



Personal Development, Health and Physical Education

Stage 6

Support Document

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1 Introduction

This document is designed to assist teachers as they plan for the introduction of the *PDHPE Stage 6 Syllabus*.

The support document does not attempt to cover all syllabus areas of study. Its purpose is to clarify the requirements of the syllabus and illustrate these through:

- three sample scope and sequence models
- a sample unit of work relating to an area that has new emphasis in the Preliminary core
- two possible HSC assessment programs
- a sample HSC assessment task with marking guidelines.

It also provides ideas for developing critical inquiry and realising opportunities for a practical approach to teaching and learning.

Finally, brief explanatory notes are provided in relation to areas of study that are either new or that have a changed emphasis. These are not intended to be comprehensive statements but rather to assist teachers in their initial understanding of these matters.

A list of PDHPE resources including websites can be found on this website.

2 Getting Started

2.1 Establishing a Scope and Sequence

The PDHPE syllabus allows teachers a degree of flexibility in the way that they sequence their teaching/learning program. Schools also have the opportunity to select two Preliminary and two HSC option modules to be studied. This allows for a program of study that best fits students' interests, available resources and the teacher's expertise.

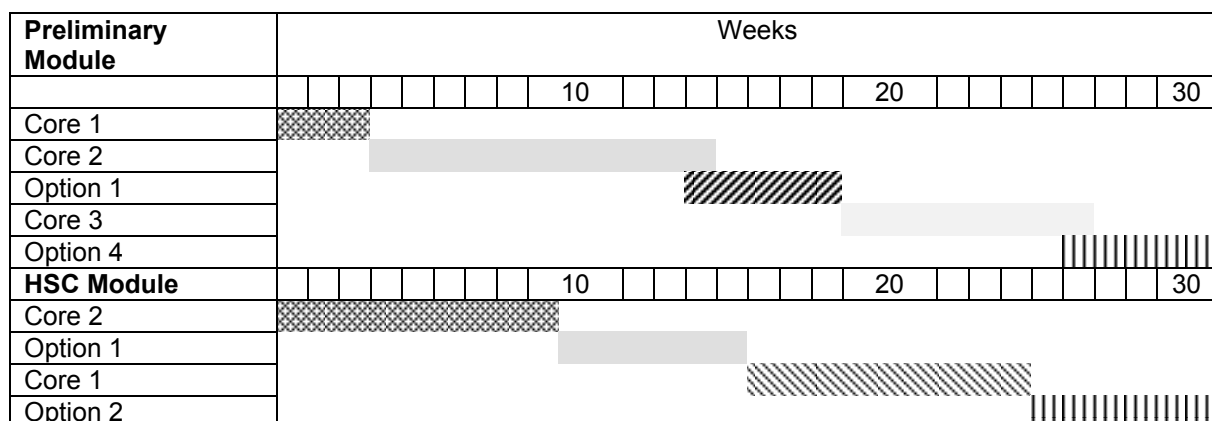
However, the scope and sequence must reflect the syllabus prescriptions for course time and module weightings. Both Preliminary and HSC courses are 120 indicative hour courses. Each module is allocated a weighting as indicated in the following table. The equivalent number of weeks is based on a four hours per week model.

Preliminary Course			HSC Course		
Module	% Course Time	Weeks	Module	% Course Time	Weeks
Core 1	10	3	Core 1	30	9
Core 2	35	10.5	Core 2	30	9
Core 3	25	7.5	Option A	20	6
Option A	15	4.5	Option B	20	6
Option B	15	4.5			
	100	30		100	30

The following sample scope and sequence charts reflect 30 weeks of teaching. The actual sequence might not fit into three neat terms as schools may have examination blocks, revision periods and other student activities to consider in their planning.

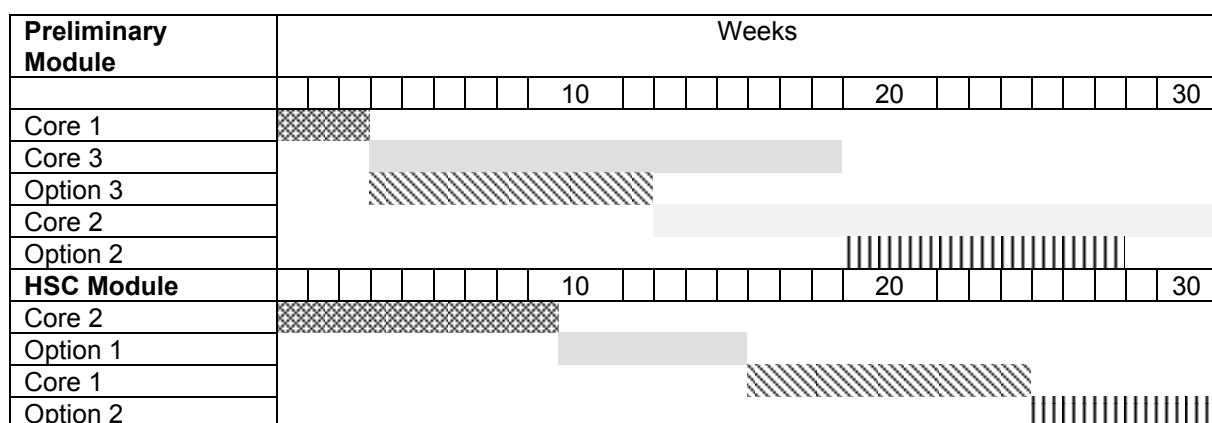
Example 1

In this model, modules are taught as separate entities. Core 1 is introduced as a basis to all other modules. Other core modules are followed by options that build upon the knowledge and understanding developed in that core. The order of modules could be adjusted to suit school needs.



Example 2

This scope and sequence has been designed to encourage regular opportunity for physical activity. This is achieved by running two modules concurrently with each having three 40-minute periods per week. The modules are sequenced to ensure that at all times one of the modules being taught is movement-based. This model also maximises the use of a specialised performance space that may be timetabled to the class on a permanent basis throughout the year for a number of periods per week.



Example 3

In this model, modules that have closely related topics are concurrent. Through integrating the teaching of these areas, the links are made more clearly for students. The model might be suitable when schools need to book facilities and resources for an intense period or when using particular teacher expertise across classes. It is important that schools ensure that the time allocated to each module maintains the weightings prescribed for core and options.

