

# nutritional guidance for early years

food choices for children aged 1-5 years in early education and childcare settings



healthier  
scotland  
SCOTTISH EXECUTIVE





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food choices for children aged 1-5 years in early education and childcare settings

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**“Scotland has a poor record on children’s oral health and the Scottish Executive and the dental profession are working hard to tackle the problem. But dental services cannot tackle the problem alone. A healthy diet and learning good food and oral hygiene habits will play a key part in improving our children’s oral health. Early education and childcare settings have an important role to play in this. I therefore support this guidance and the contribution it will make to promoting our children’s oral health.”**

Ray Watkins, Chief Dental Officer, Scottish Executive

**“City of Edinburgh Council Children and Families Department believes firmly in the importance of diet and nutrition for the future health and wellbeing our youngest children. We will be working with colleagues in a range of agencies to incorporate the use of these guidelines into the delivery of our Health Strategy for children.”**

Roy Jobson, Director, Children and Families Department, City of Edinburgh Council

**“Scottish Childminding Association welcomes the publication of the *Nutritional Guidance for Early Years* as a tool to enhance registered childminders understanding of the need to provide appropriate healthy meals to children in their care. This resource complements *Adventures in Foodland*, introduced to our membership last year. Registered childminders have an important role to play in encouraging and introducing healthy choices within their childcare setting. The key task will be accessing training opportunities for childminders to allow them to turn this guidance into practice.”**

Elizabeth Murdoch, Head of Childminding Practice Development, SCMA

**“The Care Commission fully supports the Scottish Executive’s healthy eating initiative. We intend to help encourage healthy eating through our inspection programme for next year. We will ask childcare providers and childminders whether they have the guidance and how they are using it. We will encourage service providers to improve practice by using the guidelines. We will report on what we find.”**

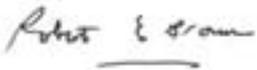
Ronnie Hill, Director of Children’s Services Regulation, Care Commission

## Foreword

The Scottish Executive is committed to ensuring that every child in Scotland has the best possible start in life. Making sure that our youngest children have healthy, nutritious diets is an important part of that commitment. We know that many early years settings already work hard to provide healthy food to the children in their care. This guidance will help them do that.

Improving the country's diet is a key part of making people in Scotland healthier. Encouraging young children to eat healthily not only helps their growth and development as children, it also establishes good eating habits for life. We want to help young children to enjoy a healthy diet, and nurseries, childminders and other childcare providers have a major role to play in this.

We would like to thank all the colleagues, from a range of professional backgrounds, who provided their views and advice in the consultation process. In particular we wish to thank the Working Group for all their expertise, hard work and enthusiasm.



Robert Brown



Lewis Macdonald



# 1 Introduction and background



## 1.1 Why is this guidance needed?

Good nutrition in the early years is vital. Children's early experiences of food play an important part in shaping later eating habits, and good eating habits support healthy growth and development. Giving positive messages about food in the early years setting will also help to stress the importance of a good diet to children's families.

As someone working in early education, you will recognise the importance of giving children a nutritionally balanced diet – and that you are in a position to make a difference. This guidance has been produced to support you in meeting children's nutritional needs in the early years. It is evidence based (meaning that it is practical advice based on nutritional research) and sets out the nutritional requirements for children aged 1 to 5, providing practical advice on how to ensure that these requirements are met.

Throughout, references to other useful publications and resources are indicated by a numbered note marker (e.g. *Fun First Foods*<sup>3</sup>). These resources are listed in full in Appendix 9.

## 1.2 What is this guidance for?

It will help you to work towards the quality of service described in the *National Care Standards – Early Education and Childcare up to the Age of 16; Standard 3 Health and Wellbeing*:<sup>1</sup>

National Care Standard 3 – *Each child or young person will be nurtured by staff who will promote his or her general wellbeing, health, nutrition and safety.*

It is especially relevant to National Care Standards 3.3 and 3.4:

National Care Standard 3.3 – *Children and young people have opportunities to learn about healthy lifestyles and relationships, hygiene, diet and personal safety.*

National Care Standard 3.4 – *Children and young people have access to a well-balanced and healthy diet (where food is provided) – which takes account of ethnic, cultural and dietary requirements, including food allergies.*

## 1.3 Who is this guidance for?

The guidance is for providers of childcare for children aged 1 to 5 years who provide food (including snacks) and/or drinks. It will apply to a wide range of providers, including local authority nurseries, private nurseries, playgroups, childminders, toddler groups, crèches, school meal services and family centres, regardless of the length of time that children are being cared for.

We do not address the needs of children from birth to 1 year here. Nutrition in the first 12 months of a child's life is crucially important and is covered in detail in *Off to a Good Start*,<sup>2</sup> *Fun First Foods*<sup>3</sup> and *Adventures in Foodland*,<sup>4</sup> all available from NHS Health Scotland.

Parents and other carers need to know about this guidance and what they can expect their child to receive in terms of food and drink.

## 1.4 Links with other resources

The information in this guidance reflects that in *Adventures in Foodland*,<sup>4</sup> which is very comprehensive and provides background information on nutrition, dental health and physical activity for carers of children under 5, as well as a series of ideas for practical activities with food. This guidance complements *Adventures in Foodland*<sup>4</sup> by making the links between practical food choices and achieving the specific nutrition guidance for children.

At a local level, there are many resources designed to improve nutrition in the early years, some of which will be useful in helping to put the guidelines into practice. To find out about these, contact your local authority's early years department.

## 1.5 Putting policy into context

Improving children's health is the collective responsibility of parents, guardians, early years staff and carers, and health professionals.<sup>5</sup>

It is also an important priority for the Scottish Executive and this is where you can help. The strategy *Improving Health in Scotland – the Challenge*<sup>6</sup> identifies the early years as one of the four key areas for health improvement, as well as putting special focus on diet and physical activity as a way of achieving this. *Eating for Health: Meeting the Challenge*,<sup>7</sup> another strategy paper, recommends that we need nutritional guidance for the pre-school sector if we are to improve children's health.

Other important documents in this area are the *Curriculum Framework for Children 3 to 5*<sup>8</sup> and *National Care Standards – Early Education and Childcare up to the Age of 16*.<sup>1</sup> This guidance aims to help you work towards these standards. Increasing the rate of improvement in the health of people living in the most deprived areas of Scotland is a key objective of the Scottish Executive's approach to tackling poverty and disadvantage (see *Closing the Opportunity Gap*<sup>9</sup>). Improving diet and nutrition will benefit everyone in Scotland but the most disadvantaged groups, including children living in poor families, will benefit the most.





## **2 Eating habits, nutrients, foods and menu planning**



A varied and nutritious diet and regular physical activity are very important to ensure healthy growth and development in young children.<sup>10,11,12</sup> In the short term, they not only improve growth but also improve concentration and support children's learning.<sup>10,13</sup> There are longer term health benefits as well, as poor eating habits in childhood can lead to the development of obesity<sup>14</sup> and anaemia as a result of iron deficiency.<sup>13,15</sup> Even more importantly, a good diet in childhood can help to prevent the risk of serious diseases common in later in life,<sup>15,16</sup> such as cancer, cardiovascular disease, diabetes and osteoporosis.

## 2.1 Developing good eating habits

*National Care Standard 3.3*<sup>1</sup> requires that children and young people have the opportunity to learn about healthy lifestyles, including a healthy diet. This covers a number of points:

- **Encourage children to experiment:** offering a variety of foods and repeatedly introducing new foods from an early age encourages children to experiment and accept different tastes and textures.<sup>17</sup>
- **Plan snack and meal times:** we already know that young children need to have structure to their day and this applies to planning times for eating and drinking. Children differ in their responses to food being made available: most children enjoy food and usually welcome an opportunity to take a snack or drink when they are hungry or thirsty. However some children are less interested, may be distracted while playing and can 'forget' or be 'too busy' to choose to eat or drink. This can result in children becoming 'over' hungry or thirsty, leading to difficult behaviour. Therefore, it is important to organise snack time so that every child has a chance to eat and drink. Snack time provides an excellent opportunity for children to: practise personal hygiene by washing their hands before eating/drinking; learn about healthy snacks and drinks; and learn to try new foods and chat to staff about their likes and dislikes. Children are more likely to try new foods if they see other children eating them. For all these reasons, a timetabled snack time, supervised by staff to ensure that every child's needs are met, is regarded as current best practice.
- **Allow plenty of time:** give children enough time to finish eating and drinking – once they have started to eat, this may take around 15 minutes for a snack and 30 minutes for a meal. Children need to eat regularly and it is recommended that they be offered something to eat at least every 3 hours. Snacks are best given well before or after meal times to avoid spoiling the appetite for the next meal.
- **Develop social skills:** when children sit down together to eat and drink this provides an excellent opportunity for them to learn good social skills and behaviours associated with eating and drinking. For example: chatting to other children and adults, developing good table manners, offering and sharing food, learning to respect others, tasting and trying foods from different cultures. Try to avoid distractions such as television and lots of noise.
- **Provide good role models:** children often model their behaviour on others. Therefore, encouraging good food choices and eating habits in the adults, brothers and sisters, and friends around children is important in reinforcing the right messages.

Further information and activities for building positive eating habits is provided in *Adventures in Foodland*.<sup>4</sup>

## CASE STUDY

### Snacking Together at Ladywell Nursery School

Ladywell Nursery School used to run an 'open snack' system, however staff were concerned that some children were not keen to have a snack while others were limited in the foods they would try. Issues around hygiene, e.g. children washing their hands properly and the use of utensils to serve food, were also raised. It was decided that, for a trial period, snack time would be a group activity with an early years worker sitting with each group of children. Snack items were set on a tray which was taken to the group table where the children helped to prepare and serve the snack. This new way of approaching snack time was so successful that it has now been adopted as permanent practice and staff have highlighted a range of benefits:

- Development of social skills through interaction and co-operation with others, e.g. taking turns.
- Development of language skills as children and adults talk together about what they are eating, foods they like to eat and health issues including toothbrushing and handwashing.
- Children are more easily encouraged to try new foods and can see what the whole food looks like before helping an adult to prepare and serve it.
- Staff are more aware of what children are eating and can share this information with parents.
- Children can make suggestions for foods to be included in the snack menu.
- Staff can observe children closely, gathering information for their profiles in several areas of development.

Overall, snack time is now less stressful for the children and both children and adults enjoy it!

## 2.2 Foods and nutrients

### *Energy needs: getting the balance right*

Children need energy to enable them to grow and develop and be active. Essentially, energy from food and drink provides 'fuel' for the body. Energy comes from foods containing carbohydrate, fat and protein. The precise amount of energy required for an individual child depends on their age, size, gender, rate of growth and level of activity.

For good health and optimal growth, it is important to get the balance right between energy consumed in food and energy expenditure.<sup>14</sup> Children who are regularly active (see section 3.4) are able to achieve a better energy balance than children who are less physically active.<sup>14</sup>

### *Dietary fibre*

Dietary fibre as part of a varied, balanced diet is essential for good health at all ages. Although there are no specific dietary recommendations for children aged 1 to 5 years, children who follow the 'five-a-day' guidance on fruit and vegetable intake and who have some wholegrain foods, e.g. wholegrain bread, cereals and pulses (e.g. peas, beans, lentils), incorporated into their daily diets will have an adequate intake of dietary fibre to maintain good health as they grow.

## **Vitamins, minerals and bioactive components**

These are essential for growth, development and normal body functions. Some vitamins and minerals are important for the immune system to protect against ill health and disease. Children aged 1 to 5 have a high requirement for vitamins and minerals because of the rapid rate of growth and bone development during these years. An adequate intake of vitamins and minerals will be provided by a varied well-balanced diet, as described in the guidance. Vitamin D is the one exception to this: obtaining adequate vitamin D depends on getting enough sunlight and/or taking supplements (see Appendix 2).

There are some compounds in foods (bioactive components) that do not fall into the categories of vitamins and minerals or nutrients, e.g. lycopene and flavonoids. Some of these compounds help to protect against ill health and disease. Vegetables, some fruits and other plant foods such as fresh herbs are particularly good sources of these.

Further guidance on the role of nutrients and key sources of nutrients are provided in *Adventures in Foodland*.<sup>4</sup>

## **2.3 Menu planning and nutrient guidance**

### **Menu planning**

Menu planning is very important in achieving a well-balanced and healthy diet for the children in your care. It will also help you to work towards providing the quality of service described in *National Care Standard 3.4*.<sup>1</sup>

Menu planning should be done by a member of staff with the knowledge and skills and an understanding of children's differing nutritional needs. The menu planning guidance set out below should be used to help produce a written menu covering all food provided, i.e. meals, snacks and drinks.

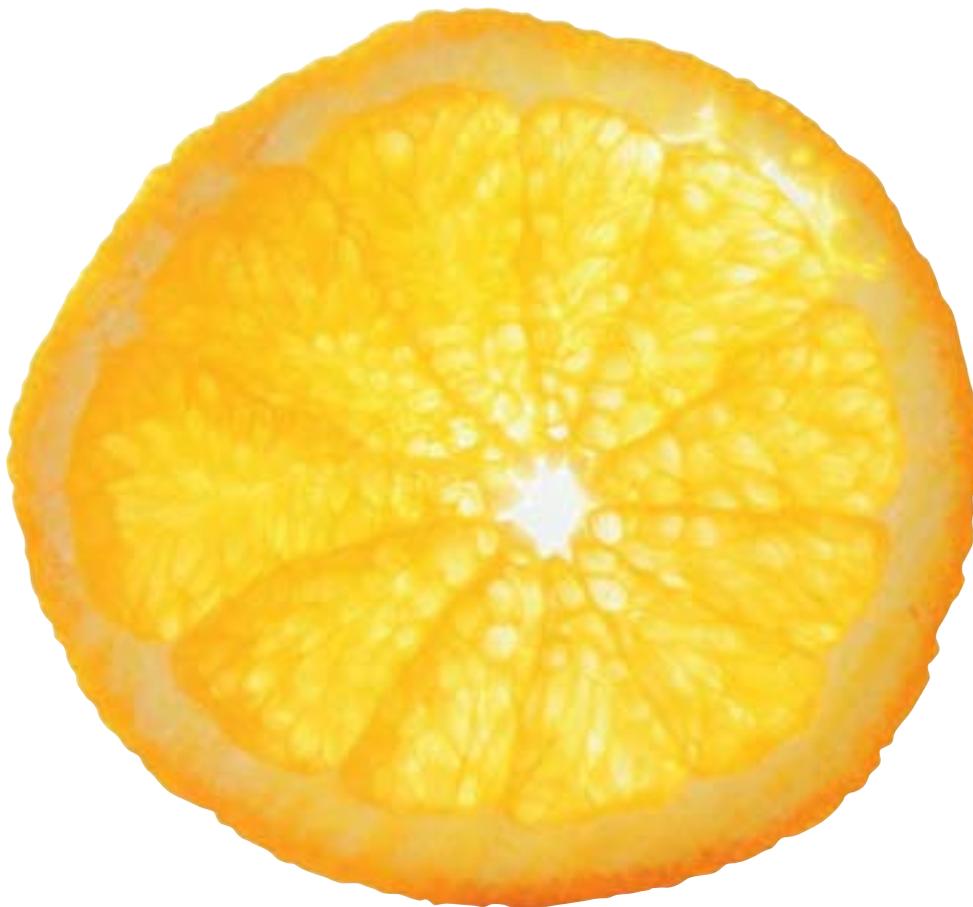
Young children have changing likes and dislikes and their appetite and willingness to try new foods varies. Different foods and portion sizes may need to be interchanged as breakfast, snacks, light meals or main meals. This need for flexibility to allow for changing eating habits has been taken into account in the guidance on food groups and menu planning. Children's cultural background should also be acknowledged and any special dietary requirements included in planning meals and snacks, as reflected in *National Care Standards – Early Education and Childcare up to the Age of 16; Health and Wellbeing Standard 3.4*.<sup>1</sup>

In planning a menu it is important to include a variety of sensory qualities, e.g. taste, texture, flavours, colours and temperature. This will help children's learning and enjoyment of food. Early and repeated exposure to a food also helps children to accept it and learn to like it in the long term.<sup>17</sup>

In the food groups and sample menus that follow, descriptions of foods and the frequency of serving are given only as a guide towards meeting the nutritional guidance. A flexible approach, building on catering experience, skills and local tastes, will allow a wide range of food and menu options to be used. The menu planning guidance is based on the five food groups (see *Adventures in Foodland*<sup>4</sup> for further information).

