UPPER PRIMARY



Food to grow and go

Strand

Promoting the Health of Individuals and Communities

Purpose

Students explore the relationship between food and health. They identify their nutritional needs for growth, energy and health and evaluate the effectiveness of their diet in meeting these needs. Students also investigate social, biological and environmental factors that influence their diet and develop and implement strategies to optimise their personal diet based on identified needs for growth, energy and health.

Overview of activities

Activities in this module are based on a learner-centred approach with an emphasis on decision making and problem solving. As the following diagram shows, activities are sequenced in **understanding**, **planning**, **acting** and **reflecting** phases.





HEALTH AND PHYSICAL EDUCATION

Core learning outcomes

This module focuses on the following core learning outcomes from the Years 1 to 10 Health and Physical Education Syllabus:

Promoting theHealth of
Individuals and **Communities**4.1 Students recommend actions they can take to promote their health in response to social, biological or environmental factors.
4.2 Students develop and implement strategies for optimising personal diet based on identified nutritional needs for growth, energy and health.

Core content

This module incorporates the following core content from the syllabus:

Promoting the Health of Individuals and Communities

- factors influencing health, in particular, nutrition;
- health-promoting behaviours of individuals and groups related to physical, social, mental, emotional and spiritual wellbeing;
- strategies to promote personal health;
- relationship between food, growth and development and health, including the impact of eating behaviours on health, choosing nutritious foods, the role of food types in meeting nutritional needs, and planning diets based on nutritional needs for growth, energy and health.

Assessment strategy

The following are examples of assessment tasks that provide opportunities for students to demonstrate the core learning outcomes identified in this module. Other activities in this module provide opportunities for teachers to gather evidence about students' demonstrations of outcomes for assessment purposes.

Promoting the Health of Individuals and Communities 4.2

- Students identify their dietary needs for growth, energy and health. Using the Australian Guide to Healthy Eating, students determine the number of daily serves of the various food groups they need to consume to support their growth, energy and health. They explain how each of the food groups in these proportions meets their growth, energy and health needs. They also research the need for variety across and within food groups and the importance of water in their diet. Students record the information they collect in a journal or learning log.
 - Can the student identify his or her nutritional needs for growth, energy and health?
 - Can the student describe how each of the food groups supports his or her growth, energy and health?
 - Can the student explain why it is necessary to consume a variety of foods?
 - Can the student explain the importance of water in the diet?



Promoting the Health of Individuals and Communities 4.1 and 4.2 Students develop strategies for optimising their personal diet based on their nutritional needs for growth, energy and health. The strategies should take into account social, biological and environmental factors that influence their diet.

- Can the student propose strategies for optimising personal diet based on nutritional needs for growth, energy and health?
- Can the student identify actions to take to optimise his or her diet in response to social, biological and environmental factors?
- Are the proposed strategies realistic?
- Students devise and implement a plan to achieve their goals for optimising their diet. The plan should include strategies to overcome barriers and support enablers, and a timeframe. They record their progress in their journals.
 - Can the student devise a plan to implement strategies to optimise diet?
 - Can the student implement strategies to optimise diet?
 - Can the student show evidence of implementation of the plan?

Background information

National Nutrition Education in Schools Project

Nutrition education as part of health education is effective in enhancing students' understanding about nutrition. Many young people are now aware of key health messages about diet, such as those related to the intake of saturated fat, salt, fibre and sugar. Education that assists students to select foods that reflect their understanding, however, has been less successful.

In 1996 the National Nutrition Education in Schools Project released a teacher professional development program that proposed a method of learning and teaching that assists students to make changes to their eating habits, if changes are necessary. This module is based on the concepts advocated in that program.

Nutrition and adolescence

Adolescence marks one of the most rapid periods of growth in the human life cycle. This is why food is so important at this stage of life. Optimum nutrition is necessary to ensure that each individual grows at a rate that is appropriate for him or her.

