthy Plate must be served at lunch. Fruit must be served daily at any time in the stated portion sizes as listed below.

It is recommended to include all 4 food groups in other meals (E.g. Breakfast or tea breaks) too. Processed food is **not recommended** to be served as it typically contains high amount of sodium.

### **Cooked Food or Snack for 18 Months to 2 Years Old**

No.	Food Category	Serving Size <sup>1</sup>	Product Criteria	Preparation Method
1	Wholegrains	<p><b>½ serve or more</b></p> <p><b>Examples of 1 serve:</b></p> <ul style="list-style-type: none"> <li>• 100g of cooked mixed rice (20% wholegrain + 80% white)</li> <li>• 100g of cooked wholegrain oriental noodle</li> <li>• 100g of cooked wholegrain bee hoon</li> <li>• 2 slices of wholegrain bread (60g)</li> </ul>	<ul style="list-style-type: none"> <li>• Commercially prepared products carrying the Healthier Choice Symbol (HCS), or meet the “% of Whole-grains” and Sugar criteria of the HCS guidelines (Cereal category)</li> <li>• For homemade snack, sugar level must be <b>12g or less</b> per serving<sup>2</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>• Fully cooked</li> <li>• <b>No</b> deep frying</li> </ul>
2	Fruit	<p><b>¼ serve or more</b> fruit (e.g. ¼ apple (35g), ¼ wedge watermelon (32.5g), or ¼ wedge papaya (32.5g))</p>	<ul style="list-style-type: none"> <li>• Fresh</li> </ul>	<ul style="list-style-type: none"> <li>• Whole or Cut</li> </ul>
3	Vegetables <sup>3</sup>	<p><b>1 heaped tablespoon or more</b> (Approximately 30g)</p>	<ul style="list-style-type: none"> <li>• Products carrying the Healthier Choice Symbol (HCS), or meet the HCS guidelines (Fruit and Vegetable category)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>No</b> deep frying</li> </ul>
4	Protein <sup>4</sup> (Meat and Others)	<p><b>1 heaped tablespoon or more</b> (Approximately 30g)</p>	<ul style="list-style-type: none"> <li>• Fresh or frozen lean meat</li> <li>• Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Protein category)</li> <li>• To include <a href="#">calcium-rich food</a> where possible</li> </ul>	<ul style="list-style-type: none"> <li>• Fully cooked</li> <li>• <b>No</b> deep frying</li> </ul>
5	Fats and Oils <sup>5</sup>	-	<ul style="list-style-type: none"> <li>• Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Fats and Oils category)</li> </ul>	-
6	Sauces, Spreads Condiments and Salt	-	<ul style="list-style-type: none"> <li>• Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guideline (Sauces, Spreads and Condiments category)</li> </ul>	<ul style="list-style-type: none"> <li>• According to manufacturer’s instructions on the packaging</li> </ul>

**Note:** To encourage students to opt for water as their preferred choice of drink, preschool must ensure potable water is always available as required by the students.

## Beverages for 18 Months to 2 Years Old

No.	Beverage Category	Serving Size	Product Criteria	Preparation Method
7	Milk <sup>#</sup>	150ml or more per serve  <ul style="list-style-type: none"> <li>For <u>full day</u> service, provide <b>2 or more</b> serve daily</li> <li>For <u>half day</u> service, provide <b>1 or more</b> serve daily</li> </ul>	<ul style="list-style-type: none"> <li>Mother's expressed breastmilk or switch to plain full cream milk (fresh milk, UHT, powdered)</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Appendix A for preparation of breastmilk</li> <li>According to manufacturer's instructions on the packaging (if any).</li> </ul>

**#Note:** If a child has lactose intolerance/milk allergy, please consult a physician for advice.

Below beverages are **not encouraged** to be served. If served, the following guidelines are applicable:

