

Level

F	1	2	3	4	5	6	B6
---	---	---	---	---	---	---	----

Health-related fitness

Strand

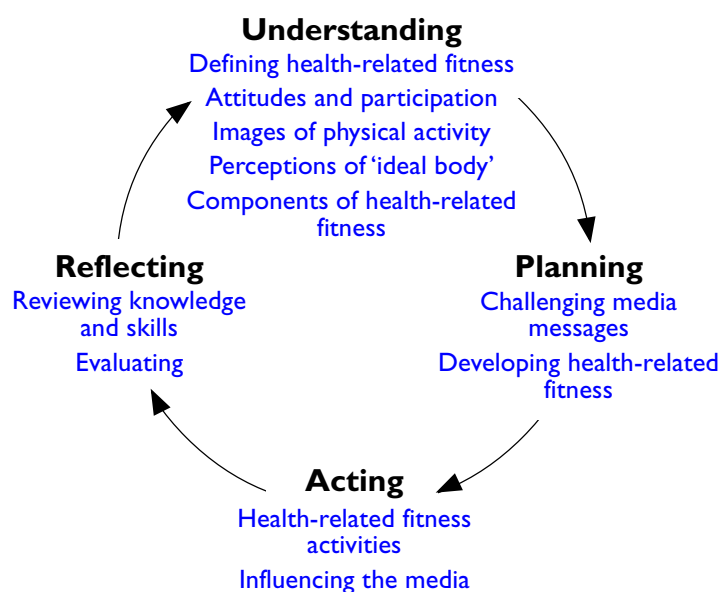
Developing Concepts and Skills for Physical Activity

Purpose

Students examine images of physical activity to gain an understanding of how such images impact on perceptions of the 'ideal body' and influence their attitudes towards, and participation in, physical activity. Through participation in a range of fitness activities, students learn about the components of health-related fitness and how to monitor their effort.

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.



Core learning outcomes

Developing Concepts and Skills for Physical Activity

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

- 4.3 Students identify and take part in a variety of physical activities that contribute to the development of particular components of health-related fitness.
- 4.4 Students explain how images of physical activity influence their own and others' participation in, and attitudes towards, physical activity.

Core content

Developing Concepts and Skills for Physical Activity

This module incorporates the following core content from the syllabus:

- relationship between health, physical activity and fitness, including benefits of health-related fitness, components of fitness, and skills for participation in fitness activities;
- factors that influence attitudes towards, and participation in, physical activities, in particular the media and notions of ideal body shapes and gender differences.

Assessment strategy

Developing Concepts and Skills for Physical Activity 4.3

The following are examples of assessment tasks that provide opportunities for students to demonstrate the core learning outcomes identified in this module.

- Students maintain a health-related fitness diary in which they record the dates they take part in a fitness activity, the type of activity it was, how long they were active for, their resting, exercise and recovery heart rates and the health-related fitness component(s) the activity develops. They should also include comments on each activity — for example, how much effort they exerted, how much they enjoyed it or if they experienced any difficulties.
 - Can the student take part in a variety of physical activities that contribute to the development of health-related fitness?
 - Can the student identify the components of health-related fitness in each of the activities?
- Students examine (teacher-selected) pictures exemplifying fitness to identify and explain what impact the image may have on perceptions of the 'ideal body' and how the image can influence people's attitudes towards, and participation in, physical activity.
 - Can the student explain how images of physical activity could influence their own and others' participation in physical activity?
 - Can the student explain how images of physical activity could influence their own and others' attitudes towards physical activity?

Developing Concepts and Skills for Physical Activity 4.4

Background information

Health-related fitness and influences on participation

For young people to incorporate health-promoting physical activity into their lifestyle and encourage others to do so, they need to become aware of the health-related benefits that can be gained from participating in regular physical activity. They need to understand the components of fitness, and their own and others' rights to engage in their choice of health-promoting physical activity, regardless of their body shape, ability or apparel.

By examining images that portray the relationship between physical activity and the 'ideal body', students can develop an understanding of how the media are able to influence perceptions of body image and, in turn, attitudes towards physical activity.

Students should also be given opportunities to develop skills to overcome the potential negative impact of media images and to influence change in the type of images used by the media and organisations so that more inclusive messages about participation are conveyed to all groups in the community.

