FOOD AND NUTRITION FOR HEALTHY, CONFIDENT KIDS

Guidelines to Support Healthy Eating Environments in New Zealand Early Childhood Education Services and Schools

THESE GUIDELINES, PRODUCED BY THE MINISTRY OF EDUCATION, ARE SUPPORTED BY THE MINISTRY OF HEALTH’S FOOD AND BEVERAGE CLASSIFICATION SYSTEM. THEY ALSO CONTRIBUTE TO THE MISSION-ON CAMPAIGN.

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WHAT THE GUIDELINES ARE ABOUT

These guidelines are designed to help early childhood education services, schools, and their communities develop environments that support healthy eating in all aspects of their operations. They outline ways of developing policies and procedures about food and beverages provided on site and for promoting strong consistent messages about healthy eating.

Research has shown that poor nutrition can be associated with lower academic achievement and poor school attendance. Teachers report improvements in children’s and young people’s attendance, attention, behaviour, and levels of concentration in early childhood education services and schools where healthy eating has become accepted practice.

THE GUIDELINES INCLUDE:

- suggested processes for policy development and implementation involving input from members of the early childhood education service or school community as appropriate;
- ways to establish an environment that supports healthy eating;
- approaches that help children and young people learn skills (not just facts) and give them opportunities to practise healthy eating and food preparation;
- strategies to encourage consistent messages about food and healthy eating, for example, when using food for fund-raising or making choices about sponsored products;
- ideas for encouraging and supporting healthy eating as well as some teaching and learning approaches.
INTRODUCTION
These food and nutrition guidelines are part of the Government’s Mission-On package of initiatives aimed at giving New Zealand’s children and young people, and their families, the tools to become healthier so they can lead active and successful lives.

Children and young people need to establish healthy behaviours during their early years so they can lead healthy lifestyles after they leave their school and family environments.

They need to understand about the building blocks of a healthy lifestyle – good food choices, occasional ‘treats’, and being active – so that when they reach adulthood they stand a much better chance of being healthy.
The Mission-On campaign has a broad range of initiatives which will contribute to this. The first initiative aims to improve nutrition within the school and early childhood education environments.

Rt Hon. Helen Clark, September 2006

Food and nutrition have an essential role in children and young people’s achievement at all stages of education. There is evidence that young people’s food choices can affect their attendance and behaviour as well as their health.

It is part of the role of early childhood education services and schools to provide an environment where students learn, and this includes learning to make healthy food choices. Early childhood education and school settings provide numerous and diverse opportunities for children and young people to make decisions about food, which is why it is important that these environments are structured to promote and support healthy eating.

These guidelines are designed to help early childhood education services and schools to develop food and nutrition policies and practice and are supported by the Food and Beverage Classification System developed by the Ministry of Health. The Food and Beverage Classification System provides a framework to help early childhood education services and schools make decisions about the healthy foods and beverages they provide. The classification system is consistent with the Ministry of Health’s existing Food and Nutrition Guidelines series covering these age groups. (See appendix 1 for further details.)

Food and Nutrition for Healthy, Confident Kids encourages the whole education community to get involved in creating a positive environment that supports making healthy food choices. Many early childhood education services and schools are already encouraging healthy eating practices and will need to make few changes.

Early childhood education services and schools should take into account any regulations that govern food and nutrition and food hygiene as part of the process of reviewing policies and practices.

WHY EDUCATION ABOUT FOOD AND NUTRITION IS IMPORTANT

Nutrition is fundamental to developing a sense of well-being and to meeting the growth, development, and activity needs of healthy, confident children and young people. Readiness to learn is enhanced when the learners are well nourished.

There is considerable evidence linking children’s nutrition to educational outcomes. If children are malnourished, have nutritional deficiencies, or are obese, then their learning is likely to be affected. Numerous studies in New Zealand and overseas have demonstrated a link between nutrition and learning, and shown the beneficial effects of restoring nutrition to appropriate levels ...


Teachers in early childhood education services and schools report improvements in children and young people’s attendance, attention, behaviour, and levels of concentration where the provision of healthy food and beverages has become normal practice.
A number of research studies now provide credible evidence that effective education about nutrition can motivate and enable children and young people to make food choices that contribute to healthy lifestyles.

In order to adapt their eating habits, children and young people need opportunities to prepare and taste new foods. Learning the practical skills of cooking can help people become critically aware and rely less on pre-prepared foods that are likely to be high in fat, sugar, and salt.

There is a growing recognition that the health of an individual and their health-related behaviours are the product of that individual’s continuous interaction with their environment. This includes the individual’s family, community, culture, social structure, and physical environment. Communities, schools, and parents can work together to help students develop attitudes and skills to make consistent health-related choices.

Food tastes develop at an early age, and encouraging healthy choices early in life can help to create lifelong preferences for healthy foods.

What and when an individual child eats is affected by a number of factors including:

- their knowledge and attitudes about food and health;
- their individual tastes;
- their socio-economic status;
- the education level of their parents/caregivers;
- the availability, affordability, and attractiveness of various food options;
- their culture;
- external influences, such as peer pressure and advertising (see the section Looking Critically at the Food Environment, in the chapter Food and Nutrition in the Curriculum).

Children and young people’s eating habits are often driven by needs other than physiological ones. Most do not eat food just because of its nutritional value. They also eat because they like the taste, because “it’s time”, because it’s what is made available to them or it’s what their friends are eating and, sometimes, because it is what they are able to prepare.

The many interrelated factors affecting what children choose to eat makes it important for them to be able to access accurate knowledge and information about food and nutrition.

**IDENTIFYING PRIORITIES FOR FOOD AND NUTRITION**

The following research findings may help early childhood education services and schools to identify priorities when implementing their food and nutrition policy.

Research suggests that many infants in New Zealand are introduced to solids earlier than the recommended four months of age; begin drinking cow’s milk before the recommended 12 months or older; and are eating foods that are not recommended
before the age of 12 months, such as “regular” breakfast cereals and salted and/or sweetened snacks.

The Ministry of Health’s *NZ Food NZ Children: Key Results of the 2002 National Children’s Nutrition Survey* (2003) of school children aged 5–14 years showed that while many aspects of children’s nutrition in New Zealand are positive, there is also considerable room for improvement in children’s diets. The survey identified that one in five children were overweight and one in ten were obese, and as children got older, their diets became less healthy. For example, younger children ate fruit more often, consumed less sugar and sweets, and had a lower rate of overweight and obesity than older children.

The national children’s nutrition survey also highlighted the importance of the school food and beverage environment for a number of children. The quality of school-produced food is most critical for children who buy food from the school canteen on a regular basis.

It is likely that the dietary patterns of children track into adolescence and adulthood and, therefore, the dietary patterns identified from the 2002 national children’s nutrition survey are likely to be present in older adolescents. This evidence is supported by results from the 1997 national nutrition survey (Ministry of Health, 1999) conducted on people 15 years and over. These showed that only two out of five 15- to 18-year-olds met the recommended number of daily vegetable servings and less than two out of five boys aged 15–18 met the recommended number of daily fruit servings per day. Therefore, adolescents are especially likely to benefit from a healthy food and nutrition environment at school.

Early childhood education services and schools should ensure that the food and beverages they provide are in line with the Ministry of Health’s Food and Beverage Classification System and background papers *Food and Nutrition Guidelines for Healthy Infants and Toddlers (Aged 0 to 2 years)*, *Food and Nutrition Guidelines for Healthy Children Aged 2–12 Years*, and *Food and Nutrition Guidelines for Healthy Adolescents*.

Early childhood education services and schools can use the following information to ensure that the food and beverages they provide are in line with the Ministry of Health’s Food and Beverage Classification System and the Food and Nutrition Guidelines (as listed above).

In early childhood education:

- Don’t introduce solids to babies before they are four months old. The age for introducing solids depends on the baby’s physical development, but is usually between four and six months.

- Give breast milk as the principal fluid to infants under the age of 12 months. If the baby is not being fed breast milk, use an infant formula until the baby is 12 months old.

- Give cows’ milk only to infants over one year old.

- Provide foods and snacks that are appropriate to the child’s age and stage—try not to use too many sweet or salty foods as snacks or at meals.
In primary, intermediate, and secondary schools:

- Encourage children to eat at least three servings of vegetables and at least two servings of fruit per day.
- Provide healthy food and beverage choices in tuck shops, canteens, and vending machines; encourage the sale of reduced-fat milk and milk products instead of sweetened beverages and high-fat and high-sugar snacks (confectionery and biscuits); and encourage the sale of healthy mains (sandwiches) instead of foods high in saturated fat (pies and pastries).
- Encourage children and adolescents to eat breakfast – either at home before school or at school before classes begin.