No.	Beverage Category	Serving Size	Product Criteria	Preparation Method
8	<ul style="list-style-type: none"> <li><b>Sugar-based drinks</b> (E.g. Non-carbonated drinks/Asian drink)</li> <li><b>Juice</b></li> <li><b>Dairy/creamer-based drinks</b> (E.g. Malted or Chocolate drink, Yogurt drink, Flavoured milk, and etc)</li> <li><b>Plant-based milk*</b> (E.g. Soy milk, Oat milk and etc)</li> </ul>	150ml or less per serve (optional to serve)  Limit to 1 serving per child per day.	<ul style="list-style-type: none"> <li>Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Beverage's category)</li> <li>The following items or practices are <b>not allowed</b>: <ol style="list-style-type: none"> <li>Free access to or addition of sugar, sugar syrup, cordial syrup<sup>6</sup> or honey</li> <li>Added toppings<sup>7</sup></li> <li>Sweeteners<sup>8</sup></li> <li>Coffee or Tea (Excludes flower tea<sup>9</sup>)</li> </ol> </li> </ul>	<p>According to manufacturer's instructions on the packaging (if any).</p> <p><b>Example of preparation instructions on package:</b> Put 30g of dairy/creamer-based drink into a cup. Add 200ml of hot/warm water (full cream milk can be added) and stir.</p>
9	<ul style="list-style-type: none"> <li><b>Homemade or freshly prepared beverages</b> (E.g. Barley water, Flower tea, Red date tea, and etc)</li> </ul>		<ul style="list-style-type: none"> <li><b>From 31<sup>st</sup> December 2023, sugar level must be 5g or less and saturated fat must be 1.2g or less per 100ml of beverage.</b></li> </ul>	Please refer to HPB's resources for guidance.
10	<ul style="list-style-type: none"> <li><b>Freshly squeezed fruit juice</b></li> </ul>		<ul style="list-style-type: none"> <li><b>From 31<sup>st</sup> December 2023, per 100ml of juice must contain 5g or less sugar</b> that is naturally present in fruits</li> <li>The following items or practices are <b>not allowed</b>: <ol style="list-style-type: none"> <li>Free access to or addition of sugar, sugar syrup, cordial syrup or honey</li> <li>Added toppings</li> <li>Sweeteners</li> <li>Coffee or Tea (Exclude flower tea)</li> </ol> </li> </ul>	<p>Mix 1 part of water or ice to 2 parts of freshly squeezed juice.</p> <p><b>Example:</b> 50ml of water + 100ml of freshly squeezed fruit juice</p>

\*Limit of 1 serve per day excludes children who only consume non-dairy products.



### Desserts for 18 Months to 2 Years Old

No.	Food Category	Serving Size	Product Criteria	Preparation Method
11	<ul style="list-style-type: none"> <li>• Local soup desserts</li> <li>• Jellies</li> <li>• Pudding</li> <li>• Local and seasonal cakes</li> <li>• Frozen desserts</li> </ul>	200g or less for soup dessert if it is being served	<ul style="list-style-type: none"> <li>• Commercially prepared products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Dessert's category)</li> <li>• For homemade dessert, sugar level must be <b>12g or less</b> per serving.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>No</b> deep frying</li> </ul>

Cooks are encouraged to use fruit or vegetables to sweeten home-baked snacks/soup desserts.

## HMPP Food Service Guidelines for 3 to 6 Years Old

**Note:** Food from the 3 food groups (Wholegrain, Vegetables and Protein) of My Healthy Plate must be served at lunch. Fruit must be served daily at any time in the stated portion sizes as listed below.

It is recommended to include all 4 food groups in other meals (E.g. Breakfast or tea breaks) too. Processed food is **not recommended** to be served as it typically contains high amount of sodium.