Through opportunities to participate in a range of health-related fitness activities, students learn about ways to develop each of the components of health-related fitness (aerobic capacity, muscular strength and endurance, flexibility and body composition) and how to monitor their participation in fitness activities. They also identify the activities they enjoy most and consider ways to program physical activity into their daily lives.

Because the emphasis of this module is on personal involvement, time spent measuring fitness is inappropriate.

Terminology

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

aerobic capacity	flexibility	media images
body composition	gender	muscular endurance
body image	health-related fitness	stereotype
body type	ideal body	strength

School authority policies

Teachers need to be aware of and observe school authority policies that may be relevant to this module.

Safety policies are of particular relevance in 'Health-related fitness'. Some safety issues that teachers should consider are:

- including appropriate warm-up and warm-down activities;
- ensuring the area for the activity is suitable — for example, flat, free of stones and loose objects, large enough for the number of students participating;
- selecting activities appropriate to the skill and ability levels of students;
- providing opportunities for students to replenish fluids during and after vigorous physical activity;
- ensuring that the time of day chosen for physical activity is appropriate.

Social justice principles

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

- consider and accept that most individuals need to receive encouragement and to experience intrinsic satisfaction if they are to continue to participate in fitness activities;
- consider and accept that individuals differ in their body shape, abilities and preferred ways of developing health-related fitness;
- evaluate dominant images in the media and take action to influence changes in the types and range of images used in the media;
- consider the rights that all individuals have to access health-related fitness opportunities and to propose ways that these opportunities can be made accessible to all students, regardless of ability, background and geographical location.

Students with disabilities or learning difficulties may require some activities to be modified to optimise both 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 Coaching Council 1998, *20m Shuttle Tun Test*, kit, Belconnen, ACT.
- Australian Council for Health, Physical Education and Recreation (ACHPER) 1994, *Fitness: Upper Primary*, Brompton, South Australia.
- Australian Council for Health, Physical Education and Recreation (ACHPER) 1998, *Australian Fitness Education Award: 9–18 years*, Brompton, South Australia.
- Board of Studies New South Wales 1994, *Active Lifestyle: Years 7–10 Teaching Kit — Personal Development, Health and Physical Education*, North Sydney.
- Education Department of South Australia 1982, *Daily Physical Education: Levels 6 and 7*, Australian Council for Health, Physical Education and Recreation (ACHPER), Brompton, South Australia.
- Harris, J. & Elbourn, J. 1997, *Teaching Health-related Exercise at Key Stages 1 and 2*, Human Kinetics, Lower Mitcham, South Australia.
- Health Development Foundation 1994, *Action Pact: Upper Primary, Fitness Education Program*, Ashton Scholastic, Sydney.
- Hopper, C., Fisher, B. & Munoz, K. 1997, *Health-related Fitness for Grades 5 and 6*, Human Kinetics, Lower Mitcham, South Australia.
- International Food Information Council 1998, *10 Tips to Healthy Eating and Physical Activity for You*.
Available URL: <http://ifinfo.health.org/brochure/10kid4.htm> (accessed January 2000).
- Kirkpatrick, B. & Birnbaum, B. 1997, *Lessons from the Heart: Individualising Physical Education with Heart Rate Monitors*, Human Kinetics, Lower Mitcham, South Australia.
- National Heart Foundation of Australia 1995, *Physical Activity: High School Heart Health*, Canberra.
- National Heart Foundation of Australia 1996, *Heart Health Manual: A Resource Kit for Primary Teachers*, Canberra.
- Ratliffe, R. & Ratliffe, L. 1994, *Teaching Children Fitness: Becoming a Master Teacher*, Human Kinetics, Lower Mitcham, South Australia.
- Tribune Media Services, *The Fitness Files*.
Available URL: <http://chitrib.webpoint.com/fitness/> (accessed January 2000).

Activities

Students are required to keep a personal health-related fitness diary throughout this module.

Understanding

DEFINING HEALTH-RELATED FITNESS

Developing an understanding of what constitutes health-related fitness

► Students define health-related fitness (as opposed to skill-related fitness) and discuss its importance in modern-day life. They record an agreed-to definition in their fitness diary.