Many young people become conscious of their body shape during adolescence. Peer pressure and the media are strong influences on adolescents who are beginning to make their own food choices. Typical features of adolescent diets include fast-food consumption, snacking and missing meals, especially breakfast. Also, some adolescents who were physically active as children become inactive as teenagers. It is imperative, therefore, that young people have the knowledge and skills to make informed decisions about nutrition.

Terminology

Activities in this module involve use of the following language in the context of Health and Physical Education:

barriers biological enablers energy environmental food groups growth SMART goals social

School authority policies

Teachers need to be aware of and observe school authority policies that may be relevant to this module, particularly policies relating to sensitive issues.

Social justice principles

This module provides opportunities for students to increase their understanding and appreciation of supportive environments, diversity and equity. It includes activities that encourage students to:

- provide supportive environments by working collaboratively in small groups to help each other achieve food-related goals;
- acknowledge the diversity of students in terms of eating patterns, food goals and strategies to achieve goals dependent upon cultural, social and economic backgrounds;
- make changes to their food intake that are consistent with individual nutritional requirements;
- acknowledge the cultural, social and economic factors that influence an individual's current dietary behaviour and means of achieving goals.

Students with disabilities or learning difficulties may require some activities to be modified to optimise their participation and their ability to demonstrate the outcomes. Teachers should consult with parents/carers and specialist support staff to determine whether modification is necessary.



Support materials and references

Australian Department of Health and Aged Care, Population Health Division, *The Australian Guide to Healthy Eating*. Available URL: http://www.health.gov.au/pubhlth/strateg/food/guide/index.htm (accessed December 2000).

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National Heart Foundation 1996, *Heart Health Manual: A Resource Kit for Primary Teachers*, Canberra.

Nemours Foundation, *KidsHealth*. Available URL: http://kidshealth.org/ (accessed December 2000).

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Activities

Activities in this module require students to maintain a personal journal or learning log in which to record information.

Understanding

THE MEANING OF HEALTH	Developing an understanding of the multi-dimensional nature of health
	► Students view a collection of pictures of well-known personalities (for example, athletes, singers, politicians) and people from diverse cultural and socioeconomic backgrounds. They indicate whether or not each of these people looks healthy. Students form groups to discuss the ways in which these people might be healthy and ways in which they might be unhealthy, taking into consideration the different dimensions of health. Each group develops a profile of what they believe a healthy person to be and records this in their journals before sharing it with other groups.
	Teaching considerations
	Students might initially refer to health in terms of physical attributes, such as shiny hair and white teeth. Through questioning and discussion, lead students to acknowledge that physically healthy people might not be socially, emotionally, mentally and spiritually healthy.
	Students may equate social health with having lots of friends and being popular. Lead them to understand that social health involves being able to relate and communicate with others, not necessarily just being outgoing.
	► Students write a definition of health in their journals. In pairs, they discuss their ideas and choose a single definition. Two pairs then join to refine definitions and share these with the class. Students write a class definition of health and record this in their journals and display it on a board or chart.
	Teaching consideration
	Definitions should incorporate the multi-dimensional nature of health.
FOOD AND HEALTH	Developing an understanding of the relationship of food to the dimensions of health
	Students compile a list of reasons why people need food.
	Focus questions could include:
	• Why do we need food?
	 How do we know when we need to eat?
	• What happens to our bodies if we do not eat?
	• How does the food we eat contribute to our physical health?





• Students recall the times and occasions when they eat. They suggest how occasions when they eat (for example, family meals, parties, religious celebrations) contribute to the various dimensions of health.

Focus questions could include:

- Does everyone eat at the same times? Why?
- How often do we need to eat? Why?
- How do the occasions when we eat contribute to the dimensions of health?

► Students identify three or four different types of meals (for example, breakfast, lunch at school, eating at a restaurant). They develop a table that shows how these meals contribute to the physical, social, emotional, mental and spiritual dimensions of health.

Teaching considerations

Resource Sheet I Refer to Resource Sheet I for examples of tables students could develop in this activity.