### **Cooked Food or Snack for 3 to 6 Years Old**

No.	Food Category	Serving Size <sup>1</sup>	Product Criteria	Preparation Method
1	Wholegrains	<b>1 serve or more</b>  <b>Examples of 1 serve:</b> <ul style="list-style-type: none"> <li>• 100g of cooked mixed rice (20% wholegrain + 80% white)</li> <li>• 100g of cooked wholegrain oriental noodle</li> <li>• 100g of cooked wholegrain bee hoon</li> <li>• 2 slices of wholegrain bread (60g)</li> </ul>	<ul style="list-style-type: none"> <li>• Commercially prepared products carrying the Healthier Choice Symbol (HCS), or meet the “% of Whole-grains” and Sugar criteria of the HCS guidelines (Cereal category)</li> <li>• For homemade snack, sugar level must be <b>12g or less</b> per serving.</li> </ul>	<ul style="list-style-type: none"> <li>• Fully cooked</li> <li>• <b>No</b> deep frying</li> </ul>
2	Fruit	<b>½ serve or more</b> fruit (e.g. ½ apple (70g), ½ wedge watermelon (65g), ½ wedge papaya (65g)	<ul style="list-style-type: none"> <li>• Fresh</li> </ul>	<ul style="list-style-type: none"> <li>• Whole or Cut</li> </ul>
3	Vegetables	<b>1.5 heaped tablespoons or more</b> (Approximately 45g)	<ul style="list-style-type: none"> <li>• Products carrying the Healthier Choice Symbol (HCS), or meet the HCS guidelines (Fruit and Vegetable category)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>No</b> deep frying</li> </ul>
4	Protein (Meat and Others)	<b>1.5 heaped tablespoons or more</b> (Approximately 45g)	<ul style="list-style-type: none"> <li>• Fresh or frozen lean meat</li> <li>• Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Protein category)</li> <li>• To include <a href="#">calcium-rich food</a> where possible</li> </ul>	<ul style="list-style-type: none"> <li>• Fully cooked</li> <li>• <b>No</b> deep frying</li> </ul>
5	Fats and Oils <sup>5</sup>	-	<ul style="list-style-type: none"> <li>• Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Fats and Oils category)</li> </ul>	-
6	Sauces, Spreads Condiments and Salt	-	<ul style="list-style-type: none"> <li>• Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guideline (Sauces, Spreads and Condiments category)</li> </ul>	<ul style="list-style-type: none"> <li>• According to manufacturer’s instructions on the packaging</li> </ul>

**Note:** To encourage students to opt for water as their preferred choice of drink, preschool must ensure potable water is always available as required by the students.

## Beverages for 3 to 6 Years Old

No.	Beverage Category	Serving Size	Product Criteria	Preparation Method
7	Milk <sup>#</sup>	150ml or more per serve  <ul style="list-style-type: none"> <li>For <u>full day</u> service, provide <b>2 or more</b> serve daily</li> <li>For <u>half day</u> service, provide <b>1 or more</b> serve daily</li> </ul>	<ul style="list-style-type: none"> <li><b>Recommended:</b> Plain <b>low-fat</b> milk (fresh milk, UHT, powdered) <b>Or</b></li> <li>Plain full cream milk (fresh milk, UHT, powdered)</li> </ul>	<ul style="list-style-type: none"> <li>According to manufacturer's instructions on the packaging (if any).</li> </ul>

<sup>#</sup>**Note:** If a child has lactose intolerance/milk allergy, please consult a physician for advice.

Below beverages are not encouraged to be served. If served, the following guidelines are applicable:

No.	Beverage Category	Serving Size	Product Criteria	Preparation Method
8	<ul style="list-style-type: none"> <li><b>Sugar-based drinks</b> (E.g. Non-carbonated drinks/Asian drink)</li> <li><b>Juice</b></li> <li><b>Dairy/creamer-based drinks</b> (E.g. Malted or Chocolate drink, Yogurt drink, Flavoured milk, and etc)</li> <li><b>Plant-based milk*</b> (E.g. Soy milk, Oat milk and etc)</li> </ul>	150ml or less per serve (optional to serve)  Limit to 1 serving per child per day.	<ul style="list-style-type: none"> <li>Products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Beverage's category)</li> <li>The following items or practices are <b>not allowed</b>: <ol style="list-style-type: none"> <li>Free access to or addition of sugar, sugar syrup, cordial syrup or honey</li> <li>Added toppings</li> <li>Sweeteners</li> <li>Coffee or Tea (Excludes flower tea)</li> </ol> </li> </ul>	<p>According to manufacturer's instructions on the packaging (if any).</p> <p><b>Example of preparation instructions on package:</b> Put 30g of dairy/creamer-based drink into a cup. Add 200ml of hot/warm water (<b>low-fat</b> milk can be added) and stir.</p>
9	<ul style="list-style-type: none"> <li><b>Homemade or freshly prepared beverages</b> (E.g. Barley water, Flower tea, Red date tea, and etc)</li> </ul>		<ul style="list-style-type: none"> <li><b>From 31<sup>st</sup> December 2023, sugar level must be 5g or less and saturated fat must be 1.2g or less per 100ml of beverage.</b></li> </ul>	Please refer to HPB's resources for guidance.
10	<ul style="list-style-type: none"> <li><b>Freshly squeezed fruit juice</b></li> </ul>		<ul style="list-style-type: none"> <li><b>From 31<sup>st</sup> December 2023, per 100ml of juice must contain 5g or less sugar</b> that is naturally present in fruits</li> <li>The following items or practices are <b>not allowed</b>: <ol style="list-style-type: none"> <li>Free access to or addition of sugar, sugar syrup, cordial syrup or honey</li> <li>Added toppings</li> <li>Sweeteners</li> <li>Coffee or Tea (Exclude flower tea)</li> </ol> </li> </ul>	<p>Mix 1 part of water or ice to 2 parts of freshly squeezed juice.</p> <p><b>Example:</b> 50ml of water + 100ml of freshly squeezed fruit juice</p>

\*Limit of 1 serve per day excludes children who only consume non-dairy products.

### Desserts for 3 to 6 Years Old

No.	Food Category	Serving Size	Product Criteria	Preparation Method
11	<ul style="list-style-type: none"> <li>• Local soup desserts</li> <li>• Jellies</li> <li>• Pudding</li> <li>• Local and seasonal cakes</li> <li>• Frozen desserts</li> </ul>	200g or less for soup dessert if it is being served	<ul style="list-style-type: none"> <li>• Commercially prepared products carrying the Healthier Choice Symbol (HCS) or meet the HCS guidelines (Dessert's category)</li> <li>• For homemade dessert, sugar level must be <b>12g or less</b> per serving.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>No</b> deep frying</li> </ul>

Cooks are encouraged to use fruit or vegetables to sweeten home-baked snacks/soup desserts.

## Occasions Outside Main Meals

Healthier option guidelines for snack breaks, class parties, and class excursions	
Category	Examples
Savoury	<ul style="list-style-type: none"><li>• Boiled eggs</li><li>• HCS crackers with HCS cheese and/or dips</li><li>• Mini pizzas or toasted sandwiches made with fresh produce and/or HCS ingredients</li><li>• Popcorn with minimal fat, salt and/or sugar</li><li>• Roasted sweet potatoes with herbs</li></ul>
Sweet	<ul style="list-style-type: none"><li>• Bun with HCS</li><li>• Dried fruit with HCS</li><li>• Frozen or canned fruit with HCS</li><li>• Fruit salads, whole fruit, cut fruit</li><li>• Mixed nuts and seeds with HCS</li><li>• Muffin with HCS</li><li>• Roll with HCS</li><li>• Waffle with HCS</li><li>• Yoghurt and fruit with HCS</li></ul>

HCS = Healthier Choice Symbol

## Appendix A – Storage and Thawing Process of Breastmilk

### Storage of the expressed breastmilk:

Place of Storage	Recommended Storage Duration
Expressed milk at room temperature of 25°C	4 hours
Expressed milk in a cooler with ice pack at 15°C	24 hours
Breast milk freshly expressed and stored in the fridge at 4°C	48 hours
Frozen milk in 2-door fridge stored at -5°C to -15°C	3 - 6 months
Frozen milk in deep freezer at -20°C	6 - 12 months
Thawed breast milk stored in the fridge at 4°C	24 hours

### Thawing process:

- Thaw frozen milk in the refrigerator or in a cup of warm water.
- Use the milk immediately or within one hour.
- Avoid boiling or heating breast milk in a microwave.