Focus questions could include:

- What is health-related fitness?
- What is the value of health-related fitness in everyday life?
- What is skill-related fitness?
- Who can develop health-related fitness? Can any groups not develop health-related fitness?
- Can health-related fitness be stored in the body?
- What lifestyle changes in today's society make it important for people to include health-related fitness activity into their daily lives?

Teaching considerations

Ensure students understand that:

- Health-related fitness enables us to fulfil our daily tasks and maintain health. It can be important in emergencies (for example, to get help when a friend has been hurt); to meet the demands of daily life in the home, around the school or business (for example, lifting and moving objects); when playing sports and enjoying recreation activities; and for keeping our bodies healthy, both physically and mentally.
- Skill-related fitness is to do with effective performance in sporting activities.
- Improvements in technology have resulted in machinery handling much of the physical labour that used to be a part of daily life. Unless individuals incorporate physical activity into their lives they are at risk of becoming sedentary and developing lifestyle-related health conditions, such as lower back pain, heart disease and obesity, especially if combined with other poor lifestyle habits, such as smoking and a maintaining a high-fat diet.

Highlight to students that although many people are active in their daily lives, they need to consider the range of those activities and the benefits to health-related fitness. Discuss the fitness implications of household chores, taking care not to reinforce gender stereotypes.



Resource Sheet 1

- Students complete a questionnaire about their physical activities (see Resource Sheet 1, 'My physical activity habits'). Once completed, they:
 - examine their responses to identify habits that contribute to their health-related fitness and nominate areas for improvement;
 - identify other areas of physical activity that could have been included in the questionnaire;
 - record their findings in their fitness diary.

ATTITUDES AND PARTICIPATION**Understanding the factors that influence attitudes towards, and participation in, physical activity**

► Students brainstorm a list of reasons why they and others participate or avoid participating in physical activity.

Focus questions could include:

- Why might students participate or avoid participation in health-related fitness?
- Why might students with physical or intellectual impairments participate or avoid participation in health-related fitness?
- Why might individuals for whom English is a second language participate or avoid participation in health-related fitness?
- Why might the elderly participate or avoid participation in health-related fitness?
- Why might individuals who are overweight participate or avoid participation in health-related fitness?

Teaching consideration

Highlight to students that people avoid physical activity for diverse reasons, such as lack of time, family responsibilities, perceived lack of ability or skill, poor body image, illness, and cultural expectations.

IMAGES OF PHYSICAL ACTIVITY**Developing an understanding of how media images can influence people's perceptions**

► Students examine a range of images of physical activity. They identify images that are most dominant and compare how the genders are portrayed. They then reflect on how their own body image compares.

Focus questions could include:

- What is the dominant body image portrayed in the media?
- What does the image imply about the individual's fitness level? About his or her ability level? About his or her type of clothing?
- Do these images present males and females differently?
- How are girls and women portrayed? How are boys and men portrayed?
- Are active or passive images presented?
- Which cultural, social or ethnic groups do these pictures mostly represent?
- Are any of these images of people for whom English might be a second language, or who might have a physical or intellectual impairment or who might live in a remote location?
- Which physical activities dominate the images? Why? Which are under-represented?
- Do you look like the individuals in these images? Do you want to look like that? Why?
- How do you feel about your own body in relation to the images portrayed?
- Do you have the clothing to look like the individual(s) portrayed?
- How do these images influence your expectations about participation in physical activity?
- Who wants us to aspire to be like the people portrayed? Why?

Teaching considerations

Gather a range of images of physical activity from various media sources.

Discuss messages in images as conveyed by clothing, body shape, muscle tone, attractiveness/beauty.

Discuss whether or not media images associated with physical activity depict males in action and females in supporting roles.

► Students establish a list of words taken from descriptions that accompany media images of males and females involved in physical activity. They compare the language used for each gender and identify any stereotypes represented.

Focus questions could include:

- What words do the media use to describe males and females involved in physical activity?
- Are the words different for males and females? How are they different? Why would they be different?
- Do the words used describe all males and females who participate in physical activity?
- Are these words used to describe stereotypes?
- What effect do these words have on your ideas of who engages in physical activity?
- Who benefits from this use of language and who might be disadvantaged?