Preliminary Module	Weeks																													
	10										20										30									
Core 1																														
Core 3																														
Option 4																														
Core 2																														
Option 3																														
HSC Module	10										20										30									
Core 1																														
Option 5																														
Core 2																														
Option 4																														

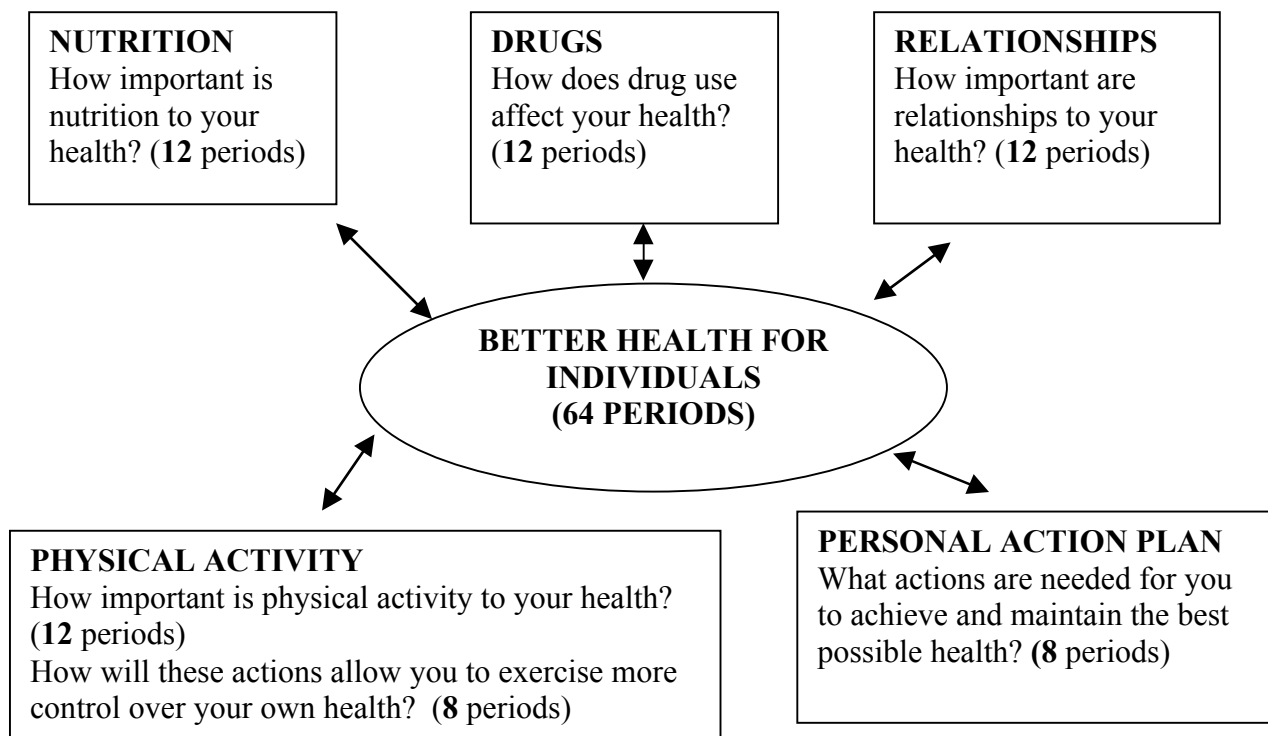
2.2 Planning Units of Work

Units of work should be planned to ensure that all syllabus requirements will be met. The following sample unit of work demonstrates the key considerations and decisions to be made when translating the syllabus into a teaching program. These include:

- How much time will be allocated to each of the focus questions?
- Which outcomes relate to this unit?
- What strategies will allow students to demonstrate what they know and can do (ie outcomes)?
- How will student achievement of the outcomes be assessed?

This unit of work relates to *Preliminary Core 2 **Better Health for Individuals*** and has been designed for a school that has identified physical activity as a priority area. Each of the four aspects of health is studied in general terms, with additional time devoted to investigating action areas of the Ottawa Charter related to physical activity. The unit concludes with an investigation of those actions that will allow students to exercise more control over their health.

Unit Title: Better Health for Individuals



Outcomes

- P2 explains how nutrition, physical activity, drug use and relationships affect personal health
- P3 recognises that health is determined by sociocultural, economic and environmental factors
- P4 identifies aspects of health over which individuals can exert some control
- P5 plans for and can implement actions that can support the health of others
- P6 proposes actions that can improve and maintain personal health
- P10 plans for participation in physical activity to satisfy a range of individual needs
- P11 assesses and monitors physical fitness levels and physical activity patterns
- P15 forms opinions about health-promoting actions based on a critical examination of relevant information
- P16 utilises a range of sources to draw conclusions about health and physical activity concepts

Assessment

Some teaching/learning strategies provide informal assessment opportunities that do not necessitate specific marking or detailed feedback mechanisms. The nature of these learning experiences enables students to produce easily observable evidence of achievement of the outcomes. Teachers will be able to make immediate professional judgements based on their observations and provide ongoing feedback to students throughout the teaching learning process. A number of strategies that meet this description have been selected and are marked (★).

A teaching/learning strategy that could be used as a formal assessment task is marked (✓).

How important is nutrition to your health? (P2, P3, P4, P15, P16)

<p>Students learn about:</p> <ul style="list-style-type: none"> • analysing dietary choices • outcomes of nutrition on health • factors which affect patterns of eating <p>Students learn to:</p> <ul style="list-style-type: none"> • analyse their own diet • complete a personal food history • identify the health effects that result from a diet too low in nutrients • critically examine, in case studies, the influence of the factors that affect eating patterns 	<p>Strategies:</p> <ul style="list-style-type: none"> • introduce the process of keeping a food diary • compare the 'Dietary Guidelines for Children and Adolescents' to the general 'Australian Dietary Guidelines' • analyse their personal diet with respect to a food selection model • compare personal diet with a peer or family member; identify areas of concern and predict the short-term and long-term consequences of a diet too high or low in nutrients (eg fat, protein, iron, calcium) (★) • analyse diets in terms of sensible weight loss (using computer software) • analyse the specific dietary needs of an athlete (★) • interview a working mother, a single male, a person of a particular cultural background or a young child on the factors influencing their food choice • identify key areas of action for personal health in the area of nutrition
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How does drug use affect your health? (P2, P3, P4, P15, P16)

<p>Students learn about:</p> <ul style="list-style-type: none"> • nature and prevalence of drug use • reasons for use • effects of drugs on the individual • factors associated with harm from drug use • responsible use • alternatives to drugs <p>Students learn to:</p> <ul style="list-style-type: none"> • identify commonly used drugs in the community and explore patterns of drug use • develop strategies for identifying the purposes of drug use and the social influences that lead people to use drugs • recognise that the effects of drugs can be unanticipated and interdependent • explore the interaction between the drug, the individual and the environment • investigate strategies that will reduce risks to themselves and others • examine situations where drug use may occur and identify alternatives 	<p>Strategies</p> <ul style="list-style-type: none"> • examine the drug use trends identified by the NIDE report and local area health services • identify the impact of the social situations in which students use drugs • invite a guest speaker such as an ambulance officer or pharmacist to speak about the unanticipated and interdependent effects of drug use • consider scenarios where the variables of drug, individual and environment are varied, to demonstrate the changing potential for harm from drug use • design a strategy for management in a social situation where students use drugs (eg getting home safely) (★) • debate the effectiveness of various approaches and specific strategies for the management of drug use and abuse (eg harm reduction, abstinence) (★)
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How important are relationships to your health? (P2, P3, P4, P15, P16)