It is important to ensure that all food is stored and prepared safely. For the most up-to-date information on food safety and hygiene for the early years see the Food Standards Agency's Eatwell website ([www.eatwell.gov.uk](http://www.eatwell.gov.uk)).<sup>18</sup> It is packed with reliable and practical advice about healthy eating, understanding food labels and how what we eat can affect our health.

The Food Standards Agency has also developed specifications for the quality of processed foods to be used in school meals,<sup>19</sup> which may be useful for foods used in catering for the early years sector.



| Menu Planning by Food Group  |  |  |
|--|--|--|
| Group 1: Bread, Other Cereals and Potatoes   | Guidance for Children aged 1-5 years   | Why?   |
| <p>All types of breads, other cereals (breakfast cereal, oats/oatcakes, rice, pasta, noodles, couscous, maize meal), potato and starchy root crops (e.g. sweet potato, yam), green plantains</p> | <p>Every meal and most snacks should contain a portion or portions of food from this group.</p> <p>Early introduction to wholegrain cereal foods helps children to accept these as a regular part of their diet.</p> <p>Fibre-enriched cereals (i.e. breakfast cereals with added bran) should not be offered to children under 2 years.</p>   | <p>Starchy foods provide essential energy for children and are an important source of many vitamins, minerals and fibre. Encourage children to eat these foods to satisfy their appetites.</p> <p>Wholegrain/wholemeal bread, wholegrain cereals (e.g. wheat biscuits, mini wheats, porridge), pasta and brown rice, as well as the white varieties, should be offered to encourage children to enjoy these as part of a varied diet.</p> <p>Young children have small stomachs and too many foods with added fibre such as fibre-enriched (bran-type) breakfast cereals (e.g. All-Bran, Branflakes, raw bran) can replace energy-rich foods needed for growth and interfere with the absorption of essential minerals such as calcium and iron.</p> |
| <p>Bread</p>   | <p>A variety of breads: wholegrain/wholemeal, brown, white, bread-based snacks (e.g. yeast-type buns, scones) should be available daily as part of a meal and/or snack for all children. Crusty bread, quarters of bread rolls and buns are popular and can be offered at snack or meal times.</p> <p>As part of a meal, bread (including naan, pitta and crusty bread) can be provided in a variety of forms.</p> | <p>Bread provides for the varying appetites and energy requirements of young children.</p> <p>These provide variety and make the diet more interesting.</p>  |

| Menu Planning by Food Group                |   |
|--|---|
| Group 1: Bread, Other Cereals and Potatoes | Guidance for Children aged 1-5 years  |
| Breakfast cereals                          | <p>Breakfast cereals may be offered at breakfast or snack time. A variety of low-sugar breakfast cereals, e.g. wheat biscuits, porridge, cornflakes, rice snaps, unsweetened puffed wheat, should be available. These breakfast cereals are low in added sugars<sup>a</sup> (most of these products contain less than 15% added sugars,<sup>a</sup> i.e. less than 15g per 100g). There are plenty of breakfast cereals with a low added sugar<sup>a</sup> content to choose from.</p> <p>Highly sugared cereals and cereal bars should <i>not</i> be offered (e.g. chocolate-coated cereals, frosted flakes, honey-coated cereals, cereals with sweet sticky bits). Many of these have a high added sugar<sup>a</sup> content of more than 15% (more than 15g per 100g of product). Low-salt varieties are also sometimes available.</p>   |
| Potatoes, sweet potatoes, yams             | <p>Fresh cooked potatoes should be served regularly in different ways: mashed, boiled, oven baked or as potato wedges or roast potatoes with a light coating of olive, sunflower or rapeseed oil.</p> <p>The following high-fat processed potato products should be served a <i>maximum</i> of once in a full 5-day menu: chips, smiley faces and other shaped products, processed croquettes and waffles.</p> <p>All processed potato products should be oven baked rather than fried.</p>   |
| Why?                                       | <p>Breakfast cereals are a popular food with young children; they provide energy, many vitamins, minerals and fibre. Many varieties are fortified with iron, folate and other nutrients, providing an important source of these in the diet. In addition, as they are usually eaten with milk, this provides further nutrients, such as calcium, phosphorus, protein, etc.</p> <p>Breakfast cereals with a high proportion of added sugars<sup>a</sup> provide a poor balance of energy for young children. Too much added sugar<sup>a</sup> leads to dental decay and obesity. Choose cereals that are lower in added sugars<sup>a</sup> and, where available, low in salt.</p> <p>Fresh cooked potatoes served in different ways provide a variety of textures. They are an excellent, high-quality source of energy and nutrients for children. They are rich in the B vitamins and an important source of vitamin C.</p> <p>Many of the high-fat potato products contain poor quality fat (hydrogenated fats) and are also high in salt. If eaten frequently, they can lead to an imbalance in energy and fat intake.</p> |

| Menu Planning by Food Group                |  |   |
|--|--|---|
| Group 1: Bread, Other Cereals and Potatoes | Guidance for Children aged 1-5 years   | Why?  |
| Rice, pasta, noodles, couscous             | <p>These foods are popular with young children and should be provided regularly as alternatives to bread and/or potatoes. Wholegrain varieties are suitable for all children. They may be enjoyed as part of hot or cold dishes, in soups and combined with vegetables. There is no need to add salt when cooking foods from this group.</p> <p>Processed pasta and rice products (e.g. noodles in a pot, savoury rice in a bag and tinned spaghetti hoops in sauce) tend to have a very high salt content.</p> <p>Manufacturers are working to produce lower salt versions, so if canned spaghetti and similar products (e.g. spaghetti hoops, pasta shapes) are used, choose the reduced salt varieties.</p> | <p>These foods are a good source of carbohydrate energy and B vitamins. They provide a variety of textures and tastes for young children. Wholegrain varieties of rice and pasta are higher in B vitamins than the white varieties.</p> <p>These processed products are mostly very high in salt and if eaten regularly they will contribute to a high-salt diet.</p> |

| Menu Planning by Food Group   |  |   |
|---|--|---|
| Group 2: Fruits and Vegetables  | Guidance for Children aged 1-5 years   | Why?  |
| Fresh, frozen, canned and dried varieties of fruits and vegetables and fruit juices | <p>Every meal should contain a minimum of between one and two child-sized portions from this group (see Appendix 4).</p> <p>The snack and meal combinations should provide a variety of vegetables and fruits. Children may prefer raw vegetables (e.g. cucumber, tomato, carrots, celery).</p> <p>They may find them easier to eat if served cut up into small portions (e.g. chopped apple and satsuma segments). Offering them repeatedly may improve acceptance.</p> <p>Offering fruit and raw vegetables (e.g. chopped apple, chopped cucumber) at the beginning of the meal, or as a snack, may help to improve uptake.</p> <p>Tinned fruit should be in fruit juice or natural juice and not in syrup.</p> <p>Choose tinned vegetables in water with no added salt.</p> | <p>Fruit, vegetables and salads are rich sources of vitamins, minerals and other bioactive components, which protect children from ill health. This protection begins early and continues throughout life.</p> <p>They also provide an excellent combination of fluid and fibre to help prevent constipation in young children.</p> <p>Offering these colourful foods with a variety of tastes and textures stimulates children's interest in fruits and vegetables as well as challenging their palates.</p> <p>The introduction of a variety of fruit and vegetables at a young age may improve consumption throughout life. This will help to meet the recommendation of five portions a day.</p> <p>Offering raw chopped fruits and vegetables at the beginning of a meal when children are most hungry and 'waiting' for their food is an excellent way to get them to eat more foods from this group.</p> <p>Tinned fruit in syrup has a high added sugar<sup>a</sup> content, which contributes to tooth decay.</p> <p>Many tinned vegetables are in brine, which is salted water.</p> |

| Menu Planning by Food Group                                      |  |  |
|--|--|--|
| Group 2: Fruits and Vegetables                                   | Guidance for Children aged 1-5 years   | Why?   |
| Vegetables (green and salad vegetables, root vegetables, pulses) | <p>Serve vegetables so that they are appealing and user-friendly. They may be popular cold, raw, as finger foods, served with fruit in salad or incorporated into main dishes.</p> <p>Fresh soups with vegetables are an excellent way of including pulses and vegetables in a meal. There should be a <i>minimum</i> of one portion of vegetables in each serving of soup.</p> <p>Most dried and tinned soups are very high in salt and some have a low vegetable content. Avoid these foods as they make it difficult to meet the nutrient guidance for sodium (salt).</p> <p>Baked beans are nutritious and popular with children; when serving them, choose lower salt versions.</p> <p>Canned spaghetti and similar products, e.g. spaghetti hoops, pasta shapes and tomato ketchup, are <i>not</i> vegetables and therefore do not count as a portion.</p> | <p>Vegetables are essential for a balanced diet. They contain unique protective components that are not found elsewhere in the diet. Be creative to encourage young children to consume them on a daily basis. Some children prefer vegetables raw as finger food or incorporated into dishes raw rather than served in the traditional way.</p> <p>It is not uncommon for canned spaghetti or pasta shapes in sauce to be mistaken for a serving of vegetables.</p> |

| Menu Planning by Food Group    |   |   |
|--------------------------------|---|---|
| Group 2: Fruits and Vegetables | Guidance for Children aged 1-5 years  | Why?  |
| Fruit                          | <p>Fruit should be offered with every meal and most snacks. Fruit-based desserts, such as fresh fruit, tinned fruit in juice, fruit salads, fruit crumble, fruit jelly or fruit pie, are popular options for young children. These composite fruit dishes should contain a <i>minimum</i> of one portion of fruit per serving.</p> <p>Most fruit yoghurts provide less than one portion of fruit and therefore fresh fruit should be offered <i>in addition</i> to fruit yoghurt.</p> <p>Pure fruit juice is a good source of vitamin C. A small glass or cup of pure unsweetened fruit juice, taken as part of a meal, provides enough vitamin C for the day. Fruit juice should be given only at meal times.</p> <p>Dried fruit is an excellent source of nutrients but because of its high sugar content should be given at meal times only.</p> | <p>There are many fruit-flavoured sweet products on the market, many of which contain little or no fruit but are simply flavoured to resemble fruit. Make sure that fruit desserts have a high proportion of real fruit so that they contribute to overall daily fruit intake.</p> <p>Fruit juice is high in added sugars<sup>a</sup> and acidic, and drinking juice alone (i.e. not as part of a meal) contributes to tooth decay. Fruit juice and other drinks should always be served in a cup or glass (with or without a straw) rather than from a bottle.</p> <p>Dried fruit has a high nutritional value and is a good food for children to learn to enjoy. However, as it sticks to teeth and can cause dental decay, it should be provided at meal times only.</p> |

| Menu Planning by Food Group                            |   |   |
|--|---|---|
| Group 3: Milk and Dairy Foods                          | Guidance for Children aged 1-5 years  | Why?  |
| Milk and dairy foods, yoghurts and milk-based desserts | All meal and snack combinations should contain a portion or portions of food from this group. | <p>In children aged 1-3 there is rapid development of the teeth and bones as they grow and move around more independently. Calcium, vitamin D, phosphorus, protein and other minerals are essential for this stage of development and are particularly well absorbed from milk and milk products.</p> <p>Milk and milk products provide a rich source of some of these nutrients. Diets that do not include any milk and dairy foods are unlikely to meet the calcium requirements for young children. If a child does not have these foods (e.g. is vegan), parents/guardians should seek advice from a health professional to make sure that there is adequate calcium in the diet.</p> |

| Menu Planning by Food Group   |   |   |
|-------------------------------|---|---|
| Group 3: Milk and Dairy Foods | Guidance for Children aged 1-5 years  | Why?  |
| Milk                          | <p>Plain drinking milk should be available as an option every day. Some children may still be having breast milk at and beyond the age of 1 year. For 1 year olds, who are not being breastfed, whole cows milk should be the main milk drink until the child is at least 2 years old. From age 2, semi-skimmed milk can be introduced as long as the child is eating well and getting enough energy and nutrients from a varied diet. Fully skimmed milk is not suitable as a main milk drink for children under 5 years. From 5 years old fully skimmed milk can be used.</p> <p>Where only one type of milk is available (e.g. in the nursery setting), whole milk should be provided.</p> <p>Drinking milk should be an accompaniment to meals and snacks and not a replacement for them.</p> <p>Plain milk should be provided. Flavoured milks are unsuitable because of their high sugar content.</p> | <p>Milk provides essential nutrients and fluid in a readily available form. Whole milk is also an important source of energy for young children. Low-fat skimmed milk contains insufficient energy and fat-soluble vitamins for children aged 1-5 years.</p> <p>Occasionally a child will get into the habit of drinking large amounts of milk (more than 500ml per day) instead of eating other foods. This may happen after a period of illness simply because the child refuses to eat solid food. Young children who persistently drink large amounts of milk rather than eating will have a diet that is deficient in energy and other nutrients, e.g. iron and B vitamins.</p> <p>Flavoured milks are high in added sugars and can cause tooth decay. They are also very sweet and encourage a 'sweet tooth'.</p> |