Teaching consideration

Characteristics such as confidence, leadership, physical prowess, endurance and competitiveness are more often depicted as male characteristics. Women competitors often have their physical appearance, their maternal role or their emotional state commented on.

PERCEPTIONS OF 'IDEAL BODY'

Investigating how images of the 'ideal body' can influence attitudes towards physical activity

► Students discuss the potential influence of media images on their own attitudes towards physical activities. They also discuss the potential influence on individuals who are different by way of social group (gender, age, impairment, cultural background, economic background) and body type.

Focus questions could include:

- What is your attitude towards physical activity as it is portrayed in media images?
- How do these images make you feel about your own participation in physical activity?
- Do you aspire to be like the individuals in these images?
- Do the images encourage or discourage you to participate? Why?
- Would this image encourage or discourage those with physical impairments to participate? Why?
- Would this image encourage those from all cultural backgrounds to participate? Why?

Teaching consideration

Be aware of the sensitive nature of this topic and how it may affect some students.

COMPONENTS OF HEALTH-RELATED FITNESS

Developing an understanding of the components of health-related fitness

R Resource Sheets 2a–c

► Students participate in an exercise circuit designed to develop different components of fitness (see Resource Sheets 2a–c, ‘Health-related fitness circuit’).



HEALTH-RELATED FITNESS • UPPER PRIMARY

Teaching considerations

Ensure students understand that completing the circuit is not a competition. Encourage them to complete each activity to the best of their ability and at their own pace.

Go through each of the circuit stations with students, demonstrating how each activity should be carried out.

Make cards from Resource Sheets 2a–c, and place the relevant one at each station to remind students of the exercise required.

Students could record comments about their participation in their fitness diary.

For other circuit ideas, refer to *Australian Fitness Education Award: 9–18 Years* (ACHPER 1988), *Health-related Fitness for Grades 5 and 6* (Hopper et al. 1997, pages 31–33) or *Active Lifestyle: Years 7–10 Teaching Kit — Personal Development, Health and Physical Education* (Board of Studies New South Wales, 1994, pages 110–13).

R Resource Sheets 3a, b

► Students complete the table on Resource Sheet 3 to show the fitness component each exercise develops and the body part that benefits.

Teaching consideration

The hints on Resource Sheet 3a could be given to students.

► Students identify the major health-related fitness component relied upon to perform a range of physical activities in daily life and record these in their fitness diary.

Planning

CHALLENGING MEDIA MESSAGES

Proposing inclusive media images to influence more people to participate in health-related fitness activities

► Students suggest the type of images the media should use to encourage more people to participate in health-related fitness pursuits.

Focus questions could include:

- What images would influence all groups to participate in health-related fitness?
- To develop favourable attitudes towards health-related fitness, what images would influence individuals:
 - for whom English is a second language?
 - who have physical or intellectual impairments?
 - living in a range of locations (for example, urban, rural or isolated areas)?
 - who are elderly?
 - who are adolescents?
 - of different body types?

Teaching consideration

Point out to students that if the media used images that reflected a range of body types — different shapes and sizes, both able-bodied and impaired, and of different age groups and cultural background — individuals might identify physical fitness as being relevant for everyone.

► Students create images of children — able-bodied and impaired, of different body types and from different backgrounds — engaging in health-related fitness activities. They suggest where they could send their images to influence change in the media.

Teaching considerations

Students could create images using photographs, drawings or murals.

Class-produced images could be forwarded to a particular magazine or newspaper with an accompanying letter.

Class-produced posters could be displayed in the school and around the community.

DEVELOPING HEALTH-RELATED FITNESS

Investigating activities that develop the components of health-related fitness

► Students identify activities that can develop each of the components of health-related fitness.

- They brainstorm, conduct research, view a video or read brochures.
- They suggest a set of flexibility exercises, and list other activities that will develop their aerobic capacity, strength and muscular endurance.
- They identify safe ways to engage in the activities.

Focus questions could include:

- What exercises would develop your flexibility?
- What are recommended ways to develop flexibility? Why are these recommendations made?
- What activities would develop your aerobic capacity?
- What are recommended ways to monitor your participation in aerobic activities? Why are these recommendations made?
- What activities would develop your muscular endurance?
- What are recommended ways to develop muscular endurance? Why are these recommendations made?