For information on the recommended dietary patterns for healthy infants and toddlers, children, and adolescents, visit the Ministry of Health’s website at www.moh.govt.nz and for related healthy eating resources visit the HealthEd website at www.healthed.govt.nz

WHY A SUPPORTIVE FOOD ENVIRONMENT IS IMPORTANT

Many early childhood education services and schools are already aware of the important links between food, health, and learning and are taking steps to improve the food and nutrition environment, for example, by providing a pleasant environment in which food and beverages are consumed and by giving consistent, accurate, messages about food.

Children and young people may spend a large proportion of their waking day in early childhood education services or at school. Approximately one-third of their daily food intake is consumed on the premises, and the proportion may be higher for some young children attending all-day early childhood education services. This makes it important that the whole education community is aware of and supports policies guiding food and beverage choices.

The foods and beverages available in the education environment can influence what children eat. The Ministry of Health’s national children’s nutrition survey (2003) reported that 51 percent of children purchased at least some of their food from the school canteen and 5 percent purchased most of their food from the school canteen. However, the majority of children (84 percent) brought their lunches to school.

Policies about what is sold or served on the premises can help to ensure that healthy choices are available. Such policies can provide a framework for all staff and suppliers of food and beverages in education settings and can include requirements governing safety and hygiene. (See appendix 5.)

Positive approaches could include encouraging children and young people to:

- eat at least three servings of vegetables per day – about three out of five children ate three or more servings per day (Ministry of Health, 2003);
- eat at least two servings of fruit per day – about two out of five children ate two or more servings per day;
- have breakfast, either at home before school or at school before class;
• make healthy food and beverage choices by providing healthy tuck shop, 
canteen, and vending machine options, for instance, by not providing foods high 
in saturated fat (biscuits, pies, and pastries) and/or high in sugar (confectionery) 
or sweetened beverages.

Choices about food and beverages can have an impact on the wider environment as 
well as on health. Cooking food from scratch can save money and resources 
because others are not being paid to prepare, package, transport, and advertise the 
meals. Food prepared using fresh ingredients is also healthier and more nutritious. 
Cooking can be a creative and socially important activity.

Research shows that when families eat meals together, children are 
more likely to achieve at school and have fewer health problems.

Teaching and learning opportunities that encourage eating food together can provide 
opportunities to involve communities. Adopting the principles of sustainability can 
also encourage community support, help use local resources, and provide further 
insight into the impact of choices about food and beverages.

Malcolm Riley’s draft dietary guidelines for sustainability include:

*Enjoy eating with other people*
  • *Don’t eat or drink too much*

*Think about the food you eat*
  • *Know where your food is produced and where it comes from*
  • *Make food choices that are good for the environment*
    • *Enjoy minimally processed food that doesn’t need cooking*
  • *Grow some of your own food*
  • *Buy locally produced food in season*

*Think about how you get your food*
  • *Buy food that needs minimal packaging – use long lasting carrier bags*
  • *Optimise your physical activity when doing the shopping.*

(Riley, 2005, pages 2–9)

1 Different early childhood services have different names for the people in charge. In these guidelines, 
in the context of early childhood education, the term “teacher” includes supervisor, parent, kaiāwhina, 
kaiako, leader, educator, caregiver, staff member, or person in charge.
DEVELOPING A FOOD AND NUTRITION POLICY FRAMEWORK

The process of developing or reviewing a food and nutrition policy enables an early childhood education service or school to arrive at a shared philosophy about all aspects of food and beverages sold or served on the premises.

GETTING READY

Things to take into consideration include:

- teaching and learning about food and nutrition that is consistent with Hauora i roto i te Marautanga o Aotearoa and Health and Physical Education in the New Zealand Curriculum or Te Whāriki: He Whāriki Mātauranga m ngā Mokopuna o Aotearoa/Early Childhood Curriculum;
- taking account of the Ministry of Health’s Food and Nutrition Guidelines and meeting the recommendations of the Food and Beverage Classification System; establishing effective partnerships and working towards a common goal, for example, with the school caterer, students, teachers, parents and, if appropriate, local retailers;
- providing equipment, resources, and continuing professional development so that all food service personnel, teachers, nurses, coaches, and other administrative staff have the necessary skills to implement the policy and to promote healthy eating practices;
- establishing criteria for participating in food-related events and initiatives, for example, the Fruit in Schools programme, Health Promoting Schools, 5+ a Day, and the National Heart Foundation’s School Food Programme or its Healthy Heart Award;
- encouraging young people to drink water throughout the day, including in class, and ensuring that they have easy access to drinkable water;
- providing healthy food and beverages, for example, through early childhood education service menus and in school tuck shops, canteens, and vending machines;
- avoiding the use of food and beverages as rewards;
- looking at how food and beverages are consumed on the premises, for example, the children’s eating environment;
- promoting healthy ideas for lunchboxes (including providing information to parents);
- critically reviewing the promotion of food and beverages to children and young people, including through sponsored curriculum materials, advertisements, fundraisers, and sponsorship;
- involving families/whānau in healthy eating activities, for example:
inviting parents to prepare traditional foods, exploring some of the food and meal-based traditions of various cultures, making a lunch at school for a visitor or a special occasion (*Healthy People Eat Healthy Food*, page 18);
- discussing how family roles can impact on well-being (*Choice Food*, page 18);
- holding a healthy choices lunch (*Making Connections*, page 37).

These resources are from the Ministry of Education’s *The Curriculum in Action* series.

**GETTING STARTED**

Develop a vision for a whole-service or whole-school approach to healthy eating.

**Discuss:**
- the benefits of healthy eating;
- the implications of any relevant changes in early childhood regulatory requirements or in the National Administration Guidelines for schools;
- the perceived priorities within your education setting;
- the messages that young people may be receiving about food and beverages, in both the formal and the informal curriculum;
- the support that teaching and non-teaching staff can or do provide;
- the provision of a pleasant, supportive eating environment;
- how to involve children, young people, and the community in making changes.

**Conduct:**
- an audit of the foods and beverages provided in the education setting to identify areas of strength and any concerns, including external influences, that need to be specifically addressed (this could include a student-led initiative);
- an appraisal of food and nutrition units of learning;
- an appraisal of policies or initiatives already in place, for example, Fruit in Schools, “Sportfit” Food and Nutrition policies, Healthy Heart Award;

and publish the results in newsletters or websites.

**Decide on:**
- the needs and priorities relating to food and nutrition in your early childhood education service or school;
- the aims and intended outcomes of your education setting’s policy, based on these priorities;
- goals or indicators of success;
- how to engage parental support and inform and consult leaders in the local community.
Identify:
• possible food-related goals;
• the existing food- and beverage-related issues to be addressed;
• a small working group representative of key stakeholders (for example, staff, students, parents, members of the board of trustees, and management) to develop a draft policy for consultation.

Develop policy:
• The working group drafts a policy that reflects:
  – the recommendations of the Food and Beverage Classification System;
  – the needs of the children and young people in your education setting, as identified through the audit and appraisals;
  – the priorities and values that the board of trustees/senior management team have established.
• In early childhood education services, management and staff work with parents/whānau to establish a workable policy that reflects the needs of the setting. For examples of such policies, refer to the Healthy Heart Award Programme Manual for Early Childhood Centres, page 17, available from the National Heart Foundation.

WHEN WRITING THE POLICY AND IMPLEMENTATION PLAN
• Try to keep the document tight, set realistic goals, and identify who is responsible for implementing and monitoring each aspect (that is, what it means in practice, and where, how, when, and by whom it will be addressed).
• Clearly define the purposes of the food policy (that is, why you are writing the policy) and set out how these will be evaluated.
• Provide support for the policy, that is, an agreed implementation framework (for example, for food served at events) that follows the recommendations of the Food and Beverage Classification System.
• Ensure that policies support teaching and learning about healthy eating. For example, carefully select sponsored resources and products, such as those for vending machines and for fund-raising. Use only food that complies with the classification system. Any sponsorship should support consistent messages about food.
• Identify any training needed to support implementing the policy.

Consult:
• members of the early childhood education or school community about the proposed policy and seek feedback to modify the policy.

Consider:
• any languages into which the policy could usefully be translated.
Implement:

- the policy, which could be launched, for example, by holding a community event or by including the information in the students’ enrolment packs, on websites, or in newsletters, both to inform parents about the policy and to provide ideas for healthy foods that could be provided for lunches and snacks;
- put the policy into practice.

Evaluate:

- set regular times for reviewing and evaluating how far the practice reflects the policy.

SOME EXAMPLES OF FOOD AND NUTRITION POLICY STATEMENTS

A food and nutrition policy provides guidance for the licensee and manager in early childhood education services, or board and principal in schools, about food and nutrition in their learning environments. Developing the policy is their responsibility, in consultation with the community. It is the manager’s or principal’s job to develop more detailed processes to put the policy into action. A policy statement could be as follows.

**Policy Statement**

**Policy Statement**

The board supports and encourages a healthy eating environment and culture in our school.