Source: <https://www.healthhub.sg/live-healthy/1141/pregnancy-feeding-your-baby-breastfeeding>

## Appendix B – Food Texture and Size



**Source:** Health Hub (<https://www.healthhub.sg/programmes/122/early-nutrition-for-babies/6-12months/>)

## Appendix C – Food Category, Examples and Requirements

Food Category	Includes
Wholegrains (Cereals)	<ol style="list-style-type: none"> <li>1. Rice, Mixed Rice, Wholegrain (Barley, Millet, Quinoa)</li> <li>2. Pasta (For pasta, ≥20% used must meet “% of Whole-grains” criteria of Pasta as stated in the HCS guidelines)</li> <li>3. Oriental Noodle (e.g. Bee hoon, Kway teow, Yellow noodles, Mee tai mak, Egg noodles, Laksa noodles, Instant noodles, Ban mian, etc). Only wholegrain oriental noodles which meets HCS nutrient guidelines shall be used.</li> <li>4. All product listed under “Cereal” category in HCS guidelines (E.g. Bread, Bun, Steam Bun, Muffin, Cakes, Pastries)</li> </ol>
Fruits	<ol style="list-style-type: none"> <li>1. Fresh fruits only</li> </ol>
Vegetables	<ol style="list-style-type: none"> <li>1. Leafy vegetables (E.g. Spinach, Bok choy, Chye sim, Kai lan, Kang kong, Cabbage and etc)</li> <li>2. Non-leafy vegetables (E.g. Carrot, Radish, Broccoli, Cauliflower, Tomato, Cucumber and etc)</li> </ol> <p>Starchy vegetables (e.g. Corn, Potato, Pumpkin, Sweet potato, Yam, Lotus root, Butternut squash, Cassava, Burdock root) has a higher carbohydrate content and hence will <b>not be considered as “vegetable”</b> under this programme.</p>
Protein (Meat and Others)	<ol style="list-style-type: none"> <li>1. Meat and poultry without skin</li> <li>2. Fish and seafood</li> <li>3. Processed (E.g. Fish fillet, Surimi, Fish ball, Crab stick, Fish cake)</li> <li>4. Dairy (E.g. Cheese, Yogurt)</li> <li>5. Egg and egg products (E.g. Egg tofu)</li> <li>6. Plant based protein/soy products (Legumes, Tofu, Tau Kwa, Plant-based meat alternative (Mock meat))</li> </ol>
Fats and Oils	<ol style="list-style-type: none"> <li>1. Margarine/Fat spreads</li> <li>2. Cooking Oil (E.g. Canola, Rice Bran, Sunflower, etc)</li> <li>3. Salad Dressing/Mayonnaise</li> </ol>
Sauces, Spreads, Condiments and Salt	<ol style="list-style-type: none"> <li>1. Table salt</li> <li>2. Light soy sauce</li> <li>3. Dark soy sauce</li> <li>4. Soy sauce and marinades (E.g. Herb/spice infused soy sauce, flavoured /seasoned soy sauce, etc)</li> <li>5. Oyster sauce</li> <li>6. Vegetarian oyster sauce</li> <li>7. Tomato sauce</li> <li>8. Chilli sauce</li> <li>9. Western sauces (E.g. BBQ, Black pepper, Demi glaze, Mustard, etc)</li> <li>10. Pasta sauces (E.g. Tomato and Cream or cheese based)</li> <li>11. Soup and broth (E.g. Chicken stock, Fish stock, Beef stock, etc)</li> <li>12. Asian recipe mixes (E.g. Laksa paste, Mee Siam paste, etc)</li> <li>13. Asian cooking sauces (E.g. Sweet and sour sauce, Lemon sauce, Black pepper sauce, Kung Bo sauce, etc)</li> <li>14. Evaporated milk</li> <li>15. Condensed milk</li> <li>16. Egg jam (E.g. Kaya)</li> <li>17. Fruit spread</li> <li>18. Nuts and seed butter</li> </ol>