Teaching consideration

Have students work in groups to investigate the ways to develop a particular health-related fitness component.

► Students form new groups to share their findings from the previous activity. In these small groups they try some of the exercises and activities, and follow the recommendations they identified for monitoring participation. They could:

- try a set of flexibility exercises recommended for different body parts, holding the stretches and not bouncing;
- find a comfortable pace at which they can jog or jump a rope for a continuous period of time;
- monitor their exercise and recovery heart rate after a bout of continuous movement;
- try some individual and partner strength activities, taking care not to strain or overexert themselves.

► Students devise a set of health-related fitness activities suitable for groups to perform in class time and an individual set of activities they can carry out in their own time. They identify ways to adapt activities to ensure all students can participate.

Focus questions could include:

- Are all students able to participate in the classtime program?
- In what ways can those students with calipers or in wheelchairs participate?

Teaching considerations

Students might participate in aerobic dance or jump rope activities, an obstacle course, a fitness circuit, a distance walk, a fitness relay, fitness games or individual and partner strength challenges.

For more ideas, refer to the list of support materials provided at the front of this module.

Students could record personal modifications of activities or other information about their individual endurance in their fitness diary.

Acting

HEALTH-RELATED FITNESS ACTIVITIES

Taking part in a class health-related fitness program

- ▶ Students participate in the class health-related fitness activities and the activities they developed for their own time. They identify the health-related fitness component(s) developed in each activity and monitor their exertion and enjoyment.

Teaching consideration

Ensure students apply their knowledge about safe ways to participate:

- Do not overexert yourself.
- Monitor heart rate before and after aerobic activities.
- Hold stretches rather than 'bounce' through them.

INFLUENCING THE MEDIA

Taking action to influence the types of health and fitness images used in the media

- ▶ Students write a letter to a magazine or newspaper, suggesting the publication use a full range of individuals in their images to encourage more people to participate in physical activity.

Reflecting

REVIEWING KNOWLEDGE AND SKILLS

Reviewing what has been learnt about developing health-related fitness

- ▶ Students discuss what they have learnt about the components of health-related fitness and how media images of physical activity influence their own and others' attitudes towards, and participation in, health-related physical activity.

Focus questions could include:

- What have you learnt about the ways you and other individuals can achieve health-related fitness?
- What did you learn about the relationship between media images and attitudes towards health-related fitness?
- Have your attitudes to physical activity changed? How?
- What skills have you acquired to enable you to monitor your participation in health-related fitness activities?
- Did the activities you participated in actually improve your level of health-related fitness?
- What do you need to know and do to bring about improvements in your level of health-related fitness?
- How confident are you that you will pursue physical activity in your own time for health-related fitness throughout the year and through your secondary school years, your post-school years and your retirement years?
- What other skills do you need?
- What other support do you need?

▶ Students review notes they have made in their diary about participation in health-related fitness activities. They may wish to discuss these with other students or with a teacher to further develop activities to promote their fitness.

EVALUATING	Reflecting upon the teaching–learning process
-------------------	--

▶ Students reflect upon the effectiveness of using the inquiry approach in the teaching–learning process.

Focus questions could include:

- Did the inquiry process assist you to identify the information you needed?
- Did it broaden your knowledge about health-related fitness?
- Did it broaden your knowledge about the influence of images on attitudes towards, and participation in, physical activity?
- Did it challenge your current attitudes and broaden your perspective about health-related fitness for all?
- Did the activities help you to develop useful skills? If so, how? If not, which activities might better assist you to develop these skills?

My physical activity habits



Circle a number for each of the following statements. Add the circled numbers to get your score.