**Rationale**

We consider that healthy food and beverage choices can enhance educational outcomes.

**Purposes**

- To help young people find accurate and unbiased information about healthy eating.
- To encourage young people to clarify their own ideas about making healthy eating choices.
- To help young people develop the skills they need to make responsible decisions about healthy eating.
- To help young people understand the factors that influence their food and beverage choices and the possible long-term effects of their choices on their well-being.
- To ensure that only food and beverages that enhance young people’s health are sold or served in the early childhood education service or school.
- To provide an environment that encourages and supports healthy eating.
IMPLEMENTING THE POLICY

Actions to implement policies could include the following.

**Actions**

**In the Context of the Curriculum**

- All food and beverages provided or served on the premises will meet the recommendations of the Ministry of Health’s Food and Nutrition Guidelines and the Food and Beverage Classification System.
- Teaching and learning in the context of food will meet the criteria outlined in the Ministry of Health’s Food and Beverage Classification System.
- Adults will be encouraged to model healthy food and beverage choices.

**In early childhood education services:**

- *Te Whāriki/Early Childhood Curriculum* guides food and nutrition education by developing, in the context of self-help and self-care, children’s knowledge about keeping healthy. Adults will ensure that any food and beverage provided meets the Ministry of Health’s Food and Beverage Classification System and Food and Nutrition Guidelines for the relevant age group.

**In schools:**

Food and nutrition education is an integral part of a comprehensive health education programme. Teaching and learning about food and nutrition is based on *Health and Physical Education in the New Zealand Curriculum, Hauora i roto i te Marautanga o Aotearoa*, the Ministry of Health’s Food and Beverage Classification System, and the Food and Nutrition Guidelines for the relevant age group.

The following examples of procedures may be included as part of a policy.

**Procedures**

**In the Context of the Environment**

- All food service personnel, teachers, nurses, coaches, and other school administrative staff will support and promote healthy eating practices.
- Social events will encourage young people to enjoy sharing and eating healthy food and beverages.
- Water will be the preferred beverage.
- Young people will be encouraged to wash their hands before eating and also to eat sitting down.
- We will participate only in food-related events and initiatives that support healthy eating practices, for example, the Fruit in Schools programme, Health Promoting Schools, 5+ A Day, and the Heart Foundation’s Healthy Heart Award and its School Food Programme.
- We will use only those sponsored resources that promote healthy food and beverage options, that is, those in the “every day” and “sometimes” categories of the Ministry of Health’s Food and Beverage Classification System.
• Only those foods and beverages that fit within the “every day” and “sometimes” sections of the Ministry of Health’s Food and Beverage Classification System will be provided or sold on site, for example, in the tuck shop, canteen, or vending machines.

• All food and beverages served or sold at events, for example, at fairs, for fundraising, or at sports events, will fit within the “every day” and “sometimes” sections of the Food and Beverage Classification System.

• Food and beverages will not be given as a reward. Instead, our young people can experience other positive rewards, for example, being allowed to read outdoors, having unstructured time with physical activity equipment, having extra art time, listening to music with a headset while working, or having “free choice” time at the end of the day.

• Our young people will be able to identify, and take action to address, food and nutrition issues in the school.

Policy review date:
Signature:
FOOD AND NUTRITION IN THE CURRICULUM

All young people need to be able to make food and beverage choices based on their cultural preferences and on sound knowledge and information. Children and young people need to understand the importance of food and nutrition to all aspects of their health and well-being, including their mental, physical, and emotional health. They need to be able to interpret the many messages they receive and to make choices about changing their own eating patterns rather than being told “what is good for them”. They can also influence the eating patterns of others in their environment.

Being able to prepare, cook, and serve food is an important part of making choices about food. Being able to cook enables young people to have more control over what they eat. Preparing and cooking food provides opportunities to taste new foods and to understand the composition of food and the way ingredients behave during cooking. It enables the transfer of knowledge in real contexts, for example, by using numeracy when calculating ingredients, budgeting, or interpreting food labels. Students can also develop their creativity and experience a sense of accomplishment. Sharing food with others can help develop social skills.

A number of teaching and learning approaches have brought about improvements in eating habits. These include:

- whole-service or school-wide programmes supporting healthy eating;
- sequential, comprehensive, curriculum-based learning that is fun;
- selling or serving food, in the education setting, that supports the principles of healthy eating and acknowledges the cultural diversity of the children and young people;
- providing relevant professional development for staff;
- involving families, whānau, caregivers, and community;
- reflecting on policies and processes and evaluating these.

TE WHĀRIKI/EARLY CHILDHOOD CURRICULUM

Four broad principles are at the centre of Te Whāriki, the early childhood curriculum:

- empowerment – the early childhood curriculum empowers the child to learn and grow;
- holistic development – the early childhood curriculum reflects the holistic way children learn and grow;
- family and community – the wider world of family and community is an integral part of the early childhood curriculum;
- relationships – children learn through responsive and reciprocal relationships with people, places, and things.

The first goal of the Well-being strand of the curriculum states that “Children experience an environment where their health is promoted.” This goal provides a
context in which children can develop a disposition to make health-related choices, including those of food selection and physical activity.

The focus is on providing experiences that can help children learn how to stay healthy and how to develop self-help and self-care skills. Children can develop working theories about nutrition, for example, they may begin to develop skills in food preparation, to develop knowledge of healthy food choices, and to understand the cultural importance of certain foods.

*Te Whāriki* recognises that the child’s learning environment extends far beyond the immediate setting or early childhood education service.

**HEALTH AND PHYSICAL EDUCATION IN THE NEW ZEALAND CURRICULUM – FOOD AND NUTRITION**

The food and nutrition key area of learning in *Health and Physical Education in the New Zealand Curriculum* states that:

*Effective food and nutrition education is reinforced by a school environment that encourages healthy eating, promotes safe food-handling practices, and makes use of community support.*

Ministry of Education, 1999b, page 40

Best-practice teaching and learning about food and nutrition includes opportunities to critically evaluate the techniques and approaches used to influence food choices. Through curriculum-based teaching and learning, using health promotion approaches, students can develop the knowledge and skills to take action about their own food choices and to have a positive influence on those of others.

**UNDERLYING CONCEPTS IN THE CONTEXT OF FOOD AND NUTRITION**

The underlying concepts of *Health and Physical Education in the New Zealand Curriculum* and *The New Zealand Curriculum: Draft for Consultation 2006* guide approaches to food and nutrition in schools and provide a framework for teaching and learning.

**Hauora**

Hauora, a Māori philosophy of well-being, includes four dimensions that influence and support each other. In relation to *Food and Nutrition for Healthy, Confident Kids*, these dimensions can be described as follows. Taha tinana, or physical well-being, includes food consumed for physical health, growth, and development; a balance of the required nutrients; and adequate hydration. Taha hinengaro, or mental and emotional well-being, encompasses the cultural traditions and mental and emotional influences on food choice. Taha whānau, or social well-being, identifies the influence that family and whānau have on food consumption, including celebrations, through the gathering, preparing, and sharing of food with others and the role of food in building relationships or social well-being. Spiritual well-being, or taha wairua, can include the specific meanings food conveys to individuals.

**Health Promotion**

Health promotion\(^2\) is a process that involves young people in taking personal and collective action and includes accurate and appropriate construction and application
of knowledge. Children and young people can use strategies and actions designed to improve health and quality of life by:

- researching and analysing the well-being needs of groups, communities, and society;
- identifying ways to meet these needs;
- planning appropriate action;
- taking action, either individually or collectively (for example, to have healthier snacks available in the tuck shop or canteen);
- reflecting on the actions they have taken and evaluating their effectiveness.

Working in the context of health promotion enables young people to experience making autonomous decisions about food that can enhance their own health and that of others. When they make decisions for themselves, they are much more likely to develop a commitment to choosing healthy food and a balanced and varied diet based on wise food choices.

Teaching and learning approaches that encourage student involvement in health-promoting approaches can be found in the chapter Teaching and Learning.

**Socio-ecological Perspective**

Taking a socio-ecological perspective helps young people understand how the aspects of well-being are influenced by social and environmental factors and by other people. “Through learning experiences that reflect the socio-ecological perspective, students can seek to remove barriers to healthy choices” (Health and Physical Education in the New Zealand Curriculum, page 33). For example, choices about food and beverages can be shaped or influenced by factors such as advertising, ethnic or cultural traditions, food costs, and the food available. Such learning experiences encourage students' self-reflection and critical thinking and can lead to positive action for themselves and others. (See the section Competencies in this chapter.)

**Attitudes and Values**

Curriculum-based teaching and learning encourages students to acknowledge the diverse ways in which people meet their needs for food and nutrition and to develop their own attitudes, values, and commitment to making healthy food choices.

**HEALTH PROMOTION APPROACHES**

Health promotion processes that involve children and young people in making choices about what is sold or served can encourage their commitment to consuming healthier foods.