The ways in which food eaten in different environments contributes to the dimensions of health will vary. A breakfast eaten alone at home, for example, may contribute primarily to the physical dimension of health; an outing to a fast-food outlet for a meal with family or friends may make a valuable contribution to the social and emotional dimensions of health.

► Students view a video or recall a personal experience, television program or a movie where the consumption of food was a focus or a regular feature. They identify how these situations contributed to the social and emotional dimensions of their health or the characters' health and how such occasions influence foods eaten. They discuss their ideas with the class group.

Focus questions could include:

- On what occasions do people eat at restaurants?
- When people eat at a restaurant, which dimensions of health could be influenced?
- Are the foods that people eat at restaurants different from foods they might eat at regular meals? Why?
- What types of foods do the characters or other people eat when they are lonely, bored or depressed?
- What types of foods do they eat when they are happy?

Teaching considerations

Personal experiences could include occasions such as parties, weddings or religious feasts.

Highlight the dilemma people face in making changes to their diet in social settings where there is an expectation to eat particular foods or the same foods as others.

The term 'diet' describes the food usually or regularly eaten by an individual.

PERSONAL DIETS	Developing an understanding of personal dietary needs for growth, energy and health
	• Students reflect on their current stage of growth and development, the energy requirements of their current lifestyle, and their current health. They write a summary of these in their journal.
	 Focus questions could include: How would you describe your current stage of growth and development? Are you going through a growth spurt or not growing? How much physical activity do you do? What other activities do you do that require energy? What is your current state of health? Do you have a physical or medical condition that requires medication of a special diet?
	Teaching consideration Information students record in their journals is personal. They should share it only if they wish. This information will be used later in the module when students review their diet in relation to their growth, energy and health requirements.
	• After teacher modelling, students record in a food diary everything they eat and drink for one week.
	Teaching considerations
Resource	See Resource Sheet 2 for an example of a food diary.
Sheet 2	Explain the need for students to evaluate their diet before deciding whether changes are required and the nature of these changes to ensure optimal growth, energy and health.
	Remind students to include in the diary the quantity of sugar added to breakfast cereal and drinks, spreads put on bread and the type of milk used.
	Students will use the information collected in a later activity to determine whether they need to change their diet to ensure it meets their growth, energy and health needs.
FACTORS INFLUENCING FOOD INTAKE	Developing an understanding of factors that influence personal diet
	► Students consider their personal response to the question 'How much control do I have over what I eat?'. They position their responses on a continuum that ranges from 'little control' to 'high degree of control'. Students explain their reasons for positioning themselves where they have.
	Teaching consideration
	Treat students' responses sensitively. Some students may not wish to disclose the reason for their position.

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As a class, students brainstorm all the factors that influence food intake. They list them on a board or chart for use in other activities.

Teaching considerations

Explain that influences on a person's food intake may vary greatly and change during a person's life according to changing circumstances, such as geographical location or financial situation.

Factors influencing food intake could include personal likes/dislikes, feelings, family, peers, religion, media, traditions, climate, geographical location, food contents, available technology, medical conditions, food intolerance and financial situation.

▶ In groups, students share their understanding of what the terms 'social factors', 'biological factors' and 'environmental factors' mean. Each group displays their ideas before developing a class definition of each of these. Groups categorise the factors identified during the previous activity's brainstorm under the headings 'social factors', 'biological factors' and 'environmental factors'.

Teaching considerations

Social factors include beliefs, lifestyle, values, peers, family, media and economic circumstances.

Biological factors include growth, food allergies/intolerance and medical conditions.

Environmental factors include geographical location, climatic conditions, packaging and food supply, such as what food is available at home or at school and foods available at different times of the year.

Students produce a concept map, such as the one below, that shows the social, biological and environmental factors influencing their own food intake.



► Students reposition themselves on the continuum used earlier indicating how much control they have over what they eat and explain why they have changed position, if they have.



► Students analyse their food intake by classifying the foods recorded in their diaries according to the food groups in the Australian Guide to Healthy Eating plate model. They calculate the average number of serves from each food group they eat each day.