Physical activity habit	Always	Usually	Some-times	Never
I walk, rollerblade or use a bicycle rather than go by car.	3	2	1	0
I walk up steps rather than use the lift.	3	2	1	0
I make time to do an aerobic activity at least three times a week outside of school hours.	3	2	1	0
After school, I am physically active, instead of watching television or sitting at a computer.	3	2	1	0
I regularly participate in sports, dance or other physical activity.	3	2	1	0
I get puffed during physical activity at least three times a week.	3	2	1	0
I stretch a range of joints — my shoulders, hips, legs, trunk, ankles — at least three times a week.	3	2	1	0
When I stretch a joint I move it through its full range of movement and hold the stretch for about eight seconds.	3	2	1	0
I do stretching during television commercials.	3	2	1	0
I consciously bend my knees and keep my back straight when lifting objects.	3	2	1	0
I do arm-strengthening exercises at least three times a week — for example, hanging, pulling, swimming, climbing, lifting.	3	2	1	0
I monitor my heart rate during ongoing physical activity.	3	2	1	0

Score

- 25–36 You are achieving health-related fitness independently.
- 19–24 You are doing well, but could make improvements.
- 15–18 You need to make significant changes to your physical-activity habits.
- < 14 You need to make major changes to achieve health-related fitness.

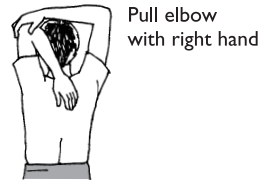
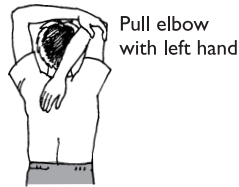
Health-related fitness circuit



Work through the following nine stations, spending 60 seconds at each one. Aim to perform each activity as best as you can. Think about each activity as you do it and concentrate on the effect it is having on your body.

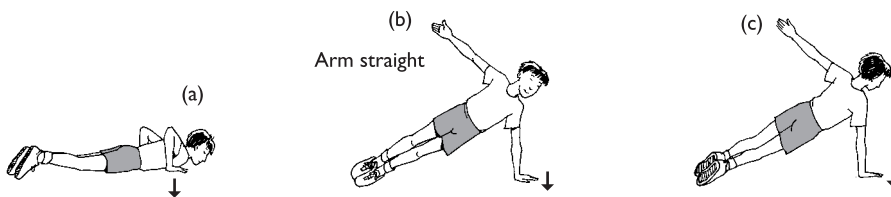
Station 1: Shoulder stretches

Start with one arm bent, elbow at head level. Reaching backwards, use the opposite hand to pull the upper arm towards the midline of the body. At the point of resistance, hold the position for 8 seconds. Repeat the process for the opposite shoulder.



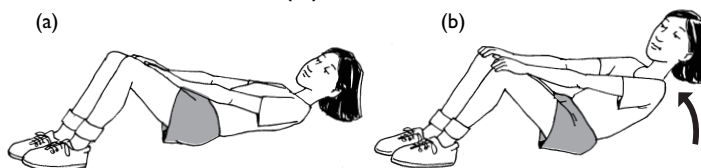
Station 2: Side-standers

Lie on stomach with chest touching floor (a). Push-up and rotate body so you support weight on left hand and foot for 8 seconds (b). Return to starting position and repeat the exercise, supporting weight on right hand and foot for 8 seconds (c).



Station 3: Curl-ups

Lie on back with knees at 90-degree angle and arms beside thighs (a). Lift head and slide hands up over knees until upper back is raised from floor and chin touches chest (b). Hold for 3 seconds and repeat.



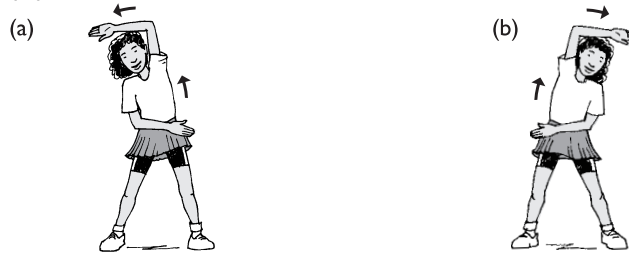
(continued)

Health-related fitness circuit (continued)



Station 4: Trunk stretches

Stand with feet apart and left arm bent overhead. Lean trunk in the direction of the raised arm and hold for 8 seconds (a). Repeat for the other side of the body (b).



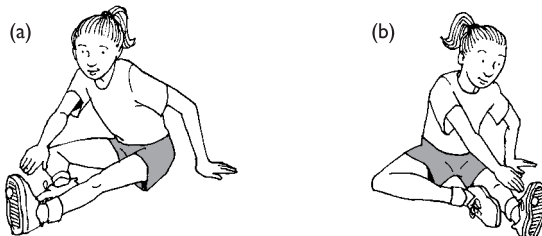
Station 5: Jump rope

Use a short rope to jump backwards or forwards fifty times. Use a two-foot jump or a running step.