In early childhood education services, this could include:

- providing children with a platter of fruit and/or vegetables from which to choose their morning tea;
- giving menu-planning information to parents so that they can give feedback on the weekly lunch menu to ensure that it offers children a balanced range of food and beverage choices.
In schools, this could involve students in:

- assessing the school’s lunch menu or “order-in” system against Ministry of Health Food and Nutrition Guidelines;
- surveying other students and parents;
- developing and testing appropriate products;
- producing marketing materials;
- considering environmental issues, such as sustainability, that can influence food choices.

Health promotion processes provide a framework for young people to use as they become competent in activities centred on addressing food and nutrition issues. This approach also provides opportunities for community members to work with local agencies to support in-school and/or early childhood education initiatives in accordance with their nutrition policy.

Involving young people in identifying or selecting issues to address gives them a greater sense of purpose and ownership. When an issue has been agreed on, young people can engage in the action learning process.

**ACTION LEARNING HEALTH PROMOTION PROCESS**

Use critical thinking to explore the issue, for example, by discussing with students:

- What food is available or sold on the premises?
- Are their needs for healthy eating being met?
- What foods are served at celebrations?
- Whose interests are being served?
- Who has the power in a given situation?
- Who is being advantaged?
- Who is not being heard or their interests served?

Engage in creative thinking – what alternatives are there?

Visualise how things could be, including how to engage stakeholders, to help consider what improvements could be made to available food.

Gather, analyse, and evaluate ideas about the issue

Determine what is possible and identify what could help students to achieve their goal (enablers) and what could hinder them (barriers).

Develop a plan of action – either individual or collective
Implement the plan of action, designed to overcome the barriers and achieve goals or changes.

Reflect on the outcome(s)
Evaluate and identify what students have learned from the experience and consider further issues that may arise.

Based on Tasker, 2000, page 10

**ACTION LEARNING HEALTH PROMOTION PROCESS**

**COMPETENCIES**
Young people involved in health-promoting approaches also adopt a socio-ecological perspective, developing and applying a range of competencies.
These competencies include:

- managing self – acquiring the basic skills of cooking, shopping, and budgeting, making plans and informed choices for taking collective action, and meeting challenges to create supportive healthy food environments;
- relating to others – as students work collectively to achieve goals, solve problems, or address issues;
- participating and contributing – collectively with peers and/or the education community to address food and nutrition issues;
- thinking about principles of food and nutrition, the implications and outcomes when taking action, reflecting on the actions they have taken, evaluating their effectiveness, and deciding on any further action;
- using the language, symbols, and texts of food and nutrition as students communicate or take action in a particular context, for example, when interpreting food labels;
- preparing, cooking, and serving food in contexts designed to promote their own health or that of others.

TECHNOLOGY IN THE NEW ZEALAND CURRICULUM – FOOD TECHNOLOGY

Food and nutrition is one of the key knowledge bases underpinning food technology. The topic of healthy food can be a focus for students’ learning in technology and can provide them with rich learning based on a range of practical experiences. Young people can develop their technological literacy in the context of food technology. For example, students can:

- develop their technological practice through experimenting, modifying, trialling, and evaluating outcomes to develop healthy food products that meet specific needs;
- acquire technological knowledge about the composition, properties, and performance of ingredients as they explore product feasibility in terms of the function and performance of ingredients and of food during cooking and preparation;
- develop their understandings of the nature of technology as they consider their own technological practice in food-related contexts.

Within technological practice, students learn to use empowering processes. Students can develop and adapt foods that are enjoyable and healthy for sale in the school.

Teaching young people the techniques of testing and evaluating food helps develop their powers of description. They can come to understand how subjective qualities are used in evaluative studies to ensure different markets are catered for.

Children and young people also have opportunities to develop understandings of and tolerance for the specific needs of others, such as those following vegetarian or gluten-free diets or diets determined by religious beliefs.
LOOKING CRITICALLY AT THE FOOD ENVIRONMENT

Teaching and learning about food and nutrition needs to include opportunities to critically evaluate the techniques and approaches used to influence food and beverage choices.

In schools, students’ decisions about food and beverage purchases are often determined by what is sold at the canteen or tuck shop or from vending machines, where choice may be influenced through sponsorship deals.

Other external influences that may affect food and beverage choices include:

- television advertisements featuring foods and beverages that are high in fat, salt, and sugar during children’s viewing times;
- sponsorship of events by food and/or beverage companies;
- sponsored reading programmes using food as rewards;
- free toys and cartoon characters being used to “sell” food and beverages to children.

Fund-raising activities often serve to heighten the visibility of certain foods because they frequently involve children selling (and consuming) items that are high in fat, sugar, and/or salt.

RESOURCING THE CURRICULUM

Many learning materials and prepared programmes on food and nutrition are available to support teaching and learning. Some are specifically for the use of the classroom teacher, some are for teacher reference, and some are for young people to use. The Online Learning Centre – Te Kete Ipurangi (TKI), the Ministry of Education’s website at www.tki.org.nz, is a useful source of information and ideas about learning materials. The Ministry’s The Curriculum in Action series is another set of useful classroom resources. The Home Economics and Technology Teachers Association of New Zealand may be contacted for advice about food- and nutrition-related learning materials (contact details can be found at Health and Physical Education Online on the TKI website).

The most important criterion for selecting learning materials is that they meet the learning needs and interests of young people while being consistent with the service’s or school’s food and nutrition policy. Many teachers select activities from a variety of learning materials and develop their own programmes. Others use prepared programmes and modify them to suit their young people’s needs.

Many educational materials are supplied or sponsored by the food and beverage industry. These materials fall into three categories: nutrition-related resources, industry information, and product or brand promotion – often a combination of these. They are nearly always provided free of charge, and their format varies widely from content-only to highly developed lesson plans along with supporting content material. Increasingly, the materials are available online as well as in hard copy or on CD-ROM.
This material may seek to influence young people’s brand choice. Ideally, all commercially prepared resources should be assessed to ensure that they support the principles of healthy eating.

SELECTING SPONSORED MATERIALS
Teachers planning to use a sponsored resource need to consider whether the resource supports the curriculum focus and objectives they have selected.

Before selecting learning materials, such as videos, pamphlets, posters, and books, consider the following:

- Will using this material enhance teaching and learning about food and nutrition and complement our food and nutrition policy?
- Does the material reinforce the principles of healthy eating?
- Will the material be available when it is needed?
- Is the use of the material time-effective?
- Do the messages in the materials carry a particular bias? Do they focus on the producer’s brand rather than educational approaches?

SELECTING PREPARED PROGRAMMES

- Can the programme be previewed before purchase?
- Is the programme relevant to the New Zealand context?
- Does the style of the resource enable health-promoting approaches to be used, or is it “informational”?
- Are the foods or beverages associated with the programme low in fat, salt, and sugar?
- Does the programme complement our health education and food and nutrition education policies and principles?
- Is the programme inclusive? Does it meet the needs of all young people and reflect diverse cultural needs?
- Are the aims and objectives of the programme clearly defined, and can they be evaluated?
- Can assessment opportunities be identified in the programme?
- Are the recommended activities appropriate to the students’ learning levels and cultures?
- Do we have access to any other learning materials referred to in the programme?

2 The process of health promotion described in *Health and Physical Education in the New Zealand Curriculum* is derived from the Ottawa Charter.
TEACHING AND LEARNING
Providing opportunities for children and young people to practise health-promoting behaviour enables them to take or lead action to bring about change and enhances their motivation to learn, their ownership of the learning, and its relevance to them. Working in contexts that are based on personal, organisational, or community needs helps children to develop knowledge in meaningful ways.

EARLY CHILDHOOD EDUCATION SERVICES
Teachers and educators in early childhood education services play an important role in fostering knowledge and understanding about healthy food and nutrition and in providing opportunities for children to make healthy choices. The four principles of *Te Whāriki/Early Childhood Curriculum* underpin practices in early childhood education services and provide a basis for including food and nutrition guidelines.

EMPOWERMENT – WHAKAMANA
Children are empowered to make choices about healthy food and nutrition, for example, by preparing, serving, and eating food; finding out which foods are healthy; and making choices from those provided.

RELATIONSHIPS – NGA HONONGA
Learning about healthy food and nutrition choices is promoted through responsive and reciprocal relationships with people, places, and things in the early childhood education service, for example, through growing, harvesting, and sharing vegetables and fruit and using the produce when cooking with the children. This provides them with a range of learning opportunities as well as encouraging them to make healthy food and beverage choices.

FAMILY AND COMMUNITY – WHĀNAU TANGATA
Involving the family, whānau, and community is an integral part of supporting and promoting healthy eating choices, for example, by discussing and experiencing culturally diverse foods, providing parents with feedback sheets about vegetables the children are eating, or tips about how to encourage vegetable consumption at home.