## Appendix D – Recommended Dietary Allowance (RDA) for Calcium

Age Groups	RDA for Calcium
Infants (0 - 6 months, breast-fed)	300mg
Infants (0 - 6 months, formula-fed)	400mg
Infants (7 - less than 12 months)	400mg
Children (1 - 3 years)	500mg
Children (4 - 6 years)	600mg

Source: <https://www.healthhub.sg/live-healthy/192/recommended-dietary-allowances>

### Examples of Calcium-Rich Food:













	Food	Serving Size	Calcium Content (mg)
Dairy products	High-calcium milk powder	4 scoops (25g)	500
	Low-fat milk	1 glass (250ml)	380
	Full-cream milk	1 glass (250ml)	300
	Low-fat yoghurt	1 carton (150g)	240
	Low-fat cheese*	1 slice (20g)	200
Non-dairy foods	Canned sardine (with bones)*	1 fish (80g)	270
	Dried ikan bilis (with bones)*	2 tablespoons (40g)	270
	Silken tofu	package (150g)	100
	Tau kwa	1 small cake (90g)	150
	Dhal (raw)	1 mug (50g)	85
	Baked beans, canned*	can (210g)	110
	Kai lan, cooked	1 mug (100 g)	195
	Spinach, cooked	1 mug (100 g)	140
	Chye sim, cooked	1 mug (100 g)	140
	Broccoli, cooked	1 mug (100 g)	50
Calcium-fortified products	High-calcium soybean milk	1 glass (250ml)	450
	Enriched bread	2 slices (60 g)	100
	Calcium-fortified orange juice	1 serving (240 ml)	350

\*Item may be high in salt

Source: <https://www.healthhub.sg/live-healthy/518/Calcium%20-%20For%20Greater%20Bone%20Strength>

## Appendix E – Examples of Pre-Deep-Fried Food and Healthier Alternatives

The table below includes some food which are commonly deep-fried during the preparation process and the healthier alternative which the preschool can consider serving.

No.	Pre-Deep Fried Food	Non-Deep-Fried Version (Healthier alternatives)
1	<p>[Commercial] Pre-deep-fried French Fries</p> 	<p>[Home cook] Baked/Pan fried Potato Wedges</p> 
2	<p>[Commercial] Pre-deep-fried Nuggets</p> 	<p>[Home cook] Baked/Pan fried Chicken or Fish Nuggets</p> 
3	<p>[Commercial] Pre-deep-fried Ee Mee/ Maggi Mee</p> 	<p>[Commercial] Brown Rice Bee Hoon/ Fresh Noodles</p> 
4	<p>[Commercial] Pre-deep-fried Fish Cake</p> 	<p>[Commercial] Non-deep-fried Fish Cake</p> 
5	<p>[Commercial] Pre-deep-fried Hash Brown</p> 	<p>[Home cook] Pan-fried Hash Brown</p> 
6	<p>[Commercial] Pre-deep-fried Seaweed Chicken</p> 	<p>[Home cook] Baked/Pan-fried/Grilled Homemade Seaweed Chicken</p> 