| Menu Planning by Food Group   |   |
|-------------------------------|---|
| Group 3: Milk and Dairy Foods | Guidance for Children aged 1-5 years  |
| Yoghurt                       | <p>Yoghurt is very popular with children and there is a huge variety of fruit-based and fruit-flavoured yoghurts to choose from.</p> <p>Whole-milk/plain natural yoghurt/plain fromage frais does not have added sugar<sup>a</sup>. These are ideal options and can be served with fresh, stewed or frozen fruit, or fruit in natural juices.</p> <p>At meal times, choose whole-milk fruit yoghurt/fruit fromage frais that is low in added sugar<sup>a</sup>.</p> <p>Novelty yoghurts, e.g. cartoon-type, corner-type yoghurts with bits, mousses and yoghurts in a tube are mostly very high in added sugars<sup>a</sup>. Some contain crumbly and sticky substances (e.g. chocolate, fudge), which stick to the teeth and cause tooth decay. These should not be provided.</p> <p>Other dessert type foods for children in cartons like yoghurt may be more like sweets or chocolate and contain little milk or fruit. These should <b>not</b> be provided.</p>                                       |
|                               | <p><b>Why?</b></p> <p>Yoghurts can be an excellent source of calcium, protein, vitamin A and small amounts of vitamin D (whole-milk variety) and they are easy to eat.</p> <p>There is a huge choice of yoghurts on the market and it is often difficult to know which gives the best nutritional value. Some are less healthy than others: avoid those with sticky sugared bits like sweets.</p> <p>Plain yoghurt and plain fromage frais is the best option and can be taken as part of a snack or meal.</p> <p>Fruit-flavoured yoghurts containing low amounts of added sugars<sup>a</sup> are less harmful to teeth<sup>20</sup> than yoghurts high in sugars and those with sticky sweet bits.</p> <p>The sweetened sticky additions to many novelty yoghurts are harmful to children's teeth and can contribute to excess energy intake from sugar.</p> <p>Yoghurt should be eaten using a spoon and sweetened yoghurt should not be sucked from a tube as this is harmful to children's teeth.</p> |

| Menu Planning by Food Group   |   |
|-------------------------------|---|
| Group 3: Milk and Dairy Foods | Guidance for Children aged 1-5 years  |
| Cheese                        | <p>Cheese can be served as the main protein item instead of meat, fish or pulses.</p> <p>Cheese can be served as cheese and biscuits, cheese and fruit, as part of a salad or as a filling for sandwiches and baked potatoes, or sprinkled on top of pasta or rice dishes. A suitable small portion of hard cheese for a young child is around 20-25g.</p> <p>Cottage cheese makes a nice change from hard cheese and can be served in a larger portion of 40-50g.</p> <p>Cheeses suitable for vegetarian children should be available.</p>   |
|                               | <p><b>Why?</b></p> <p>Cheese is a concentrated source of calcium and other minerals. The protein and mineral content may also help to promote dental health.</p> <p>Where a portion of cheese is served as the main protein item, it also counts as a portion of food from the meat, fish and alternative sources of protein food group.</p> <p>Most hard cheeses and full-fat soft cheeses, though good foods, are high in saturated fat, so stick to the portions recommended to avoid excess intake.</p> <p>Vegetarian children will not take cheese that contains rennet as it is an animal-based ingredient.</p> |

| Menu Planning by Food Group   |  |  |
|---|--|--|
|   | Guidance for Children aged 1-5 years   | Why?   |
| Group 4: Meat, Fish, Eggs, Pulses, Seeds and Nuts                     |  |  |
| Meat, fish and alternatives, e.g. eggs, peas, beans, lentils and nuts | Every main meal should contain a portion or portions of food from this group.  | Meat, fish and alternatives such as eggs, beans and pulses are a major source of protein, iron and zinc. These help to promote growth in children. Most children living in the UK have more than adequate amounts of protein in their diet.  |
| Beef, pork, lamb and poultry  | Red meat (beef, pork and lamb) -based meals should be served a <i>minimum</i> of twice a week.<br><br>Lean meat (fat trimmed off) should be used in composite dishes.  | Red meat is the best source of iron and a major source of zinc. Lean meats are higher in protein, iron and zinc than meats with a high fat content.<br><br>This will help to improve the nutritional quality of meat used in recipes such as spaghetti bolognese, casseroles and stews.  |
| Processed meat products and pies                                      | Processed meat products, i.e. hot dogs, frankfurters, sausages, processed beef burgers, and meatballs, haggis and shaped poultry products (e.g. nuggets), pastry-topped pies and other pastry products (e.g. bridies, sausage rolls, Cornish pasties, Scotch pies) should be served a <i>maximum</i> of once a week.<br><br>The vegetable content of composite dishes such as homemade pies should be increased where possible. Potato-topped pies should be encouraged in preference to pastry-topped pies because of their lower fat content. Do not add salt. | Processed meat products are mostly high in fats and salt. The quality of fat may be unhealthy (high in saturated and hydrogenated fats) and the quality of protein poorer than in fresh or frozen leaner meats. Also they may be lower in iron and zinc than lean meats.<br><br>Using potato in a pie provides energy and varies the texture of a composite dish while also adding more nutrients, e.g. vitamins and minerals. |

| Menu Planning by Food Group                       |   |   |
|---|---|---|
| Group 4: Meat, Fish, Eggs, Pulses, Seeds and Nuts | Guidance for Children aged 1-5 years  | Why?  |
| Composite dishes                                  | <p>These dishes, e.g. lasagne, moussaka, spaghetti bolognese, tuna pasta bake, ravioli, etc., should contain lean meats, small amounts of cheese and plenty of vegetables. Always increase the vegetable content whenever possible and do not add salt.</p> <p>When fat is used in cooking or in dishes, use a vegetable oil high in monounsaturated or polyunsaturated fat, e.g. olive oil, rapeseed oil, sunflower oil or safflower oil.</p>                                  | <p>Vegetables can be easily incorporated into these dishes or cold salad items (cucumber, tomato, lettuce, celery and carrot) can be served alongside as finger foods. This will help to increase the vegetable intake.</p> <p>Vegetable oils high in monounsaturated and polyunsaturated fats improve the type of fat in the diet.</p>   |
| Fish  | <p>Fresh or frozen unprocessed fish, in addition to tinned tuna, should be on the menu <i>at least once</i> in a full 5-day menu.</p> <p>Oil-rich fish: sardines, kippers, salmon, mackerel, fresh tuna and herring (excluding tinned tuna) should be served <i>at least once</i> in a full 5-day menu.</p> <p>Processed fish products, e.g. fish fingers and shaped fish products, may be high in salt and should be served <i>no more than once</i> in a full 5 day menu.</p> | <p>This will provide variety. Tinned tuna fish is lower in protective fatty acids than other types of oily fish. This does not apply to fresh tuna.<sup>21,22</sup></p> <p>Oil-rich fish contain valuable, protective fatty acids that are deficient in the Scottish diet so we need to increase their intake. Oil-rich fish are also one of the few naturally rich sources of vitamin D. Many children are not familiar with these foods and should be encouraged to try them by introducing tasters (e.g. sardines on toast).</p> <p>Many of these products are high in salt, although manufacturers are starting to produce varieties with a lower salt content.</p> |

| Menu Planning by Food Group   |   |  |
|---|---|--|
| Group 4: Meat, Fish, Eggs, Pulses, Seeds and Nuts   | Guidance for Children aged 1-5 years  | Why?   |
| Chopped nuts, nut pastes and nut/seed pastes  | <p>Nuts should not be given whole to children aged 1 to 5 years as there is a risk of choking.</p> <p>Chopped nuts and nut pastes can be offered.</p>   | <p>Chopped nuts may be used in recipes.</p> <p>These are a good source of energy, protein and minerals.</p> <p>You will need to be careful with children who may have a nut allergy (see section 3.7).</p>   |
| <p>Vegetarian sources of protein (see section 3.5 for more details about vegetarians)</p> | <p>Protein sources for vegetarians include: pulses, seeds, chopped nuts, seed/nut pastes, eggs, cheese, yoghurt, tofu and soya mince. These should be varied through the week.</p> <p>Soya mince, textured vegetable protein (TVP), quorn and tofu can be substituted for mince and chicken in main composite dishes, e.g. spaghetti bolognese, casseroles, stir-fries.</p> <p>Processed vegetarian products resembling meat products, e.g. sausages and veggie burgers should be served <i>no more than once</i> a week.</p> | <p>These should be the main sources of protein for vegetarians. The protein content of vegetarian dishes is often lower than in meat dishes. However, vegetarians can get sufficient protein from these dishes along with the other sources of protein in their diets, e.g. cereal protein, milk products. Pulses, including beans, lentils and peas provide excellent nutrition, including protein. They are very versatile foods for quick light meals and as ingredients in soups and casseroles. Pulses can be an alternative to a portion of meat, fish, eggs or cheese. This increases the variety for vegetarians.</p> <p>Many meat substitutes are similar in texture to meat and may not appeal to children who do not like meat. Also, some may be high in salt.</p> <p>Processed vegetarian products are mostly high in fats and salt. The quality of fat in some of them is unhealthy (hydrogenated fats).</p> |

| Menu Planning by Food Group   |  |  |
|---|--|--|
| Group 5: Foods High in Fat and Drinks High in Added Sugars <sup>a</sup>   | Guidance for Children aged 1-5 years   | Why?   |
| <p>This group includes butter and spreads, cooking fats and oils, desserts, confectionery, cold and hot drinks, savoury snacks and bottled sauces</p> | <p>Within this group there are certain foods that make an important contribution to the diet of children, e.g. butter, spreads, cooking oils, fruit and milk desserts.</p> <p>Also within this group are foods that are high in added sugars<sup>a</sup> or poor quality fats and/or salt, e.g. soft drinks, sweets, chocolate confectionery, chocolate and cream-filled biscuits, sugary pastries, sugary desserts, highly sweetened cereals, sugary sticky yoghurts, corn snacks and crisps. These snack-type foods are often unhealthy and unnecessary.</p> <p>Bottled sauces are generally very high in salt and should not be encouraged as part of the meal.</p> | <p>Butter, spreads and oils contribute to the taste, texture and enjoyment of the diet. They are important as concentrated sources of energy for young children who are growing rapidly. Fruit and milk desserts offer good sources of vitamins and minerals and are a pleasant change from savoury foods.</p> <p>These foods are eaten too often by many children, especially if they have frequent and easy access to them. This contributes to a poor-quality diet, which can result in obesity, poor growth, tooth decay and general poor health. The over consumption of snack foods high in added sugar<sup>a</sup>, fats and salt is recognised as one of the major problems we have in Scotland.</p> |

| Menu Planning by Food Group   |   |   |
|---|---|---|
| Group 5: Foods High in Fat and Foods and Drinks High in Added Sugars <sup>a</sup> | Guidance for Children aged 1-5 years  | Why?  |
| Desserts: puddings, cakes, biscuits, jam, jelly and ice cream                     | All desserts offered should be fruit- and/or milk-based (including yoghurt and ice cream).  | <p>Desserts and puddings are popular and are important for boosting the total energy in children's diets but they should also provide nutrients. They can also help to increase fruit and milk intake.</p> <p>There are a wide range of these products marketed at children and we need to be careful to select those with a high milk and/or fruit content and low added sugars<sup>a</sup>.</p> <p>The portion size of home baking/bakery products is too big for young children, e.g. large muffins. Mini-portion sizes are much better and served along with fruit will improve the balance of the diet. Children enjoy the different tastes and texture this provides.</p> |
| Butter and spreads  | <p>Encourage caterers to review home-baking recipes to reduce fats and added sugars<sup>a</sup> and include nutrient-rich, wholefood ingredients, e.g. dried fruit/fresh fruits. Home-baking/bakery products can be offered in mini-portions (e.g. 25-35g) as an accompaniment to fruit as a dessert.</p> <p>Only butter or spreads rich in monounsaturated and polyunsaturated fats and oils should be used, e.g. olive, rapeseed, sunflower or safflower oil. These can be spread on breads and used in baking.</p> <p>Cooking margarines and low fat spreads of less than 40% fat are not recommended.</p> | <p>These provide an important source of energy, essential fats and fat-soluble vitamins for children. They help to achieve a healthy fat profile in the diet.</p> <p>Cooking margarines are high in hydrogenated fats. Young children rely on fat as a major energy source, low fat spreads are low in energy.</p>  |

| Menu Planning by Food Group   |   |   |
|---|---|---|
| Group 5: Foods High in Fat and Foods and Drinks High in Added Sugars <sup>a</sup>   | Guidance for Children aged 1-5 years  | Why?  |
| Cooking fats and oils   | Only those rich in monounsaturated and polyunsaturated oils should be used e.g. olive, rapeseed or sunflower oil.   | They provide an important source of energy and essential fats for children. They help to achieve a healthy fat profile in the diet.   |
| Sweetened soft (still and fizzy) drinks, sweets, confectionery, chocolate, ice-poles, sugary pastries, chocolate biscuits | Sweetened soft (still and fizzy) drinks, sweets, confectionery, chocolate, ice-poles, sugary pastries, chocolate and cream-filled biscuits should <i>not</i> be provided as part of the menu.<br><br>Sugary and/or fizzy drinks should not feature as part of pre-school children's diet as they are associated with tooth decay and can contribute to poor nutritional health and excessive weight gain (see section 3.3). | These foods are energy-dense because of their high added sugar <sup>a</sup> and/or high fat content. Many of them are of poor nutritional quality, providing little vitamins or minerals.<br><br>A regular high intake of these foods by young children will replace foods of higher nutritional quality and result in an imbalance in the total diet. This can result in obesity, iron deficiency and poor growth. As these foods are currently consumed in large amounts by Scottish children, we need to pay particular attention to guiding children and families to reduce over consumption. |
|   | Milk and plain water are suitable drinks for throughout the day and for between meals.<br><br>Fresh unsweetened fruit juice should be offered only at meal times. Juice should be drunk from a cup or glass and not from a bottle.  | Milk provides an important source of nutrition for young children. Water provides essential fluid and, along with fibre, helps to prevent constipation.<br><br>Fresh fruit juice should be distinguished from 'fruit drinks'. Fruit drinks often contain very little or no fruit juice at all and are often high in added sugars <sup>a</sup> and acids. Fruit juices are not suitable for drinking between meals because of their high sugar and acid content.   |

| Menu Planning by Food Group   |   |   |
|---|---|---|
| Group 5: Foods High in Fat and Foods and Drinks High in Added Sugars <sup>a</sup> | Guidance for Children aged 1-5 years  | Why?  |
| Savoury potato snacks, crisps and corn snacks                                     | Crisps can be offered as part of a snack or meal option as an alternative texture and taste, e.g. beside a filled sandwich or salad dish. However, they should not be provided as the main staple of the meal and should not be included more than twice on a full 5-day menu. For young children, this would be a small portion (e.g. 10-15g). | These are popular with children and can provide a change of texture and taste. They should not be regarded as replacing one of the main staple foods (i.e. breads, potatoes, rice, pasta or cereals). They are high in salt and so the portion size and frequency with which these foods are offered should be limited. |
| Table salt, bottled sauces, relishes and pickles                                  | Do not add salt to food during cooking or at the table.<br><br>Bottled sauces (e.g. ketchup) are popular with children and may be high in salt and sugar. They can be given occasionally in very small portions only at meal times (e.g. 5g).   | These foods contribute to excess sodium (salt) intake in young children. Eating them on a regular basis in large amounts can contribute to a high-salt diet.  |

<sup>a</sup> Added sugars: these are sometimes known as non-milk extrinsic sugars (NMES) or free sugars and are found in sweets, biscuits, soft drinks, breakfast cereals, table sugar, honey, and fruit juice. They are not found in plain milk or in foods such as fruit and vegetables.