HOLISTIC DEVELOPMENT – KOTAHITANGA
Making connections with healthy food and nutrition choices affects aspects of the children’s learning and development, for example, by serving a balance of familiar and unfamiliar foods and establishing routines around mealtimes that encourage enjoyment.

Possible experiences for children in early childhood education services that clearly link food and nutrition with the strands and goals of *Te Whāriki* can be found in *Under 5’s Nutrition: Activities and Guidelines for Early Childhood Educators Incorporating Te Whāriki* (Grant, 1997, pages 5–6).
PRIMARY SCHOOLS

Teachers of years 1–8, working in the context of *Health and Physical Education in the New Zealand Curriculum*, can focus teaching and learning on a variety of ways to improve nutrition. What students and teachers choose to focus on can be identified in a number of ways, including student needs and evidence gained from New Zealand-based studies, for example, the *Key Results of the 2002 National Children’s Nutrition Survey* (Ministry of Health, 2003).

The following example of a planned unit of learning shows how a teacher could use the health promotion process to provide a teaching and learning framework. This example is designed to address the issue of needing to increase students’ vegetable consumption.

**Levels 1 and 2: Example of a Unit of Learning**

**KEY LEARNING.** Unpack the following points with students to co-construct success criteria:
- discussing and developing an understanding of how food choices affect our health, growth, and physical development;
- expressing ideas, needs, wants, and feelings;
- taking individual and collective action to bring about change.

<table>
<thead>
<tr>
<th>INTENDED OUTCOMES</th>
<th>ACTION LEARNING PROCESS</th>
<th>POSSIBLE LEARNING EXPERIENCES</th>
<th>POSSIBLE ASSESSMENT OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Health and Physical Development: Personal Growth and Development</strong></td>
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<tr>
<td>Students will ask questions about how food and beverage choices affect their health, growth, and development.</td>
<td>Use critical thinking to explore the issue.</td>
<td>Look at pictures of vegetables and identify those that they eat/do not eat. Talk about: – memories of times when they have enjoyed a particular vegetable; – why vegetables are important; – the placement of vegetables on the Food and Beverage Classification System; – what a “portion” of vegetables looks like.</td>
<td>The students identify how the choices they make about eating vegetables can influence their well-being and explain what affects their choices.</td>
</tr>
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</table>

| **Personal Health and Physical Development: Personal Growth and Development** | | | |
| | Students will identify their personal needs and wants in relation to recommended “veggie” | Engage in creative thinking. | Does our class eat enough vegetables? Make a class collage of vegetables liked. | The students compare their own intakes with class results and set personal “vegetable
Record vegetables eaten by the class in one day. Analyse results on a bar graph. Does the class on average eat at least three servings of vegetables a day?

**Relationships with Other People: Interpersonal Skills**

| Students will clearly express their own ideas, needs, wants, and feelings about the help needed to support their personal vegetable goal and listen to those of other people. | Analyse the issue and their ideas. | Class brainstorm – how could they try to eat more vegetables or try new vegetables, and what support and help would be needed to do this? | The students describe the support they need and support others to reach their personal vegetable goal. |

**INTENDED OUTCOMES**

| ACTION EARNING PROCESS | POSSIBLE LEARNING EXPERIENCES | POSSIBLE ASSESSMENT OPPORTUNITIES |

**Healthy Communities and Environments: Rights, Responsibilities, and Laws and People and the Environment**

| Students will take individual and collective action to contribute to an eating environment that encourages them to eat and enjoy vegetables. | Develop and implement a plan of action. | Use the action learning process with the class to plan and carry out making a pot of soup or a salad, or having a vegetable-tasting session the whole class can share at lunchtime. Discuss suitable vegetables to bring to school, who will bring each item, and how they will be prepared and served to help make the experience enjoyable. (Involving parents in the preparation and/or eating of the lunch can be a good way of promoting healthy eating to the wider community.) | Students share vegetable preparation tasks and eat lunch in a supportive environment. |

**Healthy Communities and Environments: Rights, Responsibilities, and Laws and People and the Environment**

| Students will explore how sharing attitudes, values, and actions when preparing food together contributes to an environment that | Reflect on the outcome(s). | Talk about:  
- the flavour and texture of the vegetables;  
- how this compared | The students describe how working together and sharing through the context of food helps them to try and |
<table>
<thead>
<tr>
<th>promotes and supports healthy food and beverage choices.</th>
<th>with others they may have tried;</th>
<th>enjoy vegetables.</th>
</tr>
</thead>
<tbody>
<tr>
<td>– how it felt to be eating together and how they contributed to the experience;</td>
<td>– other ways they could try to eat more vegetables;</td>
<td>– how others reacted to new foods they tried.</td>
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<tr>
<td>– ways they could help others to experience enjoying vegetables;</td>
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**INTERMEDIATE AND SECONDARY SCHOOLS**

Many changes have already been made in intermediate and secondary schools that use health-promoting approaches to develop school food and nutrition policies. Some of these have arisen from learning assessed against NCEA achievement standards.

Examples of changes include:

- forming school committees involving students, staff, the tuck shop or canteen manager, the facilities manager, the health education co-ordinator, and parents to address food and nutrition in the school;
- working closely with students, canteen staff, and facilities managers to remove all soft drinks with a high sugar content and all high-fat foods from the school;
- providing or redesigning water fountains and filters around the school;
- after community-wide consultation, deciding to no longer use chocolates as a fund-raiser for the school (see appendix 3 for fund-raising ideas).

**TEACHERS WITH RESPONSIBILITY FOR FOOD AND NUTRITION CAN:**

- make teaching and learning about choosing and preparing healthy food an integral part of the curriculum from years 1–13. “Our students are now used to it and are finding healthy food and drink is nice after all.”
- circulate handy hints for healthy lunches, developed as part of teaching and learning, through school newsletters.

The following plan demonstrates how one home economics teacher has used the action learning process to decide on, and address, an issue identified as a result of a class survey of eating and activity.

**Levels 4 and 5: Example of a Unit of Learning**
**KEY LEARNING.** Unpack the following points with students to co-construct success criteria:
- how food-related factors affect their well-being;
- developing skills to manage change, overcoming barriers;
- influences on food choices;
- taking individual responsibility and collective action to bring about change.

<table>
<thead>
<tr>
<th>INTENDED OUTCOMES</th>
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<th>POSSIBLE ASSESSMENT OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Health and Physical Development: Personal Growth and Development</strong></td>
<td>Students will identify food-related factors that affect their well-being.</td>
<td>Identify an issue.</td>
<td>The students identified food choices that could influence their well-being.</td>
</tr>
<tr>
<td></td>
<td>Students analysed the survey results, finding that a number of students in their year 10 home economics class:</td>
<td>Students analysed the survey results, finding that a number of students in their year 10 home economics class:</td>
<td>The students identified food choices that could influence their well-being.</td>
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<tr>
<td></td>
<td>- did not eat breakfast;</td>
<td>- did not eat breakfast;</td>
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<td></td>
<td>- made nutritionally poor choices for lunch and snacks.</td>
<td>- made nutritionally poor choices for lunch and snacks.</td>
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<tr>
<td><strong>Healthy Communities and Environments: Societal Attitudes and Beliefs</strong></td>
<td>Students will investigate and describe how choices about food can contribute to their own well-being and that of others.</td>
<td>Develop knowledge and insight.</td>
<td>Students described:</td>
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<td>Students:</td>
<td>Students:</td>
<td>Students described:</td>
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<tr>
<td></td>
<td>- recorded how the issue was identified through student responses to surveys;</td>
<td>- recorded how the issue was identified through student responses to surveys;</td>
<td>- the positive influences of healthy food choices on their own health and that of others;</td>
</tr>
<tr>
<td></td>
<td>- compared their findings with NZ Food NZ Children research showing that 79% of girls and 86% of boys usually had something to eat before they left home in the morning for school;</td>
<td>- compared their findings with NZ Food NZ Children research showing that 79% of girls and 86% of boys usually had something to eat before they left home in the morning for school;</td>
<td>- how some students may disadvantage their health by making inappropriate choices.</td>
</tr>
<tr>
<td></td>
<td>- investigated how student health, both now and in the future, could benefit from improved breakfast and snacking habits;</td>
<td>- investigated how student health, both now and in the future, could benefit from improved breakfast and snacking habits;</td>
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<tr>
<td></td>
<td>- considered why and how students in the class may be disadvantaged by the choices they made.</td>
<td>- considered why and how students in the class may be disadvantaged by the choices they made.</td>
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</tbody>
</table>
Students will develop effective self-management strategies for making food choices.