**Appendix F: Summary of Meal Portion Requirements of a child from 0 to 6 years old**

No.	Food Category	0-6 Months	7-9 Months	10-12 Months	13-17 Months	18 Months to 2 Years Old	3 to 6 Years Old
1	Mother's expressed breastmilk or infant formula <sup>#</sup>	500-1000ml (per 24hrs)	500-750ml (per 24hrs)	500-750ml (per 24hrs)	500ml (per 24hrs)	Not applicable	
2	Milk <sup>#</sup> or Calcium-fortified beverages with HCS	Not Applicable		Plain full cream milk can be served <b>for 12 months old and above.</b>		<b>150ml or more</b> per serve <ul style="list-style-type: none"> <li>For <u>full day</u> service, provide <b>2 or more</b> serve daily</li> <li>For <u>half day</u> service, provide <b>1 or more</b> serve daily</li> </ul>	
2	Wholegrains	Upon weaning, start by giving 1-2 teaspoons and gradually increase the amount according to the infant's cue.	<b>3-4 tablespoons to ¼ bowl</b>		<b>½ to 1 serve</b>	<b>½ serve or more</b> (E.g. 50g or more of cooked mixed rice (20% wholegrain + 80% white))	<b>1 serve or more</b> (E.g. 100g or more of cooked wholegrain oriental noodle (kway teow, yellow noodle, etc))
3	Fruit		<b>1-2 heaped tablespoons</b> (Approximately 30-60g)		<b>¼ or more serve</b> (E.g. ¼ apple (35g), ½ small banana, or 3 grapes)	<b>¼ serve or more</b> E.g. ¼ apple (35g), ¼ wedge watermelon (32.5g), or ¼ wedge papaya (32.5g)	<b>½ serve or more</b> (E.g. ½ apple (70g), ½ wedge watermelon (65g), ½ wedge papaya (65g))
4	Vegetables		<b>1-2 heaped tablespoons</b> (Approximately 30-60g)			<b>1 heaped tablespoon or more</b> (Approximately 30g)	<b>1.5 heaped tablespoons or more</b> (Approximately 45g)
5	Protein (Meat and Others)		<b>1-2 heaped tablespoons</b> (Approximately 30-60g)			<b>1 heaped tablespoon or more</b> (Approximately 30g)	<b>1.5 heaped tablespoons or more</b> (Approximately 45g)
6	Fats and Oils		<ul style="list-style-type: none"> <li><b>No</b> added oil</li> </ul>		<ul style="list-style-type: none"> <li><b>No</b> added oil</li> <li>Oil with HCS can be used or added to prepare meals <b>for 12 months and above</b></li> </ul>		
7	Sauces, Spreads Condiments and Salt	<ul style="list-style-type: none"> <li><b>No</b> added Sauces, Spreads, Condiments, Sugar and Salt</li> <li>Light seasoning could be added to meals <b>for 12 months and above</b>, if required</li> </ul>			<ul style="list-style-type: none"> <li>Light seasoning could be added to meals, if required</li> </ul>		

<sup>#</sup>Note: If a child has lactose intolerance/milk allergy, please consult a physician for advice.

## ENDNOTES

---

<sup>1</sup> Refers to the serving size each time the food is served.

<sup>2</sup> Per serving refers to a typical serving portion of the homemade snack/dessert.

<sup>3</sup> Starchy vegetables (e.g. Corn, Potato, Pumpkin, Sweet potato, Yam, Lotus root, Butternut squash, Cassava, Burdock root) has a higher carbohydrate content and hence will **not be considered as “vegetable”** under this programme.

<sup>4</sup> Includes Dairy, Egg, Plant-based protein and Soy products.

<sup>5</sup> When high-fat ingredients (e.g. coconut cream/coconut milk) are used, only reduced-fat alternatives (e.g. Trim coconut milk, Lite coconut milk, Super lite coconut milk) which contains **15g or less total fat per 100ml** can be used.

<sup>6</sup> Examples are Rose syrup, Barley syrup, Fruit syrup etc.

<sup>7</sup> Examples are tapioca pearls, whipped cream, chocolate, cocoa powder, coconut flakes, sweetened solid ingredients etc.

<sup>8</sup> Examples of intense sweeteners include sugar alcohols, monk fruit extract, stevia, acesulfame K, sucralose and aspartame. The aim is to cultivate a palate for less sweet drinks among the youths. We recognise that sweeteners may condition our palates to demand sweet food and drinks in our diet, which may lead to excessive calorie and sugar intake. Therefore, drinks containing non-sugar sweeteners are disallowed in preschools.

<sup>9</sup> Examples of flower tea are Chrysanthemum, Jasmine flower, Osmanthus, Honeysuckle, Rose and etc