<p>Students learn about:</p> <ul style="list-style-type: none"> developing and maintaining positive relationships reviewing relationships sexual relationships sexual health care <p>Students learn to:</p> <ul style="list-style-type: none"> determine why relationships are often changing or developing identify relationship changes and recognise the characteristics of successful relationships recognise the diversity of sexual relationships 	<p>Strategies</p> <ul style="list-style-type: none"> investigate the place of 'relationships' in Maslow's hierarchy of needs develop a timeline identifying significant relationships, and determine why each has been significant; predict how the nature of relationships is likely to change critically analyse changing relationships portrayed in the media (eg television, films, popular music) (★) brainstorm ways to maintain individuality in relationships complete unfinished case study scenarios relating to consent, rights and responsibilities, and safe behaviours in sexual relationships (★) rank forms of contraception in terms of their effectiveness in preventing pregnancy and the transmission of disease
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How important is physical activity to your health? (P2, P3, P4, P11, P15, P16)

<p>Students learn about:</p> <ul style="list-style-type: none"> analysing patterns of physical activity benefits and outcomes of physical activity on health planning for increased levels of physical activity <p>Students learn to:</p> <ul style="list-style-type: none"> critically examine the amount of physical activity needed to bring about health benefits maintain journal entries in order to monitor physical activity explore the role of physical activity in relation to physical, social and emotional outcomes draw conclusions about factors that influence participation, by interviewing a range of people 	<p>Strategies</p> <ul style="list-style-type: none"> compare the FITT principle and the 'National Physical Activity Guidelines' in terms of the nature, duration and regularity of activity and the effects experienced by the individual research the influence of popular media on young people's patterns of involvement in physical activity (★) conduct an analysis of the range of physical activity facilities that are available in the local community and recommend additional facilities that are needed develop a personal physical activity profile and compare it to the current recommendations (★) share personal experiences and perceptions in relation to the benefits and outcomes of physical activity on health conduct an analysis of structures in the school or wider community that influence participation in physical activity (★) explore alternatives for physical activity apart from competitive sport identify areas for personal action in relation to physical activity needs
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**What actions related to physical activity are needed to achieve and maintain the best possible health?
(P3, P4, P10, P11, P15)**

<p>Students learn about:</p> <ul style="list-style-type: none"> • action areas of the Ottawa Charter • analysing actions for improving personal health <p>Students learn to:</p> <ul style="list-style-type: none"> • distinguish the differences between the five areas • recognise that the Ottawa Charter is based on an understanding that health is socially determined • apply the action areas of the Ottawa Charter to an investigation of physical activity 	<p>Strategies</p> <ul style="list-style-type: none"> • paraphrase the five areas of the Ottawa Charter • select from the determinants of health those that are socially based • analyse a health promotion campaign in terms of how it reflects the action areas of the Ottawa Charter (★) • brainstorm the skills needed for participation in physical activity, eg time management, knowledge of rules, interpersonal skills, physical skills • examine a 'Health Promoting School' case study that targets the creation of a supportive environment for physical activity • list and rank the environments or personal networks that influence the students' physical activity patterns • analyse the effectiveness of a community strategy for increasing physical activity • debate the question: 'Should policy and funds target the inactive or aim at maintaining the activity levels of those participating?' (★)
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**How will these actions allow you to exercise more control over your own health?
(P4, P5, P6, P10, P11)**

<p>Students learn about:</p> <ul style="list-style-type: none"> • establishing an action plan to optimise health • the degree of control individuals can exert over their health <p>Students learn to:</p> <ul style="list-style-type: none"> • develop an action plan designed to optimise health • review and plan for actions to optimise health 	<p>Strategies</p> <ul style="list-style-type: none"> • design a personal action plan addressing the four areas of study (students incorporate only what they are comfortable to disclose) (★) • oral presentation critiquing the degree to which the personal action plan is likely to address individuals needs (✓)
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2.3 Designing Assessment Programs

Advice about assessment components and weightings is provided on page 92 of the syllabus. While these weightings are only suggested for the Preliminary course, they are **mandatory for the HSC course**.

The following two examples illustrate how the HSC assessment requirements may be met with a manageable number of tasks. In each case, the weighting given to exam-type items is less than the 50% limit that applies to this type of task.

Example 1

TASK	CORE 1	CORE 2	OPTION 4	OPTION 5
1. Review of health promotion articles	10			
2. Social justice analysis of health priorities essay	15			15
3. Coaching plan and analysis		20	10	
4. Written test	5	10	10	5
Total	30	30	20	20

Example 2

TASK	CORE 1	CORE 2	OPTION 1	OPTION 3
1. Oral presentation on analysis of one of Australia's health priorities	10			
2. Research report on the nature of two health issues facing young people			10	
3. Written test	10		5	
4. Design of a training program for a specific sport		20		
5. Action plans in response to sports medicine scenarios				15
6. Trial HSC	10	10	5	5
Total	30	30	20	20

2.4 Developing Assessment Tasks

The following sample task illustrates key elements to be communicated to students. These include the approximate timing, a clear statement of what is expected, the time available, its value in relation to the overall internal assessment and how it will be assessed.

Task Title	Written report on factors affecting the health of young people
Timing	Year 12, Term 1
Module	HSC Option 1 – The Health of Young People
Weighting	10%
Related Outcomes	H2, H5, H15, H16
Task Context	In order to prepare for this task, students in small groups (3–4), investigate two of the following areas of concern affecting the health of young people: (i) stress and coping (ii) sexuality (iii) risk taking and road injuries (iv) violence (v) substance abuse (vi) body image. A summary of each group’s findings is to be shared with the rest of the class in a 5–10 minute presentation.
Task Description	The assessable component of this task is an individual written assignment related to the two areas of concern you have investigated. Your report must cover each of the following: <ul style="list-style-type: none"> – the impact of these issues on the health of young people – factors leading to the prevalence of these concerns – an evaluation of what is being done to improve health outcomes for young people in these areas (Specific reference to at least one health promotion program for each area of concern is necessary) – the availability of, and access to, relevant resources and facilities in the local area.
Due Date	The written submission is to be submitted one week after the final group presentation.

2.5 Developing Marking Guidelines

In 2001, the HSC internal assessment mark submitted to the Board of Studies will still need to reflect the rank order and relative differences between the achievement of students, as is currently the case. By 2003, it is expected that schools will be able to use a standards-referenced approach to assessment. The ranking and relative difference between students will be determined from their levels of achievement of the specified standards.

The following marking guidelines have been developed by considering the outcomes assessed in the task described in **2.4** and the varying degrees to which students might demonstrate their achievement. The guidelines have been established with reference to the outcomes and task description and using the words expressed in the performance scale where appropriate¹. When using guidelines it is important to be open to amendments if a pilot marking phase indicates the

¹ The performance bands relate to the HSC course. Their use in establishing criteria for Preliminary course tasks is limited.

need for some adjustment. Reference to the guidelines will move the assessment away from direct comparison of students to a focus on their standard of performance.