## Nutrient guidance

The information in Appendix 1 provides guidance on providing adequate energy and nutrition for children aged 1 to 3 years and 3 to 5 years attending partial day care or pre-school education. The nutrient guidance is based on *UK Dietary Reference Values*,<sup>23</sup> which is an average reference value for groups of children and does not apply to individual children. As individuals, children have different energy and nutrient requirements depending on their age, gender, body size, rate of growth and level of activity.

For young children, there are no hard and fast rules about what must be served as a breakfast, a snack, a light meal or a main meal. Depending on likes and dislikes, their appetite and their willingness to try foods, food items can be interchanged for snacks, meals or breakfast. For this reason, nutrient guidance has been given for one meal, including drinks (Appendix 1, Table 1) and also for the combination of one meal and one snack (Appendix 1, Table 2). Some children receive only a snack and drink while in nursery, so suitable snacks and drinks for children aged 1 to 5 are listed in sections 3.2 and 3.3.

The nutrient figures in Table 1, Appendix 1, represent the recommended nutrient intake provided by one meal averaged over 5 days. A period of 5 days is used because nutrient requirements are generally met over a period of time, rather than within one day. This would apply, for example, to the meals (e.g. lunch) provided to children aged 1 to 5 years who are in early years care.

Table 2, Appendix 1, represents the recommended nutrient intake provided by one meal and one snack averaged over 5 days. This would apply, for example, to a combined meal and snack (e.g. morning snack and lunch) provided for children who are in early years care.

There are some key issues about nutrient provision to consider when menu planning. These are detailed in Appendix 2.

## 2.4 Example menus

The following menu has been designed to meet the nutrient guidance for 1 to 5 year olds averaged over a normal 5-day care-provision period. Each day's menu identifies all meals, snacks and drinks offered throughout the day (with the exception of plain water, which is assumed to be offered to children regularly throughout the day, including at meal times).

There are difficulties with achieving the dietary reference value for sodium (salt) for all children and for vitamin D for children aged 1 to 3 (Appendix 2). Two sets have been provided to demonstrate potential planning over a 10-day period. The following menus are examples only and are expressed in practical household measures. These are as follows: teaspoon (tsp = 5ml), dessertspoon (dsp = 10ml), tablespoon (tbs = 15ml) and a mug measures 300ml to the brim.

More accurate weights for each food item may be required and for this the example menus with weights of foods have been included in Appendix 3. The weighted menus are given for 1 to 3 years and 3 to 5 years separately to illustrate the food requirements for the different age groups.

Staff who are responsible for planning menus need to be supported by proper training and this is discussed further in section 4.4. They should also be encouraged to be creative in adapting menus to provide for children with special needs, therapeutic diets, religious requirements (Appendix 5) or vegetarian diets. Some alternatives for vegetarian choices have been provided as examples.

Some points to note when reading the example menus to follow are:

- Drinks
  - Only milk and plain still water are offered between meals.
  - Pure, unsweetened orange juice is provided only at meal times.
  - Where only one type of milk is available, whole milk will be used.
  - Water is provided in addition to, rather than as a replacement for, the milk included in the menus.
- Dried fruit is provided only at meal times.
- The spread used is monounsaturated or polyunsaturated.
- Sauces used in composite dishes, e.g. spaghetti bolognese, macaroni cheese, and soups are made from fresh ingredients and are not processed, ready-made varieties which are high in salt.

To check the quality of your planned menus, a menu checklist is included in Appendix 6.



**Menu 1: A 10-day menu for children aged 1 to 5 years with suggested portions in household measures**

| Day | Breakfast  | Mid-morning snack  | Lunch   | Mid-afternoon snack   | Tea  |
|-----|--|--|---|---|--|
| 1   | <p>2 tbs pure, unsweetened orange juice diluted with water<sup>a</sup></p> <p>porridge (<sup>1</sup>/<sub>3</sub>-<sup>1</sup>/<sub>2</sub> mug) served with milk</p> <p>1 small slice toasted wholemeal bread with spread<sup>d</sup> and jam</p> | <p>1 small glass of milk</p> <p>1 mini/medium Scotch pancake with spread</p> <p>1 tangerine</p>  | <p>spaghetti bolognese<sup>b</sup> (approx <sup>1</sup>/<sub>2</sub> mug spaghetti and <sup>1</sup>/<sub>2</sub> mug sauce) with added chopped carrot (1 baby carrot)</p> <p>3-5 tbs custard and apricots (2-5 stewed dried apricots)</p>                     | <p>1 small glass of milk</p> <p>finger food selection including:<br/> <sup>1</sup>/<sub>2</sub> small banana, fresh apple slices (<sup>1</sup>/<sub>2</sub> medium apple), served with 1-2 heaped tbs of plain yoghurt as a dip</p> | <p>grated cheddar cheese, (1-3 tbs) and tomato slices, (3 or 4) – sandwiched between 2 slices of toasted white bread with spread</p> <p>mandarin orange segments in juice (1-2 tbs) with 1 scoop of vanilla ice cream</p>    |
| 2   | <p>2 tbs pure, unsweetened orange juice diluted with water<sup>a</sup></p> <p>1-2 biscuits of Weetabix served with milk</p> <p>1 small slice toasted wholemeal bread with spread and jam</p>   | <p>1 small glass of milk</p> <p>finger foods selection including:<br/>           2-4 bread sticks<br/>           2-3 cheese cubes (1-1<sup>1</sup>/<sub>2</sub> tbs grated)<br/>           apple chunks (<sup>1</sup>/<sub>2</sub> medium apple)</p> | <p>1 mini/small wholemeal pitta bread filled with 1 or 2 thin slices of roast chicken,<sup>b</sup> 1 tbs of sweetcorn, 2 sliced cherry tomatoes, diced cucumber (1 cm piece)</p> <p>milk jelly (2-4 tbs) with 2 tbs chopped pineapple</p>                     | <p>1 small glass of milk</p> <p>mini fruit scone with spread</p> <p>1 plum</p>  | <p>small bowl of vegetable soup – (<sup>1</sup>/<sub>2</sub>-<sup>3</sup>/<sub>4</sub> mug served with 1 medium/thick slice of crusty white bread (with spread)</p> <p>3-5 tbs custard and peaches (2-3 slices)</p>          |
| 3   | <p>2 tbs pure, unsweetened orange juice diluted with water<sup>a</sup></p> <p>1 sliced hard-boiled egg<sup>c</sup> served with a small slice of toasted wholemeal bread with spread</p>  | <p>1 small glass of milk</p> <p>1 toasted teacake with spread</p>  | <p>1-1<sup>1</sup>/<sub>2</sub> large pork and beef sausage<sup>b</sup> (grilled) served with a small baked potato and 2 tbs baked beans</p> <p>2-3 dried apricots</p> <p><sup>1</sup>/<sub>2</sub>-1 tbs raisins</p>   | <p>1 small glass of milk</p> <p><sup>1</sup>/<sub>2</sub> small banana sliced</p> <p>1 dsp plain fromage frais</p>  | <p>chicken risotto<sup>b</sup> (<sup>1</sup>/<sub>2</sub>-1 mug) with 1-2 large sliced mushrooms</p> <p>apple crumble (2-3 heaped tbs) served with milk</p>  |
| 4   | <p>2 tbs pure, unsweetened orange juice diluted with water<sup>a</sup></p> <p>3-5 tbs cornflakes with milk and 1 dsp raisins</p> <p>1 small slice of toasted white bread with spread</p>   | <p>1 small glass of milk</p> <p>1 small banana or finger food selection, e.g. <sup>1</sup>/<sub>2</sub> banana and 4 grapes</p>  | <p>1 sliced hard-boiled egg<sup>c</sup> with wholemeal bread soldiers (1-1<sup>1</sup>/<sub>2</sub> slice bread), with spread</p> <p>rice pudding (<sup>1</sup>/<sub>3</sub>-<sup>1</sup>/<sub>2</sub> mug) with <sup>1</sup>/<sub>2</sub>-1 dsp sultanas</p> | <p>1 small glass of milk</p> <p>1 mini (or <sup>1</sup>/<sub>2</sub> large) muffin toasted with spread</p> <p>1 small slice of melon</p>  | <p>minced beef in gravy<sup>b</sup> (<sup>1</sup>/<sub>3</sub>-<sup>1</sup>/<sub>2</sub> mug) served with 2-3 tbs mashed potatoes and a spear of broccoli</p> <p>fruit cocktail in juice (<sup>1</sup>/<sub>3</sub> mug)</p> |

**Menu 1: A 10-day menu for children aged 1 to 5 years with suggested portions in household measures**

| Day | Breakfast  | Mid-morning snack   | Lunch   | Mid-afternoon snack   | Tea   |
|-----|--|---|---|---|---|
| 5   | 2 tbs pure, unsweetened orange juice diluted with water <sup>a</sup><br>1 1/2-2 tbs baked beans served with a toasted muffin with spread                                       | 1 small glass of milk<br>1/2-1 crumpet with spread<br>1/2-1 fresh peach   | 1-1 1/2 wholemeal rolls with spread and filled with 1-2 thin slices of ham <sup>b</sup> , 1/2 a sliced tomato, carrot sticks (1 baby carrot)<br>apple sponge pudding (2-3 tbs)                                    | 1 small glass of milk/water<br>1/2-2 slices of pineapple in juice served with 1-2 tbs of plain yoghurt  | 1/2-1 grilled salmon steak, basted with olive oil and served with 2 or 3 new potatoes and small portion green beans<br>1 small carton fruit fromage frais served with 3 or 4 strawberries |
| 6   | 2 tbs pure, unsweetened orange juice diluted with water <sup>a</sup><br>7-10 tbs puffed wheat served with milk<br>1 small/medium slice toasted white bread with spread and jam | 1 small glass of milk<br>finger food selection including:<br>6 sliced grapes (6 grapes), 1/3 small banana, melon (3 chunks) | lean beef stew <sup>b</sup> (1/2 mug) served with 2 or 3 boiled potatoes<br>boiled turnip and carrot (1 small)<br>fruit crumble (2-3 tbs) and custard (3-4 tbs)   | 1 glass of water<br>1 mini blueberry muffin<br>apple slices (1/2 small/medium apple)  | 1 medium/large slice of ciabatta filled with 3-4 tbs grated cheddar cheese and 3 slices of tomato<br>1/2-1 carton fruit yoghurt with 1/2 pear in juice                                    |
| 7   | 2 tbs pure, unsweetened orange juice diluted with water <sup>a</sup><br>porridge (1/3-1/2 mug) made with milk served with milk<br>1/2 slice toast with spread                  | 1 small glass of milk<br>1 mini plain scone (or 1/2 scone) with spread<br>1 tangerine                                       | 1 mini/small pitta bread filled with tuna <sup>b</sup> and 1-2 dsp sweetcorn mixed with 1-2 tbs plain yoghurt served with 2-3 sliced cherry tomatoes<br>milk jelly (2-4 tbs) topped with mandarin oranges (2 tbs) | 1 small glass of milk<br>finger food selection including:<br>carrot sticks (1 small), cucumber (1cm piece chopped) and 2-3 sliced cherry tomatoes<br>large cracker served with 2 tbs plain yoghurt as dip | spanish omelette <sup>c</sup> (1 egg) and 1 small baked potato<br>apple pie (1-2 tbs) with 1 scoop of vanilla ice cream   |

**Menu 1: A 10-day menu for children aged 1 to 5 years with suggested portions in household measures**

| Day | Breakfast  | Mid-morning snack   | Lunch   | Mid-afternoon snack  | Tea  |
|-----|--|---|---|--|--|
| 8   | <p>2 tbs pure, unsweetened orange juice diluted with water<sup>a</sup></p> <p>1 small glass milk</p> <p>1 small slice of toasted wholemeal bread with spread and topped with 1 rasher of grilled bacon and 3 or 4 slices of tomato</p> | <p>1 small glass of milk</p> <p>1 small/medium banana</p>   | <p>2 tbs pure, unsweetened orange juice diluted with water<sup>c</sup></p> <p>1-2 slices of crusty bread with spread and topped with 2 canned sardines<sup>b</sup> (mashed) and 3 slices of tomato chopped</p> <p>1 carton of fruit yoghurt with 6 chopped grapes</p> | <p>1 small glass of milk</p> <p>1 mini/small Scotch pancake with spread</p> <p>3 or 4 strawberries</p>   | <p>lentil soup (<math>1/2</math>-<math>3/4</math> mug)</p> <p>1 small slice wholemeal bread with spread, topped with 1-2 thin slices of cold roast turkey<sup>b</sup>, lettuce, 3 slices of tomato and 1-2 tsp cranberry sauce</p> |
| 9   | <p>2 tbs pure, unsweetened orange juice diluted with water<sup>a</sup></p> <p>porridge (<math>1/3</math>-<math>1/2</math> cup) made and served with milk</p> <p>1 small slice of toasted white bread with spread</p>                   | <p>1 small glass of milk</p> <p>1 mini/medium cheese scone with spread served with 3 sliced cherry tomatoes</p> | <p>mild chicken korma<sup>b</sup> (<math>1/3</math>-<math>1/2</math> mug) served with 2-<math>2\frac{1}{2}</math> tbs boiled rice and a slice of naan bread (<math>1/6</math>-<math>1/3</math> large naan)</p> <p>2 tbs fruit yoghurt</p>                             | <p>1 small glass of milk</p> <p>1 small banana or finger food selection: chopped banana, <math>1/2</math> apple and 1 oatcake</p>  | <p>1-2 mini wholemeal rolls with spread, filled with 1 sliced hard-boiled egg,<sup>c</sup> 2 slices of tomato and mustard and cress</p> <p>sponge pudding (2-3 tbs) and fruit cocktail (2 tbs)</p>                                 |
| 10  | <p>2 tbs pure, unsweetened orange juice diluted with water<sup>a</sup></p> <p>1 scrambled egg<sup>c</sup> served on a small/medium slice of toast with spread</p>  | <p>1 glass of water</p> <p>1-2 dsp of plain fromage frais</p> <p>1 fresh plum</p>                               | <p>vegetable lasagne (<math>1/2</math>-1 mug) served with 1 slice of garlic bread</p> <p><math>1/3</math>-<math>1/2</math> mug rice pudding topped with 1 heaped tbs of pureed apples</p>   | <p>1 small glass of milk</p> <p>1 or 2 crackers with cheddar cheese (<math>1\frac{1}{2}</math> tbs grated or <math>1/2</math>-1 matchbox size piece) and apple (<math>1/2</math> medium)</p> | <p>minestrone soup (<math>1/2</math>-<math>3/4</math> mug)</p> <p>1-2 slices of toasted white bread, with spread and topped with 1-<math>1\frac{1}{2}</math> slices ham<sup>b</sup> and a pineapple ring</p>                       |

a We suggest that pure, unsweetened orange juice is diluted about 50:50 juice to water throughout. However it can be served undiluted, or with a greater proportion of water to juice if a longer, more thirst-quenching drink is preferred.

b For vegetarian options for meat, fish and chicken the following can be used as substitutes: for beef stew, beef could be substituted with chickpeas or kidney beans; in bolognese, meat could be substituted with soya mince; cheese, hummus or egg could replace tuna; chicken could be substituted with lentils or chickpeas. Other suitable substitutes are veggie sausages, quorn, peanut butter, baked beans, cheese and bean burgers.

c Where fresh eggs are not used to avoid the risk of Salmonella, sliced hard-boiled eggs and scrambled eggs can be substituted with dried powdered egg.

d The spread used is monounsaturated or polyunsaturated – this applies to all references to ‘spread’ throughout the document.