Teaching considerations

Model for students how to analyse their food intake.

Explain the various food groups on the Australian Guide to Healthy Eating plate model, if necessary. Students may not be familiar with them. Other food-selection models, such as the Healthy Eating Pyramid, use different groupings.

LiveLife could be used for computer analysis (see 'Support materials and references').



A PROCESS FOR CHANGE	Developing an understanding of a process for bringing about change in personal diet
Resource Sheet 5	► Students examine the diagram on Resource Sheet 5 that illustrates a process that will help them bring about change in their diet, if change is required. They identify the stage they have reached in the process and discuss what they need to do to advance to the next stage.
	Teaching considerations
	At this point, all students will have reached stage one, at least, as they have collected, analysed and evaluated information.
	Illustrate and display each stage as part of a cyclical process on a noticeboard or chart.
	The process outlined on Resource Sheet 5 is very similar to the inquiry-based approach advocated for the Health and Physical Education key learning area. (Refer to <i>Health and Physical Education Initial in-service materials</i> , p. 46). The steps in this process, however, provide slightly more detail.
	Students need to understand the learning process so that they can use it in their lives outside of the classroom. It is important that students learn the process and have access to a diagram of it.
Planning	
ANALYSING PERSONAL DIETS	Analysing personal diets to determine their contribution to growth, energy and health
	Students evaluate their diet according to the contribution of the various food groups to growth, energy and health. They identify the short- and long-term health implications of their diet should they continue with it.
	 Focus questions could include: What is good about my diet? Which foods am I eating in sufficient quantities? What is not so good about my diet? Which foods am I eating too much of or not enough of? How does this influence my growth, energy and health? What are the short- and long-term implications for my health if I continue with this type of diet? How does my diet need to be improved?

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Teaching considerations

Students use the information about their growth, energy requirements and current health, together with the record of their food intake recorded in their journals to complete this activity.

Model how to evaluate food requirements in terms of growth, health and energy and how to identify which behaviours promote growth, energy and health and which are likely to cause problems.

It is important for students to analyse and evaluate their own diet rather than use a case study. When students evaluate their diet, they should be able to make statements such as 'If I continue with this type of food intake, I will not be having enough dairy food in my diet, and this will affect the strength of my bones'; or 'If I continue with this food intake, I will have too much saturated fat in my diet, and that can lead to being overweight'.

Each student will have a different evaluation. It may be helpful for students to work in cooperative groups to help each other.

Show sensitivity when discussing students' evaluations of their diet and the power they perceive they have to change it.

TRATEGIES FOR IAKING CHANGES	Developing strategies for making changes to diet

• Students identify and discuss key strategies for making changes to their diets, such as enlisting the support of others, setting goals and preparing foods that support their goals.

► Students identify examples of how enlisting the help of others could assist in bringing about behavioural change, particularly with respect to eating. They discuss the meaning of collaborative goal setting and how working in small groups can assist members make changes to their diet.

Teaching consideration

Examples of good use of group support include family support through all the family eating similar foods, if appropriate; support from friends who also wish to improve their diet; and joining support groups.

► Students discuss how setting food goals can help when trying to make changes to the diet. They discuss setting manageable goals and factors that can help them to achieve goals. They consider the notion that goals need to be **s**pecific, **m**easurable, **a**chievable and **r**ealistic, and have a **t**imeframe. They develop an acronym for these features (SMART).

Teaching considerations

Do not expect students to make too many changes at once.

A strategy for improving the diet is to make small, positive changes. Manageable changes are sustainable. If students are successful in making small changes, they will feel confident to make more changes. If they attempt difficult changes, they are more likely to be unsuccessful and may be less likely to try again.