Marks	Marking Guidelines
<p>10</p> <p>9</p>	<ul style="list-style-type: none"> – demonstrates extensive knowledge and understanding of the impacts of two areas of concern on the health of young people. – provides a comprehensive range of relevant information, specific data and sourced material to support arguments. – provides a detailed explanation of the link between the factors leading to the prevalence of these concerns and subsequent impacts. – identifies a range of actions implemented to overcome the problems associated with two areas of concern with detailed analysis of at least two health promotion programs. – analyses the effectiveness of these programs in improving the health outcomes of young people and links to important skills and actions for young people. – makes effective comparisons between the overall situation and local area circumstances.
<p>8</p> <p>7</p> <p>6</p>	<ul style="list-style-type: none"> – demonstrates a sound knowledge and understanding of the impacts of two areas of concern on the health of young people. – provides a range of examples and statistics to support arguments. – relates the factors leading to the prevalence with the subsequent impacts. – discusses in detail, relevant health promotion programs with some analysis of their effectiveness. Identifies skills and actions that enable young people to attain better health. – provides a comparison between the overall situation and the local area circumstances.
<p>5</p> <p>4</p> <p>3</p>	<ul style="list-style-type: none"> – demonstrates a broad awareness of the impacts of two areas of concern on the health of young people. – includes examples and statistics with limited discussion. – identifies factors leading to the prevalence of two areas of concern and attempts to relate these factors to subsequent impact. – discusses relevant health promotion programs and acknowledges skills and actions that enable young people to attain better health. – provides discussion of local resources, facilities and experiences.
<p>2</p> <p>1</p>	<ul style="list-style-type: none"> – provides a basic description of the impacts of two areas of concern on the health of young people. – provides basic relevant data. – identifies factors leading to the prevalence of two areas of concern. – describes relevant health promotion initiatives. – identifies local resources, facilities and experiences.

3 Teaching and Learning Processes

The syllabus highlights two major areas to be considered in teaching and learning. They are maximising practical application and the use of critical inquiry.

3.1 Practical Applications

There are many opportunities within the syllabus that allow students to acquire knowledge and understanding, values and attitudes and skills through experiential learning. The following groupings have been used merely to illustrate a range of practical applications. The list is neither extensive nor exhaustive.

Gathering and Analysis of Information

- interviews
- Internet searches
- statistics – gathering/analysing
- fitness testing
- observation
- checklists
- library research
- surveys
- case studies
- media searches (eg media files)
- video, audiotape and photographic records

Practical Movement Experiences

- group tasks
- movement laboratories
- fitness assessment
- movement compositions
- video analysis
- outdoor recreation camps
- skill development practices
- strapping, bandaging
- peer coaching
- resuscitation simulations

Group Work

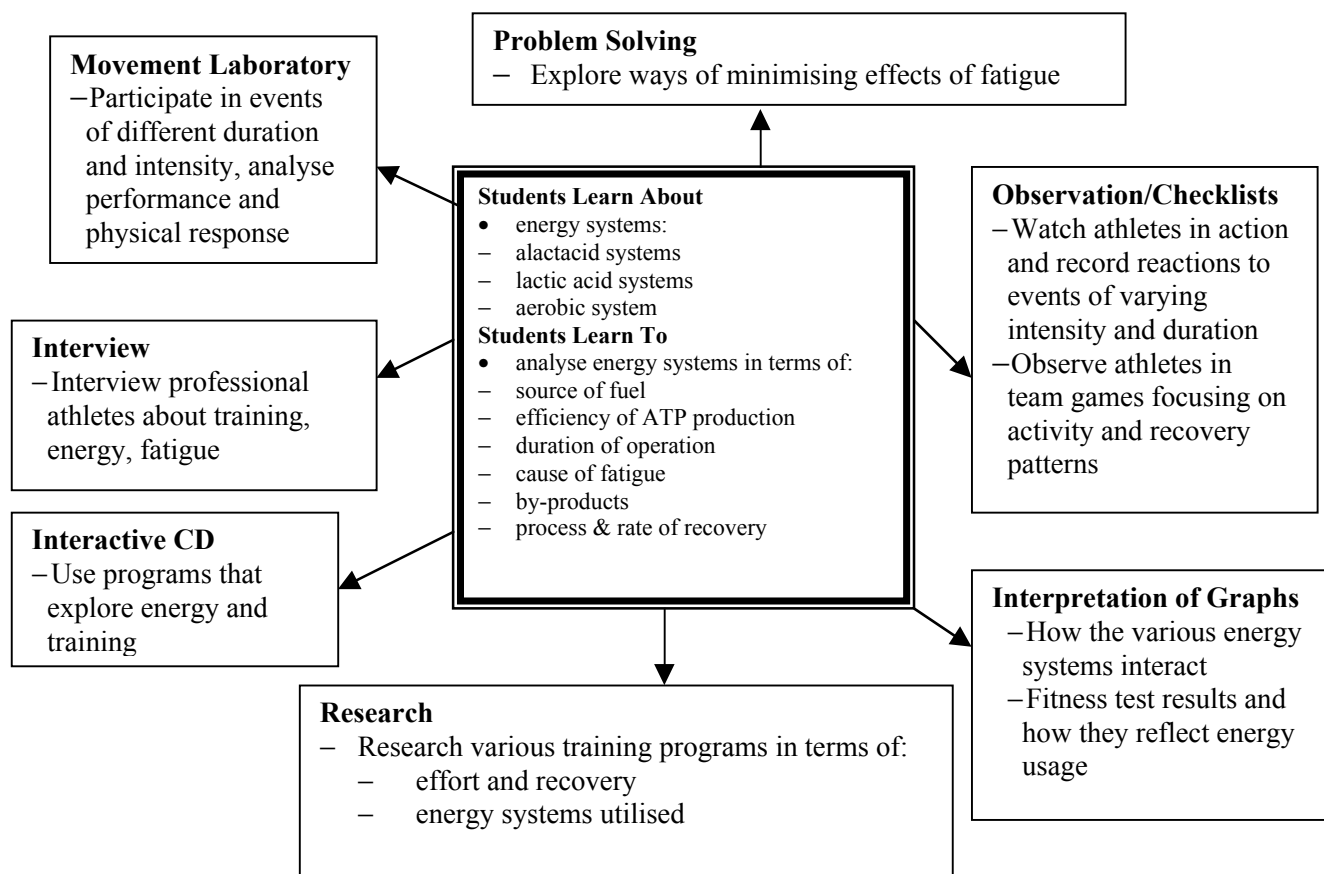
- problem-solving/think tanks
- group presentations
- debates
- role play
- developing group action plans
- mock parliament – health legislation
- movement workshops
- community surveys
- developing policy statements

Personal Records/Experiences

- journals
- diaries
- goal setting tasks
- decision-making practice

The following example shows some of the ways that practical applications could be used to explore a specific focus question, such as ‘How does training affect performance?’