Station 6: Leg stretcher

Sit with one leg straight, other leg bent in towards thigh. Keeping leg straight, use opposite arm to reach toes, and hold stretch for 8 seconds (a). Repeat on opposite side of body (b).



(continued)

Health-related fitness circuit (continued)



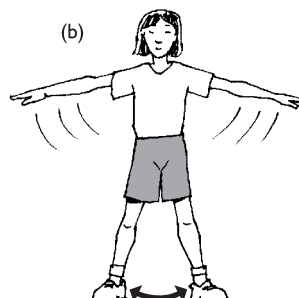
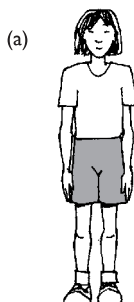
Station 7: Jogging

Run at a comfortable pace around a designated area — for example, a netball court.



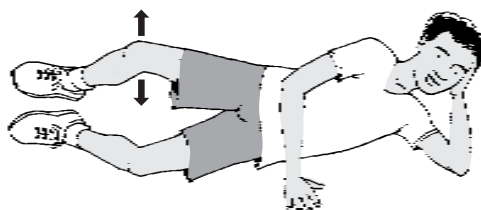
Station 8: Stride jumps

Stand with feet together, arms by side (a). Jump off ground moving feet and arms away from body (b). Jump to return to start position. Repeat in quick succession.



Station 9: Side leg raises

Lie on one side with head supported by bent arm. Place other arm on the mat in front of you for balance. Raise upper leg and hold for 8 seconds. Repeat, changing sides.



Health-related fitness components



Complete the table on Resource Sheet 3b to show the fitness component each exercise develops and the body part that benefits.

Hints

- If the exercise involves stretching or lengthening the muscles at a joint, it is developing the flexibility component of fitness.
- If the exercise involves exerting a force against a resistance, it is developing the component of muscular strength.
- If the exercise requires you to keep on exerting force against a resistance, it is developing muscular endurance.
- If the exercise places demands on your heart and lungs, so that your heart beats faster and you become puffed, it is developing the cardio-respiratory component.
- The following body parts and joints can benefit from health-related fitness exercises: shoulders and upper arms, lower arms, trunk, abdomen, lower back, upper legs, lower legs and calf, neck.


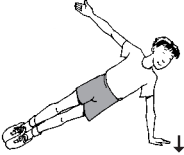






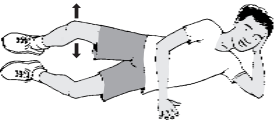


(continued)

Health-related fitness components (continued)



Resource Sheet 3b

Exercise	Fitness component developed	Body part benefiting
1. 		
2. 		
3. 		
4. 		
5. 		
6. 		
7. 		
8. 		
9. 		

HEALTH-RELATED FITNESS • UPPER PRIMARY

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

ISBN 0 7345 2019 0

© The State of Queensland (The Office of the Queensland School Curriculum Council) 2000

Queensland schools are permitted to make multiple copies of this module without infringing copyright provided the number of copies does not exceed the amount reasonably required for teaching purposes in any one school. Copying for any other purposes except for purposes permitted by the Australian *Copyright Act 1968* is prohibited.

Every reasonable effort has been made to obtain permission to use copyright material in all sourcebook modules. We would be pleased to hear from any copyright holder who has been omitted.

The State of Queensland and the Queensland School Curriculum Council make no statements, representations, or warranties about the accuracy, quality, adequacy or completeness of, and users should not rely on, any information contained in this module.

The State of Queensland and the Queensland School Curriculum Council disclaim all responsibility and liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs whatsoever (including consequential loss) users might incur to person or property as a result of use of the information or the information being inaccurate, inadequate, or incomplete.

Any inquiries should be addressed to:
Queensland School Curriculum Council
PO Box 317
Brisbane Albert Street, Q 4002
Australia

Telephone: (07) 3237 0794
Facsimile: (07) 3237 1285
Website: <http://www.qscc.qld.edu.au>
Email: inquiries@qscc.qld.edu.au

Illustrations by Stephen Francis

PIP 994030