## 3 Additional information



### 3.1 Oral and dental health for pre-school children

As a carer, you can work with young children and parents to help develop good oral and dental health habits.

Key messages for pre-school children to improve dental health include:

#### **Toothbrushing**

- Toothbrushing should begin as soon as the first teeth erupt.
- Children should brush their teeth twice a day using toothpaste containing 1,000 ppm fluoride. No more than a smear of fluoride toothpaste should be used for children under 2 years and a small pea-sized quantity for children 2 to 6 years.
- Children will need supervision with toothbrushing until they are 6 to 8 years old.

#### **Registering with a dentist**

- Children should be registered with a dentist no later than 6 months or as soon as the first tooth erupts. If parents have not registered their child with a dentist by the time they come to your care, ask them to do so.
- Children should have regular check-ups with a dentist.

#### **Diet**

- Choose foods low in added sugars. Foods containing any added sugars should be eaten only at meal times.
- Water and plain milk should be the only type of drink given between meals.
- Drinks should be given from a cup or glass, with or without a straw, and not from a bottle.

For further information on the prevention of tooth decay in pre-school children see *An Action Plan for Improving Oral Health and Modernising NHS Dental Services in Scotland*.<sup>24</sup>

### 3.2 Snacks

Children need a varied diet to ensure that they get all the nutrients they require for growth and development. Pre-school children often have small appetites and need regular meals with snacks in between (see section 2.1). Snacks should be nutritious and low in added sugars to prevent tooth decay.

There are some snack foods that can be harmful to children's health if they are eaten frequently. These include soft drinks, sweets, chocolate confectionery, chocolate and cream-filled biscuits, sugary pastries, sugary desserts, highly-sweetened cereals, and sugary and sugared sticky yoghurts.

These types of snacks should not be provided in the pre-school care setting. If they must be given to children, they should be eaten at meal times only.

### *Suggestions for nutritious snacks*

- Fruit: mouth-sized chunks, cubes or slices of apple, pear, satsuma, orange, banana, kiwi, melon, strawberries, sliced grapes, peaches and plums (for child-sized portions, see Appendix 4).
- Raw vegetables: carrot, pepper, celery, cucumber, sliced cherry tomato, red cabbage, turnip, radish, courgette, broccoli.
- Toast, breads, rolls, baps, French bread with a small amount of butter or spread; mini sandwiches with marmite, cheese, tuna, banana, salad or thin slices of meat; pitta bread pockets cut into small slices; plain or with spread, e.g. olive or sunflower oil spread.
- Bread sticks – on their own or with a dip or soft cheese; homemade pizza triangles.
- Oatcakes, rice cakes, crackers, crispbreads, melba toast: plain or with butter or spread, e.g. sunflower or olive oil spread.
- Natural yoghurt with fruit or fromage frais – on its own or as a dip.
- Muffins, plain, potato or cheese scones, crumpets, pancakes, plain buns, plain popcorn, low-sugar breakfast cereal.

Note: crisps or corn snacks, e.g. Quavers, Golden Lights, Wheat Crunchies, tortilla chips or Twiglets, can be offered as part of a snack or meal option as an alternative texture and taste, e.g. beside a filled sandwich or salad dish. However, they are high in salt and fat and therefore pre-school children should not be given them any more than twice a week (see section 2.3).

## CASE STUDY

### Happy Jack Project

The Happy Jack project is operated by Edinburgh Community Food Initiative (ECFI) and works with families with children between 4 months and 4 years through 12 Children and Family Centres in Edinburgh. The project provides children with over 1,600 portions of snack fruit and 2,400 pieces of fruit to take home every week free of charge. In addition, fruit stalls have been established within each centre to provide low-cost, good-quality fruit and vegetables to parents.

The project provides a 5-week healthy eating cooking course for staff and parents which covers issues such as reading food labels, shopping on a budget and increasing the family fruit and vegetable intake.

All centres have received the Pip Project Activity Pack, which was created by staff at ECFI and contains recipes, arts, crafts, songs, games and rhymes based on the most celebrated seasonal and cultural events. The pack is designed to complement the five key areas of the pre-5 curriculum and provides advice and information on key nutritional issues for this age group.

The Happy Jack Project works in collaboration with a range of other local initiatives and partners including Bookstart, music and movement groups, Lothian and Edinburgh Environmental Partnership and oral health staff.

### 3.3 Drinks

It is important for pre-school children to have plenty to drink to help their bodies to function properly, keep cool and prevent constipation.

- Children should be encouraged to drink plain, still water at any time throughout the day. Plain, still water quenches thirst, replenishes body fluid, does not spoil the appetite and is not harmful to teeth.
- Milk and water should be the only drinks taken between meals. From 1 year of age, whole cows milk should be the main milk drink until the child is at least 2 years old. From age 2, semi-skimmed milk can be introduced as a main milk drink, provided the child is eating well. Fully skimmed milk is low in energy and low in some nutrients and for this reason is not suitable as a drink for children under the age of 5. From 5 years of age fully skimmed milk can be given. When only one type of milk is provided (e.g. in the nursery setting) it should be whole milk.
- Fresh fruit juice is a good source of vitamin C and is best given with breakfast or a main meal to help with the absorption of iron. Fresh fruit juices are acidic and can cause dental erosion and therefore should be served in a cup, not a bottle, and at meal times only.
- Children should be strongly discouraged from drinking sugared drinks frequently. There are a number of reasons why these are unsuitable for pre-school children: they contribute to dental disease, they are a poor source of nutrition, they tend to displace other more nutritious foods, and they can result in poor energy balance. Examples of unsuitable drinks include: fizzy (carbonated) drinks including water, still sugary drinks, squashes and flavoured waters, cartons of sugared drinks, cordials for milk drinks.
- Fizzy, carbonated drinks which are sugar free are harmful to teeth due to their high acid content.
- Tea and coffee are not recommended for children under 5 because they contain tannin and caffeine. Tannin interferes with the absorption of iron.

### 3.4 Physical activity

All children, including children with disabilities, should have the opportunity to take part in physical activities, and the pre-school setting is important in contributing to the recommendation for at least 1 hour of physical activity a day. Young children, given the chance, will do this as part of spontaneous play, allowing them to have fun as well as improving physical health and social skills.

Encourage children to be active and plan opportunities for structured activity and unstructured active play on a daily basis. Having access to a range of physical activities encourages young children to develop positive attitudes to the benefits of active living.

Ensure that activities are appropriate to children's age and stage of development and check that links are made with the *Curriculum Framework for Children 3 to 5*.<sup>7</sup>

You will find further information and lots of ideas in *Let's Make Scotland More Active*.<sup>25</sup>

### 3.5 Vegetarian and vegan diets

#### *Vegetarian diets*

Vegetarians don't eat fish or meat, but most will eat animal products, such as eggs, milk and dairy products. Provide food from the main food groups using the menu guidance. Choose alternatives to meat such as eggs, soya products (e.g. tofu), lentils, beans, including baked beans, chopped nut and nut pastes, seed pastes, meat substitutes (e.g. soya mince, quorn) and chickpeas (e.g. falafel, hummus).

Ask parents/guardians about foods that the child is familiar with at home, or about particular foods to be avoided, e.g. gelatine and rennet.

Vegetarian meals and snacks are suitable for all children.

Vegan diets do not include any food from animal sources, therefore, in addition to meat and fish, they exclude dairy produce, eggs and honey. This makes meeting the nutritional needs of the child more complex and they should be discussed with the parents and/or guardians.

#### *Meeting iron requirements on a vegetarian diet*

As meat is one of the main sources of iron it is important that vegetarian and vegan children eat other iron-rich foods such as wholemeal bread, breakfast cereals, pulses, beans, peas, dried fruits, fortified cereals, and dark green vegetables, especially broccoli. Fresh fruit and vegetables and fresh fruit juice are rich in vitamin C, which enhances the uptake of iron in the body. Tea and coffee interfere with the absorption of iron and for this reason are not suitable for young children.

### 3.6 Food choices and religious faiths and beliefs

Families may choose to exclude, include, or prepare foods in a particular way according to their religious faith and beliefs. Appendix 5 provides guidance on food choices for specific religious groups. This gives general guidance only as there will be individual differences and varying levels of adherence to religious laws which should be discussed for each child with his or her parent or guardian.

### 3.7 Children with special needs or therapeutic diets

Some children will need the food they are offered to be modified. There are a number of possible reasons for this, e.g. special needs and therapeutic diets, including those for allergies.

Children with special needs may need to have their food prepared in a particular way to make it easier to eat. They may use specially designed cutlery. In some cases they may need to have a structured eating pattern.

For children on a therapeutic diet, the parent/guardian or registered dietitian will supply the staff or carer with details of the child's dietary needs, including suitable food choices for meals and snacks, foods that should be excluded or specifically included, or supplements that are required.

Therapeutic diets for food allergies are not uncommon in pre-school children. Foods commonly associated with allergies are milk, wheat, peanuts, fish, soya, eggs, shellfish, citrus fruits, seeds and nuts. A wide range of symptoms can occur when a child is exposed to an allergen in food, ranging from a mild reaction to a very rapid and severe response.

When a child has a severe allergy to a particular food you may decide to minimise the risk of exposure by avoiding having the food/ingredient in the pre-school setting. In severe cases it is essential that there is regular access to up-to-date advice from a registered dietitian because ingredients in processed foods change frequently.

All children, regardless of special or therapeutic dietary needs, should enjoy food and choosing and experimenting with different foods.

### 3.8 Vitamin supplementation

Some children may receive vitamin drops, containing vitamins A, D and C. This is the responsibility of parents and guardians and can be discussed with them. However, it will be useful for staff and carers to be aware of current advice on children who may benefit from vitamin drops.

For children aged 1 to 5, the current advice for vitamin supplements is to take vitamins A, D and C.<sup>26,27</sup> Children who are at risk of vitamin deficiency include: persistent poor eaters, children who eat a very limited number of foods, those on restricted diets by choice, vegans and children on restricted diets because of food allergy or intolerance.

There are important issues regarding intake of vitamin D and vitamin D requirements in the Scottish population because we are so far north and have so little sunlight, especially during winter<sup>28</sup> (see Appendix 2).

There is no need to give young children aged 1 to 5 years other more complex multivitamin and/or mineral preparations unless they are on a special or therapeutic diet and it has been advised by a doctor or registered dietitian.



## 4 Putting nutritional guidance into practice



Putting the nutritional guidance into practice is the responsibility of everyone involved with children in the early years setting.

#### 4.1 Working in partnership

Working in partnership with all those involved in caring for children, in particular parents and guardians, to encourage and support them to provide a balanced, nutritious diet will get the best results.

Developing and maintaining good relationships with parents, guardians, staff who support the early years sector, and, most importantly, the children themselves is essential to ensure that the nutritional guidance is given the support and endorsement it needs.

It is also worthwhile exploring other partnerships with individuals and organisations that may be able to help put the nutritional guidance into practice at a local level, e.g. activity groups for children, voluntary sector groups for children, summer clubs, etc.

#### CASE STUDY

### Lanarkshire's Health Promoting Nursery Award Scheme (HPNAS)

NHS Lanarkshire has worked with education partners in North and South Lanarkshire Councils to create an award scheme for Lanarkshire nurseries. This scheme mirrors the successful Lanarkshire Health Promoting School Award Scheme.

The HPNAS will co-ordinate health promotion activity in nurseries in Lanarkshire, in both the public and private sector. The scheme has three levels: bronze, silver and gold. At bronze level, nurseries will audit themselves and identify three priority areas for action, two priority areas at silver and one at gold. Early evidence shows that nutrition and promoting healthy eating will be identified as one of the priority areas. The HPNAS team will support nurseries with personal contact and resources, including a sample healthy eating policy. The team will promote Lanarkshire's Nutrition and Oral Health Pack, distributed to all nurseries in 2003. The award scheme will also link with other local activities such as the free fruit in nursery scheme, joint training for early years staff, and support for parents through practical cooking skills courses. The scheme will have a positive impact on the health of children, staff, parents and carers in Lanarkshire.



## 4.2 Working alongside parents and guardians

As an early years carer, it is important to recognise that parents and guardians play a vital role in supporting your work, and together you have the potential to influence the eating habits of young children. There are a number of ways that you can involve parents and guardians to take an interest in food and healthy eating. These could include:

- Early engagement with parents/guardians about individual needs which may impact on food choices and intake during induction.
- Regular informal contact to let them know what their child has eaten and if he or she has eaten well.
- Involving parents/guardians in developing and updating your policy (see section 4.3) on food and health lets them know that you are committed to providing healthy, varied and enjoyable food as part of childcare; it also lets them know what to expect and asks for their input.
- Making menus available to parents in advance so they can see what the child will receive that day and plan other food in the day accordingly.
- Giving parents/guardians notice of changes to meals and food provision, allowing them to comment on menus.
- Inviting parents to share special recipes with you.
- Providing storybooks with a food theme that parents can read at home with their child.