How Does Training Affect Performance?



3.2 Critical Inquiry

Learning in Personal Development Health and Physical Education is characterised by growth of understanding over time and the emergence of new issues and challenges. In using a critical inquiry approach, the syllabus prepares students to manage the dynamic nature of the areas of study.

Skills in critical inquiry are enhanced when students:

- **develop thinking skills.** The processes for thinking needs direct attention in the learning process. For example, students need guidance with how to sequence, classify, compare, prioritise, find cause and effect, analyse for bias, analyse for assumption, make an analogy, draw conclusions. Students' thinking skills will be further developed by the provision of time to think and reflect. The aim must be for a thoughtful response rather than a quick one. There are a range of graphic organisers (eg mind maps) that students may find useful for expanding and organising their thoughts.
- **have a framework for inquiry.** The syllabus (at page 12) provides a generic framework for the investigation of issues. The Ottawa Charter is used as the basis of inquiry for examining personal health on pp 25-26. These and other models provide a structure that encourages students to be thorough in their investigations and to search for new ways of thinking about issues.
- **are exposed to critical questions.** The questioning used in the classroom has an important effect on the way students perceive the learning task. It is important that teachers model questions that are open-ended and divergent in nature in order to encourage a

thorough exploration of the issue. Teachers should also consider whether the words used in their questions promote analysis, synthesis, application and evaluation (eg compare, contrast, judge, decide, classify, critique, imagine, predict, estimate, illustrate, give cause, hypothesise).

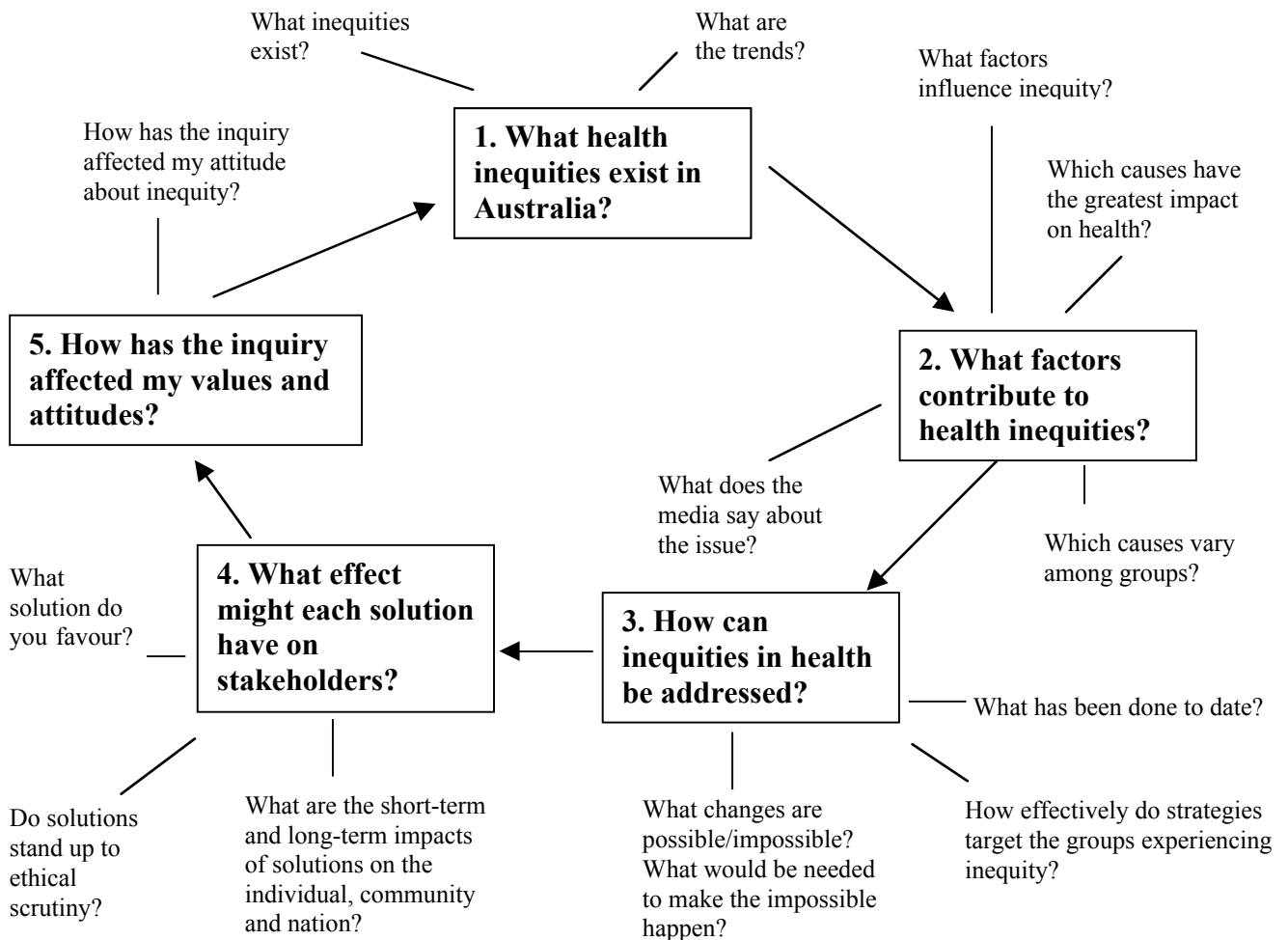
The following examples illustrate two simple techniques for encouraging thoughtful exploration of syllabus areas of study.

Example 1 Redefine the issue as a problem

By looking at an issue as a problem, students have a focus for their inquiry. The steps that may be followed in this process when investigating health inequities in Australia are:

- | | |
|---|---|
| 1. Identify the problem | What health inequities exist in Australia? |
| 2. List causes of the problem | What factors contribute to health inequities? |
| 3. Brainstorm possible solutions | How can inequities in health be addressed? |
| 4. Discuss the effects of solutions | What effect might each solution have on stakeholders? |
| 5. Reflect on the problem-solving process | How has the inquiry affected my values and attitudes? |

Each defined stage of the investigation should now be further developed through related questions as demonstrated in the following diagram.