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Healthy Communities and Environments: Societal Attitudes and Beliefs and Relationships with Other People: Interpersonal Skills</td>
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</table>
| Students will investigate social influences on food choices. Students will demonstrate a range of interpersonal skills to overcome barriers to making healthier food choices and eating breakfast regularly. | Develop understanding, analyse the issue, and evaluate their ideas. | In groups, students identified and discussed:  
- the barriers to the possible changes;  
- the enablers that could help overcome these. | When making changes in food choices, students could identify:  
- personal barriers to change;  
- ways to overcome these. |
| Possible barriers to making changes | Eating different foods – unfamiliar tastes  
Negative perceptions of “healthy food”  
Resistance to change – own and that of parents  
Television and media messages | Enablers to help overcome the barriers | In class, exploring alternatives for better choices  
Resources showing fat content and links between diseases and diet  
Supporting each other to make changes |
| Healthy Communities and Environments: People and the Environment |
| Students will investigate and evaluate their own responsibilities for choosing healthier food, including eating breakfast regularly, and ways in which the school community can support them to meet their goals. | Develop and carry out a plan of action. | They developed their plan of action by:  
- exploring the benefits of eating healthy breakfasts (using Internet and library resources);  
- investigating and trying out healthy practical options for breakfast and snacks in practical classes.  
As a class, they put the plan into action, setting goals to:  
- increase the number of | Students supported each other by sending text messages to remind their “buddies” to have breakfast, and they shared information about breakfasts and healthy snacks they had enjoyed. |
Students in the class eating breakfast;
- improve personal food choices for lunch;
- improve personal food choices for snacks.

Students:
- set a time frame, for example, Start date: beginning of term 2, Finish date: end of term 3, Follow-up in term 4;
- set personal goals, planning how they would meet them, and identifying the support they may need to do so.

**Personal Health and Physical Development: Personal Identity and Self-worth**

Students will investigate and describe ways in which individuals define how their personal sense of self-worth was influenced by working towards goals to improve their food choices.

**Reflect on the outcome(s).**

Students gathered feedback and found that most students in the class were:
- eating breakfast regularly and choosing foods wisely;
- making better choices at lunchtime from the school canteen menu;
- keen to extend the work in term 4 and to look at bringing about similar changes school-wide.

Teachers reflected on improved behaviour in classes.

At report interviews, parents made positive comments about changes in attitude and behaviour as well as improved food choices at other times.

Student reflections acknowledged the positive outcomes of choosing a lifestyle that supports healthy eating.

Health promotion techniques used in this plan included the:

*Self-empowerment model*

"People are encouraged to engage in critical thinking and critical action at an individual level" (Ministry of Education, 2004, page 14).

*Collective action model*

"This model encompasses ideas of community empowerment, which requires people [to take action] individually and collectively..." (Ministry of Education, 2004, page 14).
EAT WELL, PLAY WELL

This next example demonstrates how a student-led initiative in one suburban college brought about significant changes in eating in that school community.

The learning experience began with a member of the school’s first XV rugby team wondering why, although the team practised hard and regularly, they seemed to “run out of steam” halfway through a game. The student also observed that many in the team seemed to consume a good deal of junk food, especially sweet food and sports beverages. He discussed his observations with the team’s coach, and together they planned ways of establishing the extent of the problem and addressing it.

Levels 4 and 5: Example of a Unit of Learning

<table>
<thead>
<tr>
<th>KEY LEARNING</th>
<th>Unpack the following points with students to co-construct success criteria:</th>
</tr>
</thead>
<tbody>
<tr>
<td>– There are external factors that affect physical performance.</td>
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<tr>
<td>– Personal and collective action can bring about changes.</td>
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<tr>
<td>– The students will use a range of interpersonal skills and processes that support appropriate choices.</td>
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<tr>
<th>INTENDED OUTCOMES</th>
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</thead>
<tbody>
<tr>
<td>Healthy Communities and Environments: People and the Environment</td>
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<tr>
<td>Students will investigate and evaluate aspects of school and home environments that could affect physical performance.</td>
<td>Use critical thinking to explore the issue.</td>
<td>The team carried out a “lifestyle survey” recording the food and beverages they consumed and the physical activity they were involved in over a two-day period. They analysed the results using Food Choices the IT Way available at <a href="http://www.xyris.com.au/food_choices/default.htm">www.xyris.com.au/food_choices/default.htm</a> Using this information and the ACC SportSmart chapter Hydration and Nutrition, available online at <a href="http://www.acc.co.nz/wcm001/groups/external_communications/documents/internet/wcm001133.pdf">www.acc.co.nz/wcm001/groups/external_communications/documents/internet/wcm001133.pdf</a> the team identified, both individually and collectively, possible problem areas and improvements that could be made.</td>
<td>The students identified factors that can influence sporting performance.</td>
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<tr>
<td>Healthy Communities and Environments: Community Resources</td>
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<tr>
<td>Students will investigate community services that support and promote performance.</td>
<td>Engage in creative thinking.</td>
<td>In groups, the team members used the Hydration and Nutrition chapter in the ACC SportSmart resource for coaches, available online at <a href="http://www.acc.co.nz/wcm001/groups/external_communications/documents/internet/wcm001133.pdf">www.acc.co.nz/wcm001/groups/external_communications/documents/internet/wcm001133.pdf</a> to identify credible information about healthy, affordable choices for the team for food and hydration that could enhance their play. Using the recommendations from these resources, they identified the changes that they thought they needed to make. Team members then brainstormed, in groups, possible solutions to present to the team.</td>
<td>The students could extrapolate information from appropriate resources and use this to develop possible solutions.</td>
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| Healthy Communities and Environments: People and the Environment |
| Students will investigate and analyse the issue and barriers to making the possible changes and Students could identify barriers to | Analyse the issue and barriers to making the possible changes and Students could identify barriers to | The team identified and discussed the barriers to making the possible changes and Students could identify barriers to |
evaluate aspects of the school and home environments that affect young people’s choices about food.

<table>
<thead>
<tr>
<th>Possible barriers to making changes</th>
<th>Enablers to help overcome the barriers</th>
<th>change and suggest possible solutions.</th>
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<tr>
<td>Players like and enjoy the high-sugar foods, and these are easy to access. The high-sugar “sports” beverages are donated free to the team. Some players drink “energy” beverages containing caffeine, which promotes water loss. The after-match food provided includes high-sugar items. Players’ everyday food lacks adequate protein for their body size. They don’t know what they need to do to bring about changes. They lack time to prepare healthy foods.</td>
<td>Making a commitment to support each other to make changes, based on such knowledge as: – Consuming a high-carbohydrate (starch) diet for a few days before competition can improve endurance capacity for events lasting longer than one hour. – Eating a low-fat meal containing 200–300 g of carbohydrate during the three to four hours before matches tops up the muscle stores and maintains blood glucose levels. – Asking those providing after-match food to supply low-fat savouries rather than sweet foods.</td>
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*Healthy Communities and Environments: Community Resources and Relationships with Other People: Interpersonal Skills*

| Students will take action to enhance personal and group involvement in improving the food environment. Students will demonstrate a range of interpersonal skills and processes that help in making appropriate choices about food in the school sports environment. | Develop a plan of action. | Players looked at their own lifestyle surveys in pairs and, using the information in the SportSmart resource, noted where individual improvements needed to be made. In pairs, they worked out how this could be managed and how to overcome any barriers. Each team member made a personal commitment to change at least one food or beverage they consumed to help improve their performance. The team captain wrote a letter to the team’s supporters who provided the after-match food, suggesting some more suitable low-fat, low-sugar alternatives, and also asked the team manager if they could be supplied with a piece of fruit at half-time. A small group worked out a team plan for suitable beverages before, during, and after games. They looked at the nutrition labelling on sports beverages and identified some that met the ACC guidelines. They asked the company supplying free beverages containing caffeine to cease doing so or to provide suitable alternatives that met the | Students took action to bring about personal improvements in their food and beverage choices. Collective action was taken to bring about wider changes. A range of interpersonal strategies was used appropriately to support change. |
ACC guidelines. The whole group brainstormed some templates to put on their cellphones to remind each other to keep to their personal commitments.

### Personal Health and Physical Development: Personal Identity and Self-worth

| Students will describe how personal and collective action to improve food choices influences a sense of self-worth. | Reflect on the outcome(s). | After following the new food and beverage regime for a month, the team met after practice to identify:  
- the outcomes of working together to collectively overcome barriers when making enhanced food choices;  
- how they managed their personal commitment to choose performance-enhancing food and beverages;  
- positive outcomes of the changes made and any differences experienced during play;  
- match results!  

The team member who began to identify the influence on his team’s endurance talked to home economics students commencing the level 2 achievement standard “Examine the nutritional considerations of people with high energy needs” about the team’s related experiences. | Students reflected on how their performance improved in relation to the commitment to making changes to what they ate and related this to their own sense of self-worth. |
APPENDICES

APPENDIX 1: FOOD AND BEVERAGE CLASSIFICATION SYSTEM FOR EARLY CHILDHOOD EDUCATION SERVICES AND SCHOOLS

WHAT IS THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM?
The Food and Beverage Classification System is intended as a practical tool to guide early childhood education services and schools in implementing the Ministry of Education’s guidelines Food and Nutrition for Healthy, Confident Kids. It identifies healthier food and beverage options for children that early childhood education services and schools can provide or sell and promote during the operation of early childhood education services and during the school day.