### CASE STUDY

## Food for Tot

The Food for Tot project in Edinburgh provides parents and carers with information, knowledge and practical skills to help them make informed choices for their family's diet. Food for Tot is a joint initiative between education, social work and health services to deliver nutrition courses through a resource pack for groups of parents with children under the age of 5. Courses are delivered in a variety of outreach settings, although support is also offered to parents on a one-to-one basis.

The project is funded by Sure Start and aims to:

- Develop dietary knowledge to help parents to make healthy food choices for themselves and their children.
- Address parental concerns around how diet and health affect growth and development of babies and young children.
- Build strategies to transfer what has been learned into the home environment.
- Develop parents' self-esteem and confidence.

The Food for Tot project works in partnership with other professionals and projects including the infant feeding advisor, Edinburgh Community Food Initiative, community dental team, health visitors, Books for Babies and the Early Communications Project.

### 4.3 Developing a food and nutrition policy

The recommendations and advice on food and nutrition should be understood and accepted by the staff, carers, parents/guardians and those who provide food for the children. The best way to achieve this is to write down what the staff and carers aim to do with regard to food and drink. This helps by allowing everyone a chance to discuss and agree the aims and add to or change what is decided, and it can be given out to new parents as information on the approach to healthy eating. This written information (or policy) can then be updated as new information becomes available.

Here are some ideas for the sort of information you may wish to consider when developing a policy:

| <b>What types of food will you provide for the children?</b>   |  |
|--|--|
| At meal and snack times ...                                    | <p><i>Healthy food items, low in sugar and salt, and including plenty of fruits and vegetables.</i></p> <p><i>You could explain that a menu will be planned by a member of staff with the knowledge and skills to do so and will be made available to parents (for example by placing on the nursery notice board). The menu plan will include all meals, snacks and drinks to be offered.</i></p> <p><i>You could refer to the fact that you have used this Nutritional Guidance and Adventures in Foodland<sup>4</sup> to develop your menu.</i></p> |
| <b>What types of drinks will you provide for the children?</b> |  |
| Throughout the day ...   | <i>Plain, still water will be available throughout the day.</i>  |
| At snack and meal times ...                                    | <p><i>Fresh fruit juice diluted with water will be offered only at meal times.</i></p> <p><i>Milk and plain still water will be offered with snacks and meals.</i></p>   |

| <b>Who should see the policy? How will it be communicated to them?</b>                       |  |
|--|--|
| New parents and guardians, new staff, carers and caterers ...                                | <i>You may decide to give a copy of the policy to all staff including new members of staff and parents.</i>  |
| Ongoing ...  | <p><i>The policy should contain a copy of the menu cycle. Thereafter you might display weekly menus on a notice board.</i></p> <p><i>Encourage feedback from staff and parents.</i></p> <p><i>Any changes to the policy could also be posted on the notice board.</i></p>  |
| <b>What are you going to say about developing good eating habits?</b>                        |  |
| Staff and carers ...   | <p><i>Will encourage children to enjoy sitting and eating and drinking with others and helping each other with their food and drink (e.g. at snack time pouring the drinks).</i></p> <p><i>Children will not be expected to finish everything on their plate and will be allowed seconds of fruits, bread or milk if still hungry.</i></p> |
| <b>What will you do if a child does not eat?</b>   |  |
| If a child does not like the food ...  | <i>Children who do not eat the food will be offered an acceptable alternative, e.g. plain crackers, cheese, fruit, milk-based desserts.</i>  |
| If it is a continuing problem ...  | <i>Regular informal contact with parents will let them know how their child has been eating and make them aware of any difficulties.</i>   |
| <b>What advice will you give to parents about bringing food into the pre-school setting?</b> |  |
| Bringing sweets and chocolates into the early years setting ...                              | <p><i>Sweets and chocolates are not given to children. We ask parents not to give children sweets or chocolates to bring into the nursery, including treats such as party bags containing sweets.</i></p> <p><i>For the occasional very special celebration children may receive these as part of the pre-school activities.</i></p>       |

A sample food and nutrition policy is set out in Appendix 7.

#### 4.4 Staff development and training

Effective early education and childcare requires a well-qualified workforce, all of whom should be properly trained.<sup>29</sup> Staff and carers will have differing training needs. All staff handling food will need training in food safety and hygiene<sup>18</sup> and some will need to develop the knowledge and skills for menu planning, purchasing and preparation of food to ensure that the nursery meets *National Care Standard 3*.<sup>1</sup>

A staff development programme should assess the training needs of all staff and carers and offer appropriate training. Healthy eating should be an integral part of this training to support the implementation of this guidance, enabling staff to develop an understanding of the nutritional needs of pre-school children and how the guidance can be applied practically in their setting.

Qualifications such as Scottish Vocational Qualifications (SVQs) and the Higher National Certificate (HNC) in Childcare and Education provide training opportunities for early years staff.

#### 4.5 Monitoring and evaluation

Early education and child care settings are regulated by the Scottish Commission for the Regulation of Care, (the Care Commission) and Her Majesty's Inspectorate of Education (HMIe). The *National Care Standards for Early Education and Childcare up to the Age of 16* provide the framework for regulation and the Care Commission takes the lead role in inspection against Standard 3, which includes nutrition. Standard 3.4 requires that:

*“Children and young people have access to a well-balanced and healthy diet (where food is provided) which takes account of ethnic, cultural and dietary requirements, including food allergies. Staff make sure that help with feeding is given in a way that best meets the needs of the child or young person.”*

The Care Commission inspects the provision of food in early years settings as part of its inspection programme. The standards will remain the tool that the Care Commission uses to monitor the quality of services. This guidance will contribute to this process by setting out what the Scottish Executive considers to be a well-balanced and healthy diet.

The Scottish Executive and the Care Commission will continue to work together to raise the standard of food provision for young children in care and education settings.

#### 4.6 Areas for further consideration

During the consultation period, a number of areas were identified by respondents for further consideration and development. These include assessing the nutritional status and intake of pre-school children in Scotland; the need to review evidence and current practice with regard to vitamin supplementation, in particular, the need to review the vitamin D status of pre-school children in Scotland; developing staff training to support implementation of this guidance; and developing further resources such as advice for parents on packed lunches and physical activity.

# Appendices



## Appendix 1 Nutrient guidance for children aged 1 to 5 years

Children, as individuals, have different energy and nutrient requirements depending on their age, gender, body size, rate of growth and level of activity. In the UK we have estimates for the average amount of energy and nutrients required for groups of children at different ages. These are known as the *UK Dietary Reference Values*<sup>23</sup> (DRVs). The nutrient guidance in Tables 1 and 2 is based on the UK DRVs for groups of children aged 1 to 3 years and 3 to 5 years. The figures have been calculated from the dietary energy and nutrient reference values for boys, which are marginally higher than those for girls. As such, the nutrient guidance represents appropriate reference values for *groups* of children and does not apply to individuals.

Nutrient guidance is provided for one meal only (including drinks) (based on 30% of daily energy) and for a combined meal and snack (including drinks) (based on 40% of daily energy). Further guidance for snacks and drinks is also provided in sections 3.2 and 3.3.

The values in Table 1 represent the recommended average energy and nutrient intake from one meal (based on an average taken over five meals). The values in Table 2 represent the recommended average energy and nutrient intake from one meal and a snack (based on an average taken over five meal/snack combinations). This would apply, for example, to a combined meal and snack (e.g. morning snack and lunch) provided for children who are in early years care or education. The average is taken over five days because energy and most nutrient requirements are met over a period of time, rather than within any one day.

To help with food choices and setting menus to meet the nutrient guidance, menu-planning guidance and a sample 10 day menu is provided in sections 2.3 and 2.4. The menu is designed to meet the energy and nutrient guidance (with the exception of salt and vitamin D – see Appendix 2). This is a *sample menu* and does not cover the full range of food choices suitable for each age group. The weights of foods used in the menu are given in Appendix 3.

**Table 1:** Energy and nutrient guidance for a meal providing 30% of daily energy. This would apply to, for example, lunch provided to children aged 1 to 5 years who are in early years care or education.

| Nutrient                                      | 1-5 years   | Min/max | Unit         | 1-3 years     | 4-5 years     |
|---|---|---------|--------------|---------------|---------------|
| Energy  | 30% of EAR  |         | MJ<br>(kcal) | 1.55<br>(371) | 2.15<br>(513) |
| Total fat                                     | No more than 40% of food energy for 1-3 years falling to 35% for 4-5 years            |         | g            | 17            | 20            |
| Carbohydrate<br>...of which NMES <sup>a</sup> | About 50% of food energy<br>No more than 11% of food energy                           | Max     | g<br>g       | 48<br>10      | 67<br>13      |
| Protein<br>(Appendix 2)                       | 30% of RNI  | Min     | g            | 4.4           | 5.9           |
| Vitamin C                                     | Not less than 30% of RNI  | Min     | mg           | 9             | 9             |
| Vitamin D<br>(Appendix 2)                     | Not less than 30% of RNI<br>for 1-3 years only  | Min     | µg           | 2.1           | NA            |
| Vitamin A                                     | Not less than 30% of RNI  | Min     | µg           | 120           | 120           |
| Iron (Appendix 2)                             | Not less than 30% of RNI  | Min     | mg           | 2.1           | 1.8           |
| Calcium                                       | Not less than 30% of RNI  | Min     | mg           | 105           | 135           |
| Zinc  | Not less than 30% of RNI  | Min     | mg           | 1.5           | 1.95          |
| Sodium<br>(Appendix 2)                        | No more than 30% of SACN<br>recommendation  | Max     | mg           | 236           | 353           |
| Salt (NaCl)                                   | No more than 30% of SACN<br>recommendation  | Max     | g            | 0.6           | 0.9           |
| Fruit and<br>vegetables                       | No less than 30% of the<br>recommendation<br>2-3 child-sized portions<br>(Appendix 4) | Min     |              |               |               |
| Water   | Cool drinking water available<br>throughout the day                                   | Min     |              |               |               |

**EAR (estimated average requirement):** the amount that satisfies 50% of the children in a group (defined by age and gender).

**RNI (reference nutrient intake):** the amount of a nutrient that is sufficient to meet the dietary requirements for about 97% of the children in a group (defined by age and sometimes by gender). Intakes above this amount will almost certainly be adequate.

**Percentage of energy (%):** energy in kilojoules (kJ) provided as fat, carbohydrate and non-milk extrinsic sugars.

**Scientific Advisory Committee on Nutrition (SACN):** *Salt and Health* (2003) London [www.sacn.gov.uk](http://www.sacn.gov.uk)

**a Added sugars:** these are sometimes known as non-milk extrinsic sugars (NMES) or free sugars and are found in sweets, biscuits, soft drinks, breakfast cereals, table sugar, honey and fruit juice. They are not found in plain milk or in foods such as fruit and vegetables.

**Table 2:** Energy and nutrient guidance for a snack and meal combination. This would apply, for example, to a morning snack and lunch provided to children aged 1 to 5 years who are in early years care or education.

| Nutrient                                      | 1-5 years  | Min/max | Unit         | 1-3 years     | 4-5 years     |
|---|--|---------|--------------|---------------|---------------|
| Energy  | 40% of EAR   |         | MJ<br>(kcal) | 2.06<br>(493) | 2.86<br>(684) |
| Total fat                                     | No more than 40% of food energy for 1-3 years falling to 35% for 4-5 years         |         | g            | 22            | 27            |
| Carbohydrate<br>...of which NMES <sup>a</sup> | About 50% of food energy<br>No more than 10% of food energy                        | Max     | g<br>g       | 64<br>13      | 89<br>18      |
| Protein<br>(Appendix 2)                       | 40% of RNI   | Min     | g            | 5.8           | 7.9           |
| Vitamin C                                     | Not less than 40% of RNI   | Min     | mg           | 12            | 12            |
| Vitamin D<br>(Appendix 2)                     | Not less than 40% of RNI for 1-3 years only  | Min     | µg           | 2.8           | NA            |
| Vitamin A                                     | Not less than 40% of RNI   | Min     | µg           | 160           | 160           |
| Iron<br>(Appendix 2)                          | Not less than 40% of RNI   | Min     | mg           | 2.8           | 2.4           |
| Calcium                                       | Not less than 40% of RNI   | Min     | mg           | 140           | 180           |
| Zinc  | Not less than 40% of RNI   | Min     | mg           | 2             | 2.6           |
| Sodium<br>(Appendix 2)                        | No more than 40% of SACN recommendation  | Max     | mg           | 314           | 471           |
| Salt (NaCl)                                   | No more than 30% of SACN recommendation  | Max     | g            | 0.8           | 1.2           |
| Fruit and vegetables                          | No less than 40% of the recommendation<br>2-3 child-sized portions<br>(Appendix 4) | Min     |              |               |               |
| Water   | Cool drinking water available throughout the day                                   | Min     |              |               |               |

**EAR (estimated average requirement):** the amount that satisfies 50% of the children in a group (defined by age and gender).

**RNI (reference nutrient intake):** the amount of a nutrient that is sufficient to meet the dietary requirements for about 97% of the children in a group (defined by age and sometimes by gender). Intakes above this amount will almost certainly be adequate.

**Percentage of energy (%):** energy in kilojoules (kJ) provided as fat, carbohydrate and non-milk extrinsic sugars.

**Scientific Advisory Committee on Nutrition (SACN):** *Salt and Health* (2003) London [www.sacn.gov.uk](http://www.sacn.gov.uk)

**a Added sugars:** these are sometimes known as non-milk extrinsic sugars (NMES) or free sugars and are found in sweets, biscuits, soft drinks, breakfast cereals, table sugar, honey and fruit juice. They are not found in plain milk or in foods such as fruit and vegetables.

## Appendix 2 Menu planning

### Protein

The nutrient guidance for protein is for a meal to provide 30% of the daily RNI (Appendix 1, Table 1) and a meal and a snack combination to provide 40% of the RNI (Appendix 1, Table 2). When designing a menu, the protein content will usually work out higher than this, which is in line with eating patterns in the UK population and helps to provide sufficient iron and zinc in the diet.

### Vitamin D

The UK Reference Nutrient Intake (RNI) for vitamin D for children aged 6 months to 3 years is 7 µg per day.<sup>23</sup> For children 4 years and older there is no RNI because it is assumed that the action of sunlight on the skin will ensure that sufficient vitamin D is available. Vitamin D status in pre-school children varies depending on the season of the year and a dietary supply of vitamin D is important to maintain vitamin D status during autumn, winter and spring in Scotland.<sup>28,27</sup> Vitamin D is also available from body stores. However, adequate body stores of vitamin D depend on regular exposure of the skin to sunlight during the summer months.