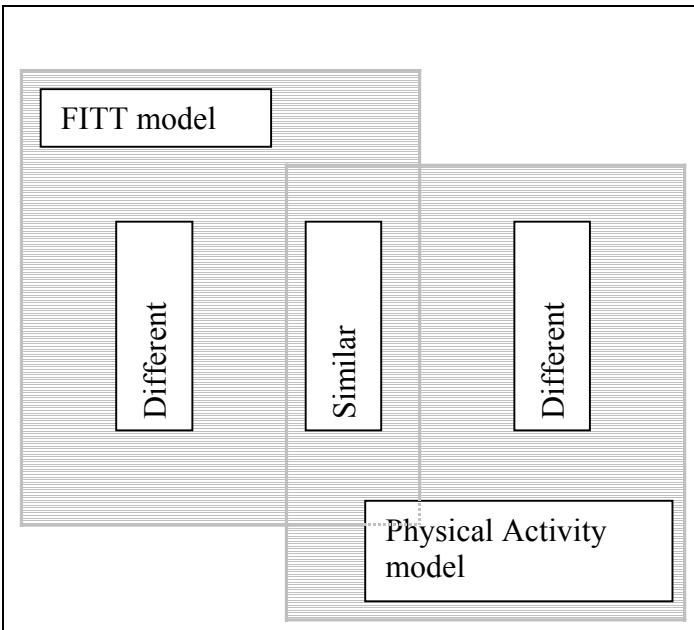


Example 2 Compare and contrast an issue

This process can be used when two or more possibilities exist and when a decision or choice is to be made. It will help students distinguish between two similar concepts and clarify the concept in their own terms. The steps in the process are:

1. identify similarities by comparing
2. select the initial attributes necessary to define the concept
3. identify the differences by contrasting
4. write a statement of findings.

To illustrate this approach, the following example relates to comparing and contrasting the 'FITT' model with the 'Physical Activity' model.

 <p>The diagram shows two overlapping rectangular boxes. The top-left box is labeled 'FITT model' and the bottom-right box is labeled 'Physical Activity model'. Between these two boxes are three vertical rectangular bars. The leftmost bar is labeled 'Different', the middle bar is labeled 'Similar', and the rightmost bar is labeled 'Different'. The 'Similar' bar is positioned over the overlapping area of the two models.</p>	<p>To develop a list of similarities and differences, pose questions such as:</p> <ul style="list-style-type: none"> • What is the difference between physical fitness and physical activity? • How do we develop fitness for sport? • How do we develop fitness for health? • How does physical activity influence health? • Which physical activities are most suitable for deriving health benefits? • How can a person use either the FITT principles or accumulated physical activity in a fitness program? • How might an individual modify their lifestyle in order to become more active using either model? • What are the limitations of each model?
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4 Background Notes

The following brief explanatory notes are provided in relation to selected areas of study in the 1999 syllabus. These are not intended to be comprehensive statements but rather assist teachers in their initial understanding of these matters. A list of resources that provide more detailed information for teachers has been placed on the Board of Studies website (www.boardofstudies.nsw.edu.au).

4.1 Social View of Health

Underpinning a social view of health is an understanding that health is socially constructed. What health means to people changes over time and will differ between different groups of people and may differ for an individual in different contexts.

The social view of health challenges the way traditional views focus on ill health as the result of a biological malfunction; it recognises that health behaviour is closely related to social and cultural factors. Thus health is not just determined by health behaviours and lifestyle but is also strongly influenced by factors such as income, social status, education, employment, working conditions, access to health care and physical environments.

Responsibility for health is shared. Health is maintained and promoted by both community and personal action and by policies and services at national, state and local levels.

The social view of health therefore:

- 1) recognises the strong influence of personal actions on health but also emphasises the influence of beliefs, attitudes and values held by families, cultural groups and the wider community
- 2) recognises the importance of creating supportive environments
- 3) focuses on social change as a way of creating supportive social and physical environments
- 4) acknowledges many factors that influence the extent to which individuals have control of their own health
- 5) emphasises the importance of social justice in improving and promoting health.

4.2 Social Justice Principles

Despite the generally high level of health experienced by Australians, there are significant inequities that present a major challenge to our society. Social justice is an important value that affects the ways in which public policies, programs and community actions are formulated.

Social justice begins with the acceptance and valuing of the **diversity** in our society. It also involves acknowledging that a single approach to an issue will not equally support all people. Actions such as providing information in community languages, training health professionals to understand particular cultural values, and establishing anti-discrimination legislation assist in recognising and responding to diversity.

Social justice places considerable importance on the **equity** of health outcomes. This requires the strategic rather than even distribution of resources in order to assist those with the greatest need or those experiencing disadvantage. For example, while it may cost more to run health services in rural and remote communities, from a social justice perspective the equity of access that this provides justifies the allocation of resources. The provision of additional educational support staff to areas where there are identified low levels of literacy is a positive step towards assisting communities to reach their full potential.

The establishment of **supportive environments** gives individuals and communities the best opportunity for sustainable health gains. This could involve actions such as establishing work practices that enable parents to manage work commitments and care for their children, ensuring the availability of nutritious foods at a reasonable price and ensuring that public transport services are in place so that elderly people can easily access health services.

The three principles of diversity, equity and supportive environments provide a useful framework for identifying areas of inequity of access and outcomes. They are also important areas for formulating solutions to health problems.

4.3 The Emergence of Health Promotion

Public health activity has changed significantly since the 1800s. The public health response to overcrowding in cities included improvements in housing and sanitation standards and the provision of safe water and food supplies. In the early 1900s, personal preventative services such as immunisation and family planning were introduced. After the 1930s, there was a shift of resources towards hospital-based services. Focus was on the cure of diseases and treatment of ailments. In the 1970s, research showed that the health care system was not the most important factor in determining health status. The focus of public health activity on individual behaviours was criticised as it led to victim-blaming and failed to address the question of why unhealthy behaviours and lifestyles occurred in the first place.

The **Ottawa Charter for Health Promotion (1986)** is acknowledged as a foundation-statement articulating the agenda for the new public health focus. It was formulated at the First International Health Promotion Conference held in Ottawa, Canada. The charter reflected the developing view that psychological, cultural, educational and economic factors must be considered in order to understand the nature of disease and to develop effective prevention programs. Occupation, sex, marital status, major life events, social networks and social support are other important related aspects. The Ottawa Charter emphasises the need for broad health promotion strategies to improve the physical, social and economic environment. It recognises that action related to social and cultural factors is needed in a range of sectors for health improvements to be achieved.

The Fourth International Conference on Health Promotion, in Jakarta in 1997, focused on 'Heading Health Promotion into the 21st Century'. To address the emerging threats to health, cooperation between government and non-government organisations, and between the public and private sector, was emphasised. The **Jakarta Declaration on Health Promotion** identifies five priorities for health promotion in the twenty-first century:

1. Promote social responsibility for health.
Both the public and private sectors should promote health by pursuing policies and practices that are socially responsible, protect the environment and are equity-focused.

2. Increase investments for health development.
Investments in health must be adequate, effective and approached in a multi-sectoral fashion. Re-orientation of existing investments and meeting the needs of certain groups should occur.
3. Consolidate and expand partnerships for health.
Partnerships at all levels of governance and society should be explored, strengthened, accountable and based on agreed ethical principles.
4. Increase community capacity and empower the individual.
Increasing community capacity for health promotion requires practical education, leadership training and access to resources. Empowering individuals demands access to the decision-making process and the knowledge and skills to effect change.
5. Secure an infrastructure for health promotion.
Incentives should be developed to maximise funding for health promotion. New and diverse networks need to be created to achieve intersectoral collaboration. All countries should develop the appropriate legal, educational, social and economic environments to support health promotion.