WHAT DOES THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM LOOK LIKE?
The Food and Beverage Classification System is based on a three-tiered approach, identifying foods and beverages that can be eaten:
- **every day**: appropriate for everyday consumption and to be promoted;
- **sometimes**: for restricted provision by early childhood education services or schools (for example, restricted serving size);
- **occasionally**: not for provision (through sale or otherwise) by early childhood education services or schools (other than for exceptional events).

WHAT AGE GROUPS DOES THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM APPLY TO?
The Food and Beverage Classification System applies to all food and beverages appropriate for children aged three months to 18 years; however, there will be separate resources for pre-school-aged and school-aged children.

HOW DOES THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM CLASSIFY FOODS AND BEVERAGES?
The Food and Beverage Classification System is based on the Ministry of Health’s Food and Nutrition Guidelines, which identify healthy eating habits for children and young people.

In order to classify food and beverages into the three categories, a food- and nutrient-based approach is being used. This means that there are nutrient criteria for different food groups within the three categories.

Users are not expected to interpret the nutrient criteria themselves. Lists of foods and food groups that are appropriate for children will be available, along with other supporting materials.
WHO IS THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM DESIGNED FOR?
The Food and Beverage Classification System will provide guidance for food and beverages prepared on site at early childhood education services and schools, as well as any pre-made food and beverages purchased or provided.

The target audience includes students, teachers, early childhood education service supervisors, principals, canteen managers, food-preparation staff, food suppliers, parents, school boards, and the wider school community. The Food and Beverage Classification System and the associated resources are designed to assist these groups.

WHAT KINDS OF FOODS WILL THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM INCLUDE?
The Food and Beverage Classification System classifies the types of foods and meals that are relevant to children’s nutritional needs and eating habits and the type of education setting that they attend.

HOW WILL THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM WORK FOR MAORI AND PASIFKA PEOPLE?
The Food and Beverage Classification System was designed with input from Māori and Pasifika people. All resources are relevant to these groups and include specific cultural foods.

WERE THERE ANY OTHER ISSUES THAT NEEDED TO BE TAKEN INTO ACCOUNT IN DESIGNING THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM?
The Ministry of Health recognises that care needs to be taken around the delivery of nutrition messages associated with this classification system. For many children and young people, messages that associate certain foods with “guilt” or “danger” are not helpful.

A classification system also needs to be able to evolve over time, due to changes in food technology, eating habits, research, and early childhood and school requirements.

The cooking or kitchen facilities available in early childhood education services and schools vary considerably. These differences have been considered during the development of the Food and Beverage Classification System.

HOW ARE ECE SERVICES AND SCHOOLS BEING ASSISTED TO IMPLEMENT THE FOOD AND BEVERAGE CLASSIFICATION SYSTEM?
The Ministry of Health has identified and is developing a number of different resources. These include lists of appropriate foods and beverages (which will be available through different media, such as web-based formats and in hard copy), catering guidelines for food prepared on site, and posters for easy reference.

In addition, training programmes are being developed to support the Food and Beverage Classification System and the Ministry of Education’s Food and Nutrition
for Healthy, Confident Kids: Guidelines to Support Healthy Eating Environments in New Zealand Early Childhood Education Services and Schools.

APPENDIX 2: IDEAS FOR SUPPORTING HEALTHY EATING PRACTICES

Many communities have successfully carried out food and beverage initiatives involving young people, families and whānau, teachers, food and beverage suppliers, and the wider community. As a result, the food and beverages consumed in these communities are healthier, and healthy options are more popular with children and young people.

Early childhood education services and school communities can actively help to support a healthy food environment by:

- implementing the Ministry of Health Food and Beverage Classification System in their education setting;
- providing teaching and learning opportunities that support and encourage healthy eating;
- providing young people with opportunities to engage in regular physical activity;
- creating environments that support healthy food and beverage choices;
- modelling healthy eating practices;
- using whole-service and whole-school approaches to influence the suitability of food and beverages consumed on the premises;
- engaging with their community to make “local rules” about food and beverages in early childhood education services and self-governing schools (for example, some schools have become “water only” zones);
- consulting parents and involving them in healthy eating activities and initiatives, for example, in providing healthy food at a gala day or for a shared class lunch (appendix 4 gives some ideas for simple changes that can encourage healthy eating);
- suggesting to parents ideas for rewards other than food, for example:
  - a visit to the park or trip to the local museum with the family;
  - extra stories or books at bedtime;
- inviting a local public health dietitian or Health Promoting Schools co-ordinator to facilitate an evening for parents, involving them in an “ideas for healthy lunches” meeting (with some opportunities for tasting!);
- finding further case studies on www.tki.org.nz and adding their own good news stories, recipe ideas, and links to other resource ideas;
- making a wide variety of vegetables, fruit, and other healthy foods available for children to try and retry in teacher- and parent-led early childhood education services where providing healthy food is part of the everyday culture;
- encouraging water consumption throughout the day;
• in early childhood education services, children and staff sharing their lunchtime together and eating fruit and vegetables brought from home;

• in primary schools, having students sit down for the first 10–20 minutes of lunchtime to eat together in class with their teacher;

• introducing “fruit breaks” during the day;

• providing covered outdoor eating areas and café-style eating areas where possible.

• Developing suggestions for healthy lunches can engage young people, families, and whānau in fun and social learning activities that involve selecting and preparing healthier food and beverages.

Try the healthy lunch activities in The Curriculum in Action resource Healthy People Eat Healthy Food for schools with students in years 1–3 (available from Customer Services at Learning Media) or use the Action Plan on page 16 of that publication to address an aspect of improving choices for healthy lunches. The National Heart Foundation of New Zealand’s Healthy Heart Award and School Food Programme materials (Grant, 1997 and 1999) also provide positive examples for early childhood education services and schools. Check the Ministry of Health’s Food and Beverage Classification System for information about healthy lunch ideas.

APPENDIX 3: IDEAS FOR FUND-RAISING

Many early childhood education services and schools have made changes to the way they raise funds when putting into practice their food and nutrition policies.

One school, as described below, found that changing practices in its cafeteria did not affect its economic sustainability.

Our school has changed its cafeteria operator. The new operator is working alongside the school’s “almost complete” nutrition policy. There are now no soft drinks, there is affordable and nutritious food, a high emphasis on food containing protein and calcium, and high fruit and vegetable content ... and a low emphasis on processed carbohydrates. An effort is made to use mainly organic products as much as possible – this aspect stands alongside the school’s values and beliefs. No pies, fries, or junk food. We believe we could have the most healthy cafeteria in Christchurch. The school community has been consulted regarding our new policy. The cafeteria change has been a huge success not only for the healthy food content but it has also been economically sustainable. This may give other schools the confidence to go for this alternative.

ALTERNATIVE FUND-RAISING SUGGESTIONS

Funds can be raised through sales of:

• healthy snacks or raffle tickets for a food basket of donated healthy foods;

• arts and crafts;

• calendars and tea towels featuring children’s art or historical scenes featuring local events;
• diaries (including advertising from local businesses to help defray the production costs);
• sunscreen or pencils;
• food or beverages created through classroom programmes;
• produce from the service’s or school’s edible garden to the community;
• a healthy-foods recipe book, which the children have helped to produce.
Other fund-raising ideas include:
• car washes;
• community music performances;
• celebrity games;
• fun runs; walk-a-thons (for example, early childhood: each child gets sponsorship for each lap walked – up to 8 laps at $1 per lap);
• bowling nights/bowl-a-thons; skate nights/skate-a-thons; jog-a-thons; Jump Rope for Heart;
• talent shows, recitals, or contests (where local businesses donate items to raffle);
• read-a-thons, spelling bees, science fairs;
• rent-a-teen-helper (raking leaves, watering gardens, mowing lawns, walking the dog);
• fund-raiser dinner with a live or silent auction (goods, services, and talents);
• work with local growers to promote and sell “veggie” packs;
• quiz evenings – especially those that challenge assumptions about health;
• hole-in-one competitions, with golf balls “sold” and with a driving range in the school grounds;
• a “healthy eating” food festival;
• pedometer challenges or journeys, for example, working out how long it would take to walk to a particular destination, such as from the east to the west coast. Identify suitable “stopping points” and investigate the history and places of interest on the way. Using pedometers, work out when the class has walked enough steps to “get there”, and have a “themed” shared lunch.