The children most at risk of low vitamin D status and deficiency are those living in northern latitudes (which includes Scotland) where there is inadequate sunlight for much of the year. In particular children with darker skin pigmentation, e.g. from Asian, Middle Eastern, African and Eastern European families, living in Scotland.<sup>28</sup> This is because there is less synthesis of the bioactive form of vitamin D through the action of sunlight on darker skin.

Based on current dietary choices, achieving the dietary RNI of 7 µg per day (1 to 3 years old only) is unlikely without supplementation. Therefore, routine vitamin D supplementation is recommended for all children over 1 year of age and should be continued until 5 years unless the diet is diverse and plentiful.<sup>26,27</sup>

### Iron

The nutrient guidance for iron is for a meal to provide 30% of the RNI and for a meal and snack combination to provide 40% of the RNI. Children between the ages of 1 and 5 years have high iron requirements because of their rapid growth and the need to build up iron stores. A high proportion of pre-school children in the UK have less than adequate iron intakes and iron deficiency anaemia is common in this age group.<sup>30,31</sup> Iron deficiency can have lasting effects on health and development.<sup>32</sup> Therefore, we need to improve the iron status of young children through adequate dietary intake.

In practice, achieving adequate iron intake is not easy and requires careful menu planning to ensure that iron-rich foods are included on a regular basis.<sup>33</sup> Red meats are the richest and most easily absorbed source of iron, however breakfast cereals fortified with iron are also an important source of iron for children. The formal childcare setting is an excellent opportunity to boost overall iron intakes by encouraging healthy eating.

## Sodium

The nutrient guidance for sodium is for a meal to provide a maximum of 30% of the daily SACN<sup>34</sup> recommendation (for age group 1 to 5 years) and the combination of a meal and snack to provide a maximum of 40%. The sample menus given in this document do not meet the nutrient guidance for sodium. This is because the majority of the sodium in the diet is found in processed food and also in bread. Although this may eventually be partly addressed by a decrease in the sodium content of processed foods and breads, caterers can reduce salt intake by choosing low-salt foods and reducing the salt used in cooking, e.g. making sauces from base ingredients, not adding salt to sauces and homemade soups, choosing low salt varieties of tinned foods. Work is already under way with partners in the food industry to reduce the salt content of processed foods and this will eventually help to reduce the sodium content of processed foods used in public sector catering.<sup>35</sup> For further information and ideas on reducing sodium intake see the Food Standards Agency website.<sup>36</sup>



## Menu 2: A 10-day menu with weighted portions for children aged 1 to 3 years

| Day | Breakfast   | Mid-morning snack  | Lunch   | Mid-afternoon snack   | Tea  |
|-----|---|--|---|---|--|
| 1   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>porridge (110g) served with milk (50ml)</p> <p>toasted wholemeal bread (small slice, 25g) with spread (5g)</p>           | <p>milk (100ml)</p> <p>mini Scotch pancake, (20g) with spread (3g)</p> <p>tangerine (50g)</p>        | <p>spaghetti bolognese<sup>b</sup> (150g, including sauce and spaghetti) with added carrots (40g)</p> <p>custard (60g) and apricots (50g)</p>   | <p>milk (100ml)</p> <p>1/2 small banana (50g)</p> <p>fresh apple (50g) served with plain yoghurt as a dip (40g)</p> | <p>cheddar cheese (30g) and tomatoes (50g) on toasted white bread (45g) with spread (5g)</p> <p>mandarin oranges in juice (50g) with vanilla ice cream (40g)</p> |
| 2   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>Weetabix (20g) with milk (50ml)</p> <p>small slice wholemeal toast (25g) with spread (5g) and jam (5g)</p>               | <p>milk (100ml)</p> <p>bread sticks (20g)</p> <p>cheese cubes (10g)</p> <p>apple chunks (50g)</p>    | <p>small wholemeal pitta bread (35g) with chicken<sup>b</sup> (40g) and sweetcorn (35g) served with sliced cherry tomatoes (30g) and diced cucumber (20g)</p> <p>milk jelly (70g) topped with chopped pineapple (40g)</p> | <p>milk (100ml)</p> <p>mini fruit scone (25g) with spread (5g)</p> <p>1 plum (55g)</p>                              | <p>vegetable soup (150g)</p> <p>crusty white bread (40g) with spread (5g)</p> <p>custard (80g) and peaches (50g)</p>   |
| 3   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>sliced hard-boiled egg<sup>c</sup> (50g) on a small slice of toasted wholemeal bread (40g) with spread (10g)</p>         | <p>milk (100ml)</p> <p>toasted teacake (30g) and spread (5g)</p>                                     | <p>pork and beef sausage<sup>b</sup> (grilled) (40g), baked potato (75g), baked beans (80g)</p> <p>dried apricot (15g)</p> <p>raisins (15g)</p>   | <p>milk (100ml)</p> <p>fresh banana (30g)</p> <p>plain fromage frais (60g)</p>                                      | <p>chicken risotto<sup>b</sup> (150g) with added mushrooms (20g)</p> <p>apple crumble (70g) with milk (25ml)</p>   |
| 4   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>cornflakes (20g) with milk (50ml) and raisins (20g)</p> <p>small slice of toasted white bread (25g) with spread (5g)</p> | <p>milk (100ml)</p> <p>small banana (80g) or finger food selection, e.g. 1/2 banana and 4 grapes</p> | <p>sliced hard-boiled egg<sup>c</sup> (50g) with wholemeal bread soldiers (30g) with spread (7g)</p> <p>rice pudding (100g) with sultanas (10g)</p>   | <p>milk (100ml)</p> <p>mini muffin toasted (40g) with spread (5g)</p> <p>melon slices (40g)</p>                     | <p>minced beef<sup>b</sup> in gravy (90g), mashed potatoes (90g), broccoli (50g)</p> <p>fruit cocktail in juice (60g)</p>  |

**Menu 2: A 10-day menu with weighted portions for children aged 1 to 3 years**

| Day | Breakfast   | Mid-morning snack   | Lunch  | Mid-afternoon snack  | Tea   |
|-----|---|---|--|--|---|
| 5   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>baked beans (60g)</p> <p>toasted muffin (40g) with spread (5g)</p>   | <p>milk (100ml)</p> <p>crumpet (20g) with spread (5g)</p> <p>fresh peach (50g)</p>    | <p>wholemeal roll (50g) with spread (7g), filled with ham<sup>b</sup> (30g) tomato (35g) and served with carrot sticks (30g)</p> <p>apple sponge pudding (50g)</p>   | <p>milk (100ml)</p> <p>pineapple in juice (50g) served with some plain yoghurt (40g)</p>         | <p>grilled salmon<sup>b</sup> (50g) basted with olive oil (5g) with new potatoes (100g) and green beans (40g)</p> <p>fruit fromage frais (60g) served with strawberries (40g)</p> |
| 6   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>puffed wheat (20g) with milk (50ml)</p> <p>toasted white bread (small slice, 25g) with spread, (5g) and jam (8g)</p>               | <p>milk (100ml)</p> <p>grapes (30g)</p> <p>banana (30g)</p> <p>melon (30g)</p>        | <p>lean beef stew<sup>b</sup> (90g) with boiled potatoes (100g), turnip boiled (30g), carrots (30g)</p> <p>fruit crumble (60g) and custard (40g)</p>   | <p>water</p> <p>muffin (35g)</p> <p>apple (30g)</p>  | <p>ciabatta (35g) with cheddar cheese (20g) and tomatoes (50g)</p> <p>fruit yoghurt (80g) with pears in juice (60g)</p>   |
| 7   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>porridge (110g made with milk) with milk (50ml)</p> <p>small half slice toast (15g) with spread (5g)</p>                           | <p>milk (100ml)</p> <p>plain scones (25g) and spread (10g)</p> <p>tangerine (30g)</p> | <p>pitta bread (35g) filled with tuna<sup>b</sup> (45g) and sweetcorn (20g) with plain yoghurt (20g) served with tomatoes (20g)</p> <p>milk jelly (90g) with mandarin oranges (50g)</p>                                    | <p>milk (100ml)</p> <p>chopped carrots (30g) and cucumber (30g) sliced cherry tomatoes (30g)</p> | <p>Spanish omelette (80g) and baked potatoes (80g)</p> <p>apple pie (60g) with vanilla ice cream (40g)</p>  |
| 8   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>grilled bacon<sup>b</sup> (25g) with sliced tomato (50g)</p> <p>small slice of toasted wholemeal bread (25g) with spread (10g)</p> | <p>milk (100ml)</p> <p>banana (80g)</p>   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>crusty bread (40g) with spread (10g)</p> <p>sardines (40g) with sliced tomato (50g)</p> <p>1 carton fruit yoghurt with 6 chopped grapes</p> | <p>milk (100ml)</p> <p>Scotch pancakes (20g) with spread</p> <p>strawberries (40g)</p>           | <p>lentil soup (150g)</p> <p>wholemeal bread (25g) with spread (5g), cold roast turkey<sup>b</sup> (25g) with lettuce (10g), sliced tomatoes (50g) and cranberry sauce (10g)</p>  |

**Menu 2: A 10-day menu with weighted portions for children aged 1 to 3 years**

| Day | Breakfast  | Mid-morning snack  | Lunch  | Mid-afternoon snack   | Tea   |
|-----|--|--|--|---|---|
| 9   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>porridge (110g made with milk) served with milk (50ml)</p> <p>small slice of toasted white bread (25g) with spread (5g)</p> | <p>milk (100ml)</p> <p>cheese scone (25g) with spread (10g) and sliced cherry tomatoes (45g)</p> | <p>mild chicken korma<sup>b</sup> (90g) with boiled rice (80g) and naan bread (25g)</p> <p>fruit yoghurt (60g)</p> | <p>milk (100ml)</p> <p>banana (80g) or finger food selection: chopped banana (30g), apple (30g) and oatcake (15g)</p> | <p>mini wholemeal roll (30g) with spread (10g), sliced hard-boiled egg<sup>c</sup> (50g) sliced tomato (35g) and mustard and cress</p> <p>sponge pudding (50g) and fruit cocktail (40g)</p> |
| 10  | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>scrambled egg<sup>c</sup> (60g) on wholemeal toast (25g) with spread (5g)</p>   | <p>water</p> <p>plain fromage frais (60g)</p> <p>plums (30g)</p>                                 | <p>vegetable lasagne (160g)</p> <p>garlic bread (25g)</p> <p>rice pudding (100g) with pureed apples (30g)</p>      | <p>milk (100ml)</p> <p>cream crackers (10g) with cheddar cheese (15g) and apple (40g)</p>                             | <p>minestrone soup (150g)</p> <p>white bread toasted (45g) with spread (10g), ham<sup>b</sup> (25g), and pineapple (40g)</p>  |

a We suggest that pure, unsweetened orange juice is diluted about 50:50 juice to water throughout. However, it can be served undiluted, or with a greater proportion of water to juice if a longer, more thirst-quenching drink is preferred.

b For vegetarian options for meat, fish and chicken the following can be used as substitutes: for beef stew, beef could be substituted with chickpeas or kidney beans; in bolognese, meat could be substituted with soya mince; cheese, hummus or egg could replace tuna; chicken could be substituted with lentils or chickpeas. Other suitable substitutes are veggie sausages, quorn, peanut butter, baked beans, cheese and bean burgers.

c Where fresh eggs are not used to avoid the risk of *Salmonella*, sliced hard-boiled eggs and scrambled eggs can be substituted with dried powdered egg.

d The spread used is monounsaturated or polyunsaturated – this applies to all references to ‘spread’ throughout the document.

**Menu 3: A 10-day menu with weighted portions for children aged 3 to 5 years**

| Day | Breakfast  | Mid-morning snack   | Lunch   | Mid-afternoon snack   | Tea   |
|-----|--|---|---|---|---|
| 1   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>porridge made with milk (140g) served with milk (50ml)</p> <p>toasted wholemeal bread small slice (25g) with spread (10g) and jam (15g)</p> | <p>milk (100ml)</p> <p>mini Scotch pancake (30g) with spread (10g)</p> <p>tangerine (50g)</p>     | <p>spaghetti bolognese<sup>b</sup> (200g, including sauce and spaghetti) with added carrots (40g)</p> <p>custard (100g) and apricots (50g)</p>  | <p>milk (100ml)</p> <p>1/2 small banana</p> <p>fresh apple (65g) served with plain yoghurt as a dip (80g)</p> | <p>cheddar cheese (45g) on toasted white bread (45g) with spread (15g) tomatoes (50g)</p> <p>mandarin oranges in juice (50g) with vanilla ice cream (50g)</p> |
| 2   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>Weetabix (30g) with milk (100ml)</p> <p>small slice wholemeal toast (25g) with spread (10g) and jam (15g)</p>                               | <p>milk (100ml)</p> <p>bread sticks (25g)</p> <p>cheese cubes (15g)</p> <p>apple chunks (50g)</p> | <p>small wholemeal pitta bread (75g) with roast chicken<sup>b</sup> (50g) and sweetcorn (35g) served with sliced cherry tomatoes (35g) and diced cucumber (20g)</p> <p>milk jelly (110g) with chopped pineapple (70g)</p> | <p>milk (100ml)</p> <p>mini fruit scone (2.5g) with spread (10g)</p> <p>1 plum (55g)</p>                      | <p>vegetable soup (220g)</p> <p>crusty white bread (50g) spread (5g)</p> <p>custard (100g) and peaches (60g)</p>  |
| 3   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>sliced hard-boiled egg <sup>c</sup> (50g)</p> <p>small slice of toasted wholemeal bread (40g) with spread (15g)</p>                         | <p>milk (100ml)</p> <p>toasted teacake (50g)</p>  | <p>pork and beef sausage<sup>b</sup> (grilled) (55g), baked potato (100g), baked beans (80g)</p> <p>dried apricot (20g)</p> <p>raisins (20g)</p>  | <p>milk (100ml)</p> <p>fresh banana (30g)</p> <p>plain fromage frais (60g)</p>                                | <p>chicken risotto<sup>b</sup> (180g) with added mushrooms (30g)</p> <p>apple crumble (95g) and milk (25ml)</p>   |
| 4   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>cornflakes (30g) with milk (100ml) and raisins (20g)</p> <p>slice of toasted white bread (35g) with spread (5g)</p>                         | <p>milk (100ml)</p> <p>small banana (50g)</p> <p>grapes (20g)</p>                                 | <p>sliced hard-boiled egg<sup>c</sup> (50g) with wholemeal bread soldiers (60g) bread with spread (15g)</p> <p>rice pudding (150g) with sultanas (20g)</p>  | <p>milk (100ml)</p> <p>mini muffin (40g) with spread (10g)</p> <p>melon slices (40g)</p>                      | <p>minced beef<sup>b</sup> in gravy (150g), mashed potatoes (120g), broccoli (50g)</p> <p>fruit cocktail in juice (90g)</p>                                   |