4.4 Australia's Health 1998

Australia's Health, produced every two years, is the cornerstone of information on current health issues. The 1998 report specifically focuses on Australia's five National Health Priority Areas: cancer control, cardiovascular health, injury prevention, mental health and diabetes. These areas were chosen for public attention and health policy because of their significant contribution to the burden of illness in the community and their potential for health gain.

Cardiovascular Health

The decline in the death rate for coronary heart disease and stroke is continuing. Risk factors, such as smoking among adults and high blood pressure, have declined, but there has been little improvement in participation rates in physical activity, blood cholesterol levels or number of people overweight. Cardiovascular disease accounted for 41.9% of all Australian deaths in 1996.

Indigenous Australians die from cardiovascular disease at approximately twice the rate of the overall population; they are more likely to be classified as obese, are twice as likely to smoke and those who drink alcohol do so at unsafe levels. Low socioeconomic groups and those from overseas are more likely than average to die from cardiovascular disease. Cardiovascular disease mortality is higher in rural and remote zones.

Cancer Control

Priority cancers have been identified: lung, breast, cervix, prostate, skin and bowel. There has been a reduction in the incidence and mortality of lung cancer in males and of cervical cancer, attributable to a reduction in smoking and earlier detection. Colorectal cancer has shown little change. Since the 1980s, lung cancer death rates for women have risen. In 1996, the major causes of cancer death for males were lung (25%), prostate (14%) and colorectal (13%) and for females, breast (18%), colorectal (14%) and lung (14%). Cancer accounts for 29% of all male

deaths and 25% of female deaths. There is little variation in cancer mortality for rural and remote populations.

Injury Prevention and Control

The effectiveness of preventative measures is reflected in the decline of the injury death rate. There have been declines in the rates of mortality due to road transport accidents, drowning of children up to four years old and homicide of females aged 20-39 years. The rate of mortality of people aged 55 years and older due to fire, burns and scolds has also declined. Injury accounted for 6% of all deaths in 1996. For nearly all categories of injury deaths, rates for males are higher than those for females. Injury mortality rates for Indigenous Australians and for those who reside in remote and rural areas are higher than for the overall population. For males, injury death rates in 'large rural centres' and 'remote centres' are respectively 22% and 69% higher than in 'capital cities'.

Mental Health

Until very recently, data on the mental health status of Australians was minimal. At present, suicide is the only indicator that can be supported by available data. The decline in the suicide rate (0.4% annually) is not reflected in males aged 15–34 years (rising 1.0% annually).

Information from the 1997 National Survey of Mental Health and Wellbeing enables other aspects of mental health to be considered. It is estimated that 17.7% of Australian adults had experienced the symptoms of a mental disorder at some time during the 12 months before the survey.

Diabetes Mellitus

The prevalence of diabetes in Australia is rising, and compared to other countries, is very high. Mortality from diabetes is under-reported, because many deaths are attributed to complications associated with the disease. In 1996, diabetes mellitus was cited as the underlying cause of 2.3% of deaths. The Indigenous population has one of the highest prevalence rates of type 2 diabetes in the world.

The *Australia's Health* report argues strongly that health information is needed by consumers and providers of health services to enable informed decision-making, to modify behaviour, to choose between treatment options, to establish the needs of the population, to monitor the effectiveness of intervention, to provide services equitably and to monitor health service funding.

4.5 Blood-borne Viruses

In recent years, attention has been focused on a number of blood-borne viruses that pose a significant risk to health. Specifically, HIV and hepatitis B and C viruses are of major concern.

It is important to note that the hepatitis B antigen may be found in virtually all body fluids, so the potential for transmission is great. However, the major forms of transmission occur:

- through unprotected sex
- through sharing contaminated injecting equipment
- vertically from mother to baby.

Immunisation for hepatitis B is available and will provide protection for most recipients.

Hepatitis C virus infection is most frequently acquired through direct blood to blood contact. The most common form of transmission occurs through sharing contaminated injecting equipment. There is no vaccine to protect from hepatitis C virus infection.

4.6 Stress and Coping

Stress and anxiety are a part of life which children, young people and adults will experience at various times. The degree to which stress affects people's lives is determined in part by their ability to cope with stress and manage stressful situations.

Significant losses in a person's life may be associated with stress and may challenge a person's ability to cope. Young people are often faced with experiencing loss at various levels. It may include the death of a pet, changing schools or having a close friend move away. It may also relate to family separation or the death of a person close to them. Many young people have had multiple losses in their life. In these circumstances they become vulnerable and insecure. A supportive environment can provide great assistance.

A person's capacity to cope is affected by a range of factors, some within the person and others within the environment. It can be enhanced by a supportive environment, the development of problem-solving skills and the presence of some close relationships.

Prolonged stresses are often associated with effects on physical health. Stress can also be a factor in the onset of mental illness such as depression.

Research suggests up to one in five young people experience depression at some time. Depression is considered to be more intense and more persistent than feeling down or the unhappiness experienced sometimes in normal daily life. Signs of depression can include withdrawal from friends, family and previously enjoyed activities, persistent sadness or irritability, feelings of guilt or worthlessness, and moods which disrupt the ability to manage usual activities.

The term 'psychosis' refers to a group of disorders which impair a person's sense of reality and may lead to changes in their mood; it covers a number of related disorders, including schizophrenia.

The effects of mental illness can be alleviated for most people with the careful use of prescribed drugs and professional and social support.

Young people who are experiencing stress can be helped by being given opportunities for decision-making through realistic, positive feedback on their progress and involvement in planning and goal setting. They can be encouraged to take regular exercise and to adopt a balanced lifestyle. Supportive families and teachers can make a difference. In some circumstances the involvement of health professionals will be appropriate.

4.7 Dietary Guidelines

The ***Australian Guide to Healthy Eating (1998)*** is a contemporary food guide for Australians that reflects the multicultural nature of the population. It is designed to help Australians develop the skills and knowledge necessary to choose a healthy diet and to complement and clarify rather than replace other food guides.

The new guide differs from the original categorisation of five food groups in the following ways:

- fruit and vegetables are presented as two separate groups due to their differing nutrient profiles; and
- it addresses other or 'extra' food that people consume.

The new food groups are:

- bread, cereals, rice, pasta, noodles
- vegetables, legumes
- fruit
- milk, yogurt, cheese
- meat, fish, poultry, eggs, nuts, legumes

Foods that do not fit into these groups, ie 'extra foods' (eg biscuits, oil, chocolate, fast foods) should only be chosen sometimes or in small amounts. To have a healthy diet:

1. choose foods from each of the five food groups every day
2. eat plenty of plant foods, moderate amounts of animal foods and small amounts of the extra foods
3. choose different varieties of foods from within each food group
4. drink plenty of water.

The guide also recommends the following ***Dietary Guidelines for Children and Adolescents (1995)***.

1. 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 saturate 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.

In addition, the following guidelines have been developed for specific nutrients.

