

O'KEEFFE | WALSH CLEARY | MILLAR | QUINLAN

VCE PHYSICAL EDUCATION

4TH EDITION

UNITS 1 & 2



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VCE PHYSICAL EDUCATION | UNITS 1 & 2 4TH EDITION



VCE PHYSICAL EDUCATION | UNITS 1 & 2 4TH EDITION

Michelle O'KEEFFE Kirsty WALSH Vaughan CLEARY Sam MILLAR Mark QUINLAN

CONTRIBUTING AUTHORS David Smyth | Wayne Judge | Fiona Shepherd





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	Millar, Sam, author.
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HOW TO USE THIS RESOURCE



An engaging image introduces each chapter to capture students' interest. The Key Knowledge and Key Skills from the VCE Physical Education Study Design (Units 1 and 2, 2017–2021) that are covered in this chapter are listed, along with a chapter preview diagram that gives a snapshot of the chapter content at a glance.



All lessons come complete with clear and colourful diagrams to assist visual learners. Key terms are bolded and definitions can be found in the margins. studyON references are placed beside key concepts to direct students to summaries and practice questions online.



CHAPTER 4 REVISION

KEY SKILLS

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 i 1 mark for bear occurs
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Ney skills, it is important to remember the following: e classified as acute, chronic and overuse > classified are addenial force (clinet contact) or an is an atticut the hard or soft sissue of the body tratagines to prevent injury include physical preparation cool-down warm-up and cool-down physical aids such as pro functioning of the mulicul ctive equipment, taping and bracin keletal system. PRACTICE QUESTION CCTCE GUESTION (adapted from ACHECR 2015) adapted from ACHECR 2015) adapted from ACHECR 2015 units. During day one of the First Test and Adapted. Datasets and adapted constitution after her test and Adapted. Datasets and in his function of the test and adapted and a test. Carlos de test and a laser in own of the landsched within her was a leave after or strong adapted and and and and adapted and adapted adapted adapted and adapted adapted and adapted Based adapted adapted adapted adapted adapted Based adapted a Explain why a last such as this experienced by Clarke in his right (
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ppropriate level of physical preparation to e nds of betting, bowling and fielding for crick skult of fational

RACTISE THE KEY SKILLS PRACTISE THE KEY SKILLS 1 Describe seth of the three classifications of injurise and how tray occur. 2 Oution physical activity short and exercise. Injury in physical activity, short and exercise. 3 Decuss two physical activity, short and exercise.

Address these time the KEY SKILLS

KEY SKILLS EXAM PRACTICE

Examine a variety of causes of musculosketed Describe and implement the correct application in a variety of aporting activities to maintain or system

Imon type of is in part a, 1 ute, chronic or overuse. Injuries can be s email force, or indirect contact, much

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Acute and illnesses o system qui SearchEr

occur to soft tissue such as skin, ligaments, tendons and muscles; and to hard uch as bones. Common types of injuries include cuts, abrasions, tears, strains, os ación as lonces. Common figues en folia de intervisión construintes, storais, ación de la construintes de train en la construinte de la construinte de la construinte en la construinte de la construinte de la construinte de la construinte en la construinte de la construinte de la construinte de la construinte en la construinte de la construinte de la construinte de la construinte en la construinte de la construinte de la construinte de la construinte en la construinte de la construinte de la construinte de la construinte en la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte entité de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construinte de la construin use arthritis, subprovisi and back juit. Interactivities of the interaction of the inter egeneration or postural misalignment. uree for musculoskeletal conditions include participation in intenance of healthy body weight, limiting sedentary behavior al physical activity, maintenance of mating book weight, intering associates behaviour to the physical activity of the physical activity of the physical activity of the intering provedent for the theter, an appropriate warm-g and cod down; use of protectivity intering the physical activity of