APPENDIX 4: IDEAS TO INVOLVE PARENTS IN HEALTHY EATING ACTIVITIES
Talk to parents about what your service or school is doing to establish or build on a healthy eating environment. For example, use newsletters or information evenings to talk about the influences of food and beverages on children’s achievement, attendance, and behaviour to gain support from parents for healthy eating initiatives. Involve parents in healthy eating activities, for example, by providing healthy refreshments at events to which parents have been invited.
Some ideas for changes that parents can make at home include the following:

- Encouraging children to have breakfast – low-sugar breakfast cereal (or leftovers, such as rice) served with reduced-fat milk and fruit or bread or toast make a nutritious and speedy breakfast or snack for any age. (Low-fat milk should only be used for children over the age of two years).

- Make nutritious packed lunches using rolls or sandwiches with a filling of cheese and lean meat or egg, plus a selection from snacks such as fruit, yoghurt, carrot sticks, fruit buns, nuts and raisins, and wholemeal biscuits. All early childhood education services and schools have water available for children to drink. A frozen bottle of water in their lunchbox could keep your child's lunch cool.

- Examples of great snacks include: raw vegetables, beans on toast, whole-grain cereals, substantial soup, nuts and dried fruit, fruit salad, peanut butter on toast (remembering that some children will have food allergies), pita bread and dips, fruit smoothies, yoghurt or rice pudding, sandwiches, and potato, rice, or pasta salad.

- Make healthy “crisps” by slicing bread, pita bread, and/or tortilla wraps into strips. Bake on a tray in a hot oven (200°C or 392°F) for eight to ten minutes (avoid browning), then cool and serve. Great served with low-fat dips. These are good for serving at early childhood education service and school events too.

- Give some examples of alternative ideas for rewards other than food, for example, a visit to the park or trip to the local museum with the family or extra stories or reading time at bedtime.

**APPENDIX 5: FOOD HYGIENE**

**REGULATIONS GOVERNING THE SALE OF FOOD IN EARLY CHILDHOOD EDUCATION SERVICES AND SCHOOLS**

The Food Hygiene Regulations 1974 currently apply to the majority of premises that sell food throughout New Zealand. The regulations are enforced by local authorities and require the registration of those premises. In the regulations, there are exceptions to the requirement to register for premises that do not sell food to the general public, such as schools, hospitals, work cafeterias, and similar operations. They MUST, however, still comply with the other food hygiene and safety requirements specified in the regulations. Local authority environmental health officers may inspect these premises for compliance with the regulations and may charge an inspection fee.

The regulations also allow early childhood education services and schools, on their premises, to carry out occasional fund-raising activities that involve food, and they allow charitable institutions to raise money in public through the sale of food.

**RESPONSIBLE FOOD DELIVERY**

Early childhood education services and schools preparing and selling food must take responsibility for producing safe and suitable food on their premises, whether they employ a chef and kitchen staff, rely on volunteers from their community, or bring in a commercial food operation. Good practices recommended by the New Zealand
FOOD PREPARATION ON SITE
Food is often prepared in early childhood education services or primary schools without appropriate kitchen facilities. Children under the age of five are part of a “vulnerable community” as they are particularly susceptible to the effects of food-borne illness.

Each early childhood education service and school has to decide whether they can prepare food and, if so, where it will be done. Identifying where problems might lie, determining the precautions to be taken to ensure safety and hygiene, providing the necessary facilities, equipment, and training that will enable safe practices, and establishing clear staff responsibilities will contribute to the successful provision of food in the learning environment.

Sourced from the New Zealand Food Safety Authority at www.nzfsa.govt.nz

APPENDIX 6: USEFUL ONLINE RESOURCES AND BACKGROUND READING

GOVERNMENT RESOURCES ABOUT FOOD AND NUTRITION
Ministry of Health resources for food and nutrition, including family food and guidelines for different age groups at http://www.healthed.govt.nz/resources/healthyfamilyfood.aspx


District Health Boards (Public Health) websites for health promotion assistance and information. Addresses available on the Ministry of Health website at www.moh.govt.nz/districthealthboards

National Heart Foundation (information about healthy eating, physical activity, recipes, articles, Healthy Heart Award, School Food Programme, and Jump Rope for Heart) at www.heartfoundation.org.nz

Food Safety: The New Zealand Food Safety Authority at www.nzfsa.govt.nz (Search on Meet the Bugs)
BACKGROUND INFORMATION FOR TEACHERS AND SENIOR SECONDARY STUDENTS ABOUT HEALTH PROMOTION


RESOURCES FOR TEACHERS AND RECIPE AND NUTRITION INFORMATION FOR EVERYONE

**Food Analysis Programme**

*Food Choices the IT Way* (Xyris, 2001)

A resource developed for secondary schools using the Foodworks™ nutrition database – designed to encourage students to make healthy food choices. Students can use information technology to make accurate in-depth analyses of the foods they eat, the recipes they use, and the foods they purchase. The resource package includes CD-ROM, Teacher’s Guide, and ten student workbooks available at info@xyris.com.au

*Healthy Food Guide*, published monthly by Healthy Food Media at [www.healthyfood.co.nz](http://www.healthyfood.co.nz)

Horticulture New Zealand at [www.vegetables.co.nz](http://www.vegetables.co.nz)

NZ Beef and Lamb at [www.nzbeeflamb.co.nz](http://www.nzbeeflamb.co.nz)

**Practical tips** to help you make healthier choices and eat well at [www.eatwell.gov.uk/healthydiet/](http://www.eatwell.gov.uk/healthydiet/)

**5+ A Day**: Information and resources at [www.5aday.co.nz](http://www.5aday.co.nz)

**Lunch ideas for a week** at [www.food.gov.uk](http://www.food.gov.uk)

**Useful ideas for healthier tuck shops/canteens and lunchboxes and engaging communities** at

[www.heartfoundation.org.nz](http://www.heartfoundation.org.nz)

[www.foodinschools.org](http://www.foodinschools.org)

**Food songs** at [www.dole5aday.com/MusicAndPlay/Music/Mā5ADSongIndex/MāHome.jsp](http://www.dole5aday.com/MusicAndPlay/Music/Mā5ADSongIndex/MāHome.jsp)

**Background food safety information for students** at [www.foodsafety.gov](http://www.foodsafety.gov) (Go to Kids, Teens, and Educators)

INTERNATIONAL RESOURCES


**Nutrition Australia** – Provides the latest on nutrition research, current food and health trends at [www.nutritionaustralia.org](http://www.nutritionaustralia.org)
Centres for Communicable Disease Control and Prevention – CDC’s Division of Nutrition and Physical Activity (DNPA) takes a public health approach to address the role of nutrition and physical activity in improving the public’s health and preventing and controlling chronic diseases. At www.cdc.gov/nccdphp/dnпа/nutrition/index.htm

Food Watch – Catherine Saxelby, Australian nutritionist and food writer’s website. Author of Nutrition for Life, Catherine is also Nutrition Editor for the magazine Australian Table. At www.foodwatch.com.au

Slow Food – a non-profit, eco-gastronomic, member-supported organisation that was founded in 1989 to counteract fast food and fast life, and the disappearance of local food traditions. At www.slowfood.com

Preschool Education – a US site that includes nutrition and resource ideas for preschool educators, at www.preschooleducation.com/art10.shtml

Child and Family Canada – “Child care is a shared responsibility. Everyone who cares for children has an important role in promoting their nutritional health.” At www.cfc-efc.ca/docs/ninut/00001104.htm

American Dietetic Association – Involving the whole family in healthy eating and physical activity at www.wellpoint.com/healthy_parenting/familyinvolvement.html

The Project EAT team at the University of Minnesota’s School of Public Health has been investigating the many health benefits for teens of eating family meals. The report can be found at www.apa.org/pi/cyf/fam4.html

BACKGROUND INFORMATION AND RESEARCH

HETTANZ subject association for teachers and/or interested people in the fields of home economics and technology and the allied fields of health, human development, human nutrition, hospitality, and life science at www.hettanz.org.nz/hettanz05/

Agencies for Nutrition Action – a website created as a tool for people who work in the promotion of nutrition and physical activity in New Zealand at www.ana.org.nz

Sustainable foods at riley.nal.usda.gov/nal_display/index.php?tax-level=1&info_center=4

DATA ON CHILDREN’S FOOD AND NUTRIENT INTAKE


RELATED BOOKS FROM THE MINISTRY OF EDUCATION’S THE CURRICULUM IN ACTION SERIES
Healthy People Eat Healthy Food: Food and Nutrition: Years 1–3 (1999). Item number 23602.

In the Outdoors: Years 7–8 (2001). Item number 24700.


To order these Ministry resources, email orders@learningmedia.co.nz or freefax 0800 800 570.
REFERENCES

ACC (2002). *SportSmart: Coaches’ Kit*. Wellington: ACC.


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Editor: Anna Saunders

Designer: Richard Seyb, The Church and Liz Tui-Morris, Learning Media