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Students discuss how being involved in preparing food can help them achieve their goals and develop the skills necessary to follow some of the recommendations in the Dietary Guidelines for Children and Adolescents. **Teaching considerations** Learning food preparation skills can support dietary changes. A person who has a range of food preparation skills has a greater selection of foods from which to choose. Students could practise basic food preparation skills such as chopping, slicing, grilling or steaming and prepare foods using these techniques. TAKING Setting goals to improve personal dietary behaviours CONTROL ▶ In groups, students set goals based on their evaluation of their diet. They check that their goals are realistic in terms of social, biological and environmental influences on their diet. Students share goals and explain how the goals are SMART goals. They suggest ways to help each other achieve goals. **Teaching consideration** Remind students that they are cooperating with and supporting each other, not competing against each other. Examples of SMART goals could include: • exchanging a high-fat snack for a piece of fruit three days per week; replacing soft drink with water or fruit juice at lunch on school days; · adding fruit to breakfast cereal on weekdays. Students identify the social, biological and environmental factors that might influence the implementation of their strategies. They work out what factors will help and what will hinder them in achieving their goals. **Teaching consideration** The types of influences that students might consider include: not knowing what to eat to achieve their goals; • the family not eating a particular type of food; the range of foods available during certain seasons; being unable to eat particular foods; level of support from parents/carers; · level of interest in food and nutrition; concern about being teased by siblings/peers.

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How meals contribute to the dimensions of health

The following tables show how various meals may contribute to the different dimensions of health.

Meal: Family breakfast

Dimension of health	The meal's contribution
Physical	Food eaten: • satisfies hunger; • provides energy for the day; • helps growth; • builds healthy bones; • provides protection from illness and disease.
Social	Opportunity for the family to: • spend time together; • talk to each other; • discuss plans for the day.
Emotional	Promotes: • happiness in being with family; • sense of belonging; • positive attitudes toward the day ahead.
Mental	Food eaten helps the brain to function.
Spiritual	Promotes: • gratitude for the food; • sense of belonging; • environment in which to share feelings and ideas.

Meal: School lunch with friends

Dimension of health	The meal's contribution	
Physical	 Allows choice from a variety of different foods at the tuckshop. Replaces energy. Eliminates hunger. Supports growth. 	
Social	Opportunity to: • talk with friends; • share ideas and concerns; • feel part of a group; • be accepted as an individual.	
Emotional	Promotes: • opportunities to share with friends; • sense of belonging.	
Mental		
Spiritual		

Resource Sheet I

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Name:	Day:	
Time of day	Food consumed	Quantity
Before school		
Morning tea		
Lunch		
After school		
Evening meal		
Before bed		





Source: Adapted from Commonwealth Department of Health and Family Services 1998, *The Australian Guide to Healthy Eating*, kit, Commonwealth of Australia, Canberra.

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Dietary Guidelines for Children and Adolescents

- I. Encourage and support breastfeeding.
- 2. Children need appropriate food and physical activity to grow and develop normally. Growth should be checked regularly.
- 3. Enjoy a wide variety of nutritious foods.
- 4. Eat plenty of breads, cereals, vegetables (including legumes) and fruits.
- 5. Low-fat diets are not suitable for young children. For older children, a diet low in fat and, in particular, low in saturated fat is appropriate.
- 6. Encourage water as a drink. Alcohol is not recommended for children.
- 7. Eat only a moderate amount of sugars and foods containing added sugars.
- 8. Choose low-salt foods.

Guidelines on specific nutrients

- I. Eat foods containing calcium.
- 2. Eat foods containing iron.

Source: National Health and Medical Research Council. Available URL: http://www.health.gov.au/nhmrc/publicat/n-home.htm (accessed December 2000).





Source: Adapted from Commonwealth Department of Health and Family Services 1996, *Food and Nutrition in Action: A Curriculum Development Package*, Curriculum Corporation, Carlton, Vic., p. 10.

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Curriculum Corporation for material from *Food and Nutrition in Action: A Curriculum Development Package*, 1996.

This sourcebook module should be read in conjunction with the following Queensland School Curriculum Council materials:

Years 1 to 10 Health and Physical Education Syllabus Years 1 to 10 Health and Physical Education Sourcebook: Guidelines Health and Physical Education Initial In-service Materials

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