1. Eat foods containing calcium.
2. Eat foods containing iron.

4.8 Physical Activity

Traditional approaches to activity have favoured a model where the development of physical fitness is the most highly valued outcome. The shortcoming of this focus is that for the majority of the population, this outcome is not attainable, sustainable or appealing.

Recent research indicates that for health benefits, high levels of fitness are not necessary. Therefore, from a public health perspective, increasing the activity level of the whole population is the priority.

The following National Physical Activity Guidelines for Australians have been established to encourage all Australians to be more active.

1. Think of movement as an opportunity not an inconvenience.
2. Be active every day in as many ways as you can.
3. Put together 30 minutes of moderate-intensity physical activity on most, and preferably all, days. Moderate-intensity exercise is defined as that which causes a slight but noticeable increase in heart and breathing rates. Any bout of at least 10 minutes activity can be counted towards the accumulation of the 30-minute daily target.
4. If you can, also enjoy some regular, vigorous activity for extra health and fitness. The added activity has shown that an optimum level of health and fitness is gained when an additional 3–4 sessions of 30 minutes vigorous activity is added to the above guidelines.

The Active Australia program is a multifaceted strategy to promote physical activity for all. It aims to address the barriers that lead to inactivity such as:

- lack of motivation
- lack of access to facilities
- lack of sport-specific skills
- injury or disability
- lack of company
- care of young children
- expense

It also devotes attention to the special needs of specific populations.

Consequently, the strategies developed to promote physical activity are largely targeted at the social and cultural factors that influence people's activity levels.

4.9 Anxiety and Arousal

The terms anxiety and arousal have been commonly used interchangeably in the media and scientific literature but they do not refer to the same psychological phenomena.

Arousal is generally interpreted and measured as a physiological process. For example, it is often measured in terms of heart rate, respiration rate or extent of sweating. It may be a response to positive emotions such as excitement or joy.

Arousal may also be caused by anxiety. Anxiety is predominantly emotional and in its simplest terms is a perceived threat. Emotions such as fear, embarrassment and depression heighten anxiety. In sport, anxiety reflects the performer's feelings that something might go wrong or that they might fail in their performance.

There are two main types of anxiety:

Trait anxiety – this type of anxiety is enduring and is a personality trait. A person who easily becomes anxious even in non-threatening situations has high trait anxiety.

State anxiety – this type of anxiety is a temporary emotional state which is a response to a threatening situation. State anxiety has two components. The first of these is feelings of nervousness, apprehension and worry which is sometimes referred to as cognitive state anxiety. The other component is somatic state anxiety which is the awareness of arousal in the body.

For many sports people, the main source of anxiety is thought to be competition and the term competitive anxiety is often used in literature. It is defined as the tendency to see competitive situations as threatening and to respond with feelings of apprehension or tension.

Some practical suggestions for reducing competitive anxiety and arousal are:

1. release stress through physical activity
2. avoid the 'relax' comment as it may actually increase tension
3. promote task familiarity, eg through pre-game routines
4. simulate games in practice
5. individualise strategies for players — player reacts differently
6. build self-confidence
7. keep errors in perspective
8. avoid discussing the team's record
9. stop athletes self-focusing.

4.10 Overtraining

There is a limit to an athlete's capacity to endure and adapt to intense training. Once this threshold is crossed, the athlete fails to adapt and performance declines. Of those athletes who train intensely, 10 en dash 20% may fall prey to the 'overtraining syndrome' – a collection of emotional, behavioural and physical symptoms that can persist for weeks or months.

Common warning signs are:

- unexpected drop in performance or competition
- mood disturbances (depression, anger, anxiety)
- general fatigue (loss of energy, vigour, enthusiasm)
- changes in sleep patterns and appetite
- lowered resistance to common illnesses
- muscle soreness.

Overtraining syndrome is primarily caused by prolonged overload training without adequate recovery. If sufficient rest is not included in a training program, regeneration cannot occur and performance plateaus or declines. Other factors such as competition, monitoring, medical conditions, diet, environment, psychological irregularities and travel can compound the stress of training and contribute to overtraining syndrome.

Recovery from overtraining syndrome may take a minimum of two weeks of rest from training, but much longer breaks may be needed in severe cases.

Planning, monitoring and communication are the keys to preventing overtraining syndrome.

4.11 Environment and Performance

The influence of the environment on performance can be significant in relation to training, preparation and competition. Factors to consider include acclimatisation, temperature regulation and altitude training.

It should be noted that research is continually being done in these areas and new findings may provide greater, or even different perspectives over time.

Acclimatisation enhances the body's tolerance of, and ability to work comfortably in, climatic conditions such as heat and humidity or cold and wind. Acclimatisation is achieved by a progressive exercise program performed in the particular climate for at least five to eight days. Research shows that athletes who are both acclimatised and specifically trained for an event derive most benefit for performance.

Physiological adaptations in response to acclimatisation to heat include increased circulatory system efficiency, improved sweat response and effective maintenance of heat balance. Many athletes report decreased incidence of nausea, dizziness and general discomfort.

The body has several natural responses to maintain heat balance including vasodilation and vasoconstriction and uses the processes of convection, radiation, conduction and evaporation.

Overexposure to heat while exercising may result in heat cramps, heat exhaustion or, in severe cases, heat stroke. Risk factors include heat exposure, water loss and high internal body temperature. At particular risk are athletes who may be required to train and compete for extended periods in hot conditions such as marathon runners and triathletes; large, muscular athletes who generate more heat; and athletes trying to make competition weights such as boxers and jockeys. Children are another special case: due to their low surface area to mass ratio, they also have difficulty in dissipating heat.

Where training and competitive events are held in cold climates, exposure to cold seems to be less of a concern. This is most likely due to the availability of adequate clothing and the fact that exercise increases the production of body heat.

Debate exists over the capacity to which altitude training is able to enhance performance when athletes return to sea level. Due to the reduced availability of oxygen in the air at altitude, hypoxia can result. Altitude hypoxia can cause physiological changes such as increased total blood volume, increased haemoglobin and red blood cell count, enhanced mitochondrial concentration and beneficial muscle enzyme changes.

One disadvantage of altitude training is that athletes cannot maintain the intensity and duration of exercise that can be achieved at sea level. One method of overcoming this is to have athletes live and sleep at high altitude but train at sea level. The ultimate effectiveness of this method and the practicalities of spending time travelling to and from training are still being debated.

Recommendations for altitude training to be effective include:

- the bulk of time spent at altitude should be at a level at or above 9,000 feet
- the length of time required to acclimatise will increase according to the altitude, eg 9,000 feet = 7-10 days; 12,000 feet = 15-21 days
- altitude exposures of less than four weeks are unlikely to provoke fully acclimatised physiological changes
- important sea level performances should be timed about two weeks after leaving altitude.

It is believed that if changes are brought about by altitude training, they will be lost three to four weeks after returning to sea level.

While altitude training has traditionally been utilised by aerobic athletes, recent research suggests that athletes who compete in events of about 2–10 minute duration may derive most benefit.