**Menu 3: A 10-day menu with weighted portions for children aged 3 to 5 years**

| Day | Breakfast   | Mid-morning snack  | Lunch   | Mid-afternoon snack  | Tea   |
|-----|---|--|---|--|---|
| 5   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>baked beans (80g)</p> <p>toasted muffin (50g) with spread (15g)</p>  | <p>milk (100ml)</p> <p>crumpet (40g) with spread (10g)</p> <p>fresh peach (50g)</p>    | <p>wholemeal rolls (60g) with spread (15g), filled with ham<sup>b</sup> (30g), tomato (35g) and served with carrot sticks (35g)</p> <p>apple sponge pudding (90g)</p>                           | <p>water</p> <p>pineapple in juice (80g) served with plain yoghurt (80g)</p>   | <p>grilled salmon<sup>b</sup> (75g) basted with olive oil (10g) with boiled potatoes (100g) and green beans (50g)</p> <p>fruit fromage frais (60g) served with strawberries (40g)</p> |
| 6   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>puffed wheat (30g) with milk (100ml)</p> <p>toasted white bread (small slice 35g) with spread (5g) and jam (10g)</p>                                   | <p>milk (100ml)</p> <p>grapes (30g)</p> <p>banana (30g)</p> <p>melon (30g)</p>         | <p>lean beef stew<sup>b</sup> (105g) with boiled potatoes (100g), turnip boiled (40g) and carrots (40g)</p> <p>fruit crumble (95g) and custard (60g)</p>  | <p>water</p> <p>muffin (40g)</p> <p>apple (50g)</p>  | <p>ciabatta (50g) with cheddar cheese (35g) and tomatoes (50g)</p> <p>fruit yoghurt (125g) with pears in juice (80g)</p>  |
| 7   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>porridge (130g made with milk) served with milk (100ml)</p> <p>small slice toast (25g) with spread (10g)</p>   | <p>milk (100ml)</p> <p>plain scones (25g) with spread (10g)</p> <p>tangerine (50g)</p> | <p>pitta bread (75g) filled with tuna<sup>b</sup> (45g) and sweetcorn (40g) with plain yoghurt (40g) served with tomatoes (50g)</p> <p>milk jelly (150g) topped with mandarin oranges (50g)</p> | <p>milk (100ml)</p> <p>crackers (10g)</p> <p>plain yoghurt (80g)</p> <p>chopped carrots (35g), cucumber (30g) and sliced cherry tomatoes (45g)</p> | <p>Spanish omelette<sup>c</sup> (120g), baked potatoes (110g)</p> <p>apple pie (90g) and vanilla ice cream (40g)</p>  |
| 8   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>grilled bacon<sup>b</sup> (25g) with sliced tomato (60g)</p> <p>small slice of toasted wholemeal bread (40g) with spread (10g)</p> <p>milk (100ml)</p> | <p>milk (100ml)</p> <p>banana (100g)</p>   | <p>crusty bread (50g) with spread (10g)</p> <p>sardines<sup>b</sup> (50g) with sliced tomato (50g)</p> <p>fruit yoghurt (125g) chopped grapes (30g)</p>   | <p>milk (100ml)</p> <p>Scotch pancakes (30g) with spread (5g)</p> <p>strawberries (50g)</p>  | <p>lentil soup (170g)</p> <p>wholemeal bread (70g) with spread (10g), cold roast turkey<sup>b</sup> (45g) with lettuce (20g), sliced tomatoes (50g) and cranberry sauce (20g)</p>     |

### Menu 3: A 10-day menu with weighted portions for children aged 3 to 5 years

| Day | Breakfast  | Mid-morning snack  | Lunch  | Mid-afternoon snack   | Tea   |
|-----|--|--|--|---|---|
| 9   | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>porridge (140g made with milk) served with milk (100ml)</p> <p>small slice of toasted white bread (40g) with spread (10g)</p> | <p>milk (100ml)</p> <p>cheese scone (40g) with spread (10g) and sliced cherry tomatoes (45g)</p> | <p>mild chicken korma<sup>b</sup> (100g) with boiled rice (100g) and naan bread (50g)</p> <p>fruit yoghurt (80g)</p> | <p>milk (100ml)</p> <p>banana (50g)</p> <p>apple (50g)</p> <p>oatcake (15g)</p>           | <p>mini wholemeal roll (50g) with spread (10g), sliced hard-boiled egg<sup>c</sup> (50g), tomato (35g) and mustard and cress</p> <p>sponge pudding (90g) and fruit cocktail (60g)</p> |
| 10  | <p>pure, unsweetened orange juice (30ml) diluted with water<sup>a</sup></p> <p>scrambled egg<sup>c</sup> (70g), toast (35g) with spread (10g)</p>  | <p>water</p> <p>plain fromage frais (100g)</p> <p>plums (55g)</p>                                | <p>vegetable lasagne (180g)</p> <p>garlic bread (40g)</p> <p>rice pudding (150g) with pureed apples (30g)</p>        | <p>milk (100ml)</p> <p>cream crackers (15g) with cheddar cheese (25g) and apple (50g)</p> | <p>minestrone soup (170g)</p> <p>white bread toasted (55g) with spread (15g), ham<sup>b</sup> (30g) and pineapple (40g)</p>   |

a We suggest that pure, unsweetened orange juice is diluted about 50:50 juice to water throughout. However, it can be served undiluted, or with a greater proportion of water to juice if a longer, more thirst-quenching drink is preferred.

b For vegetarian options for meat, fish and chicken the following can be used as substitutes: for beef stew, beef could be substituted with chickpeas or kidney beans; in bolognese, meat could be substituted with soya mince; cheese, hummus or egg could replace tuna; chicken could be substituted with lentils or chickpeas. Other suitable substitutes are veggie sausages, quorn, peanut butter, baked beans, cheese and bean burgers.

c Where fresh eggs are not used to avoid the risk of *Salmonella*, sliced hard-boiled eggs and scrambled eggs can be substituted with dried powdered egg.

d The spread used is monounsaturated or polyunsaturated – this applies to all references to ‘spread’ throughout the document.

## Appendix 4 Children's fruit and vegetable portion sizes

The fruit and vegetable portion sizes for pre-school children are derived from the portion size guide for adults used in the Scottish Health Survey 2004 and the Health Survey for England 2003. They are approximately one- to two-thirds of an adult portion:

|  |  |
|--|--|
| Vegetables (fresh, frozen or canned)                   | 25-50g, 1-2 heaped tablespoons                           |
| Pulses   | 25-50g, 1-2 heaped tablespoons                           |
| Salad  | $\frac{1}{4}$ - $\frac{1}{2}$ cereal bowlful             |
| Vegetables in composites, such as vegetable chilli     | 25-50g, 1-2 heaped tablespoons per portion of the recipe |
| Banana   | 30-60g, $\frac{1}{2}$ -1 small                           |
| Very large fruit, such as melon                        | $\frac{1}{2}$ -1 small slice                             |
| Large fruit, such as grapefruit                        | $\frac{1}{2}$ fruit                                      |
| Medium fruit, such as apples                           | 25-50g, $\frac{1}{4}$ - $\frac{1}{2}$ fruit              |
| Small fruit, such as plum                              | 25-50g, $\frac{1}{2}$ -1 fruit                           |
| Very small fruit, such as blackberries                 | $\frac{1}{2}$ -1 average handful                         |
| Dried fruit  | $\frac{1}{2}$ tablespoon                                 |
| Fruit in composites, such as stewed fruit in apple pie | 30-60g, 1-2 heaped tablespoons per portion of the recipe |
| Frozen fruit/canned fruit                              | 30-60g, 1-2 heaped tablespoons                           |
| Fruit juice  | $\frac{1}{2}$ -1 small glass (100-150ml)                 |

Children's portion sizes for a wide range of foods have been established from dietary survey data from the UK national surveys of children. They will be published by the Food Standards Agency early in 2006.<sup>37</sup>

## Appendix 5 Food for religious faiths and beliefs

Families and children may choose to exclude, include, or prepare foods in a particular way according to their religious faith and beliefs.

The guidance given below on food choices for specific religious groups is very general. There will be individual differences and varying levels of adherence to religious laws which should be discussed for each child with his or her parent or guardian.

|                    | Meat  | Poultry | Fish and Shellfish | Dairy Products | Eggs                                    | Fruit and Vegetables | Miscellaneous  | Fasting |
|--------------------|---|---------|--------------------|----------------|---|----------------------|--|---------|
| <b>Buddhist</b>    | Many are vegetarian but some may eat fish.<br>Some may be vegan.  |         |                    |                | Some may exclude.                       | Yes                  | Diet will vary depending on country of origin.   | Yes     |
| <b>Hindu</b>       | Most are vegetarian. Dairy is generally acceptable.<br>Those who eat meat, poultry, and fish will exclude beef.   |         |                    |                | Some may be vegan.<br>Some may exclude. | Yes                  | <i>Strict hindus also exclude:</i><br>Tea and Coffee<br>Alcohol  | Yes     |
| <b>Jewish</b>      | Pork and pork products are excluded.<br>Kosher beef, lamb, poultry and fish (with fins and scales) are eaten. Shellfish is not eaten.<br>Meat and dairy are never eaten at the same meal. Dairy may not be eaten until 3 hours after meat or poultry. |         |                    |                | Eggs can be eaten without blood spots.  | Yes                  | <i>Will also exclude:</i><br>Gelatin, Fats, Emulsifiers, stabilisers, and additives from animal origin that is not kosher.           | Yes     |
| <b>Muslim</b>      | Pork and pork products are excluded.<br>Halal beef, lamb, poultry, fish are eaten.<br>Dairy products are eaten by most.   |         |                    |                | Yes                                     | Yes                  | <i>Will also exclude:</i><br>Gelatin, Fats, Emulsifiers, stabilisers, and additives from animal origin that is not halal.<br>Alcohol | Yes     |
| <b>Sikh</b>        | Many are vegetarian.<br>Those who eat meat, poultry and fish will exclude beef and possibly pork.<br>Halal and kosher meat are not eaten.   |         |                    |                | Some may exclude.                       | Yes                  |  | No      |
| <b>Rastafarian</b> | Pork and pork products are excluded.<br>Many will be vegetarian.<br>Some may be vegan.  |         |                    |                | Some may exclude.                       | Yes                  | <i>Prefer to eat a pure and natural diet so may exclude:</i><br>coffee, alcohol, canned or non-organic foods.                        | Yes     |

Note 1: Some people within some of the faith groups identified may not observe the dietary laws stated above. Prohibitions and restrictions even within a particular faith may change between denominations or branches. Please do not take this as an authoritative list. This page is meant as a guide only.

Note 2: Tea and coffee are not recommended for children under 5 for nutritional reasons (see section 3.3). Information about alcohol is included in this table for completeness in relation to the diets of adult members of the faith groups only.

## Appendix 6 Putting it into practice

### Menu planning checklist

Once you have planned your menu you may wish to use this checklist to ensure that you've covered the key points. The comprehensive menu planning guidance in section 2.3 provides more detail.

- Fruit and/or vegetables will be offered at each lunch and tea.
- Each meal (lunch and tea) will contain at least one food from the starchy food group (i.e. bread, rice, pasta, other cereals or potatoes).
- Each meal (lunch and tea) will contain at least one of the following: meat, fish, eggs, pulses, seeds and nuts, cheese. A variety of these foods should be offered over a week.
- High-fat, processed potato products (e.g. croquettes, waffles, smiley faces or other shaped products and chips) will be served no more than once in a full 5-day menu.
- Milk, cheese or yogurt will be offered daily.
- Puddings will be fruit- or milk-based and low in added sugar.
- A mixture of hot and cold foods will be offered.
- The only drinks offered at snack time will be milk or water.
- Fruit juice and dried fruit will be offered at meal times only.
- Snacks will be healthy, varied, and low in added sugars and should include fresh fruit or vegetables most of the time.
- Meals and snacks will not include sweets, chocolate or fizzy drinks.



## Appendix 7 Sample food and nutrition policy

- The weekly snack and lunch menu will be on display in advance. Nursery recipes will be available on request.
- The weekly menu will provide children with a varied and healthy diet.
- All children will be offered suitable foods; this will include children with special dietary requirements and allergies.
- Early session children who do not receive breakfast at home will be offered this when they arrive in agreement with parents or guardians.
- Milk or water will be served with morning and afternoon snacks.
- All dairy products used in the nursery will be full fat.
- Water will be available at all times.
- Milk, water or diluted fresh fruit juice will be served with the main meal.
- Children will be allowed to have second helpings of fruit- or milk-based desserts if available.
- Children will still receive dessert if they refuse their main course.
- Parents or guardians will be advised if their child is not eating well.
- Advice will be given to parents about suitable food to bring from home, including suitable party foods and healthy options for packed lunches.
- Parents of children who are on special diets will be asked to provide as much written information as possible about suitable foods, and in some cases may be asked to provide the food themselves. A photograph of any child with a special dietary requirement or allergy will be displayed in the food preparation area to ensure that permanent and supply staff are aware of each individual child's needs.
- Carers will sit with children while they eat and will provide a good role model for healthy eating.
- Withholding food will not be used as a form of punishment.
- Children will be encouraged to develop good eating skills and table manners and will be given plenty of time to eat.
- Children will be encouraged to play outside everyday, weather permitting. Parents will be asked to provide sunscreen for their child when necessary.

This policy will be reviewed annually and updated as necessary by the Nursery Health Promotion Group.

## Appendix 8 Working group

The working group was convened by NHS Health Scotland to produce the draft guidelines for consultation.

|                 |   |
|-----------------|---|
| Julie Armstrong | Lecturer in Nutrition, Glasgow Caledonian University, seconded to NHS Health Scotland |
| Cathy Higginson | Health Improvement Programme Manager (Food and Nutrition), NHS Health Scotland        |
| Fiona MacDonald | Senior Health Promotion Officer (Food and Health), NHS Argyll and Clyde               |
| Ruth Campbell   | Public Health Nutritionist, NHS Lanarkshire   |
| Jennie Jackson  | Lecturer in Human Nutrition and Dietetics, Glasgow Caledonian University              |
| Helen Bennewith | Research Student, Glasgow Caledonian University                                       |
| Gillian Kynoch  | Scottish Food and Health Co-ordinator, Scottish Executive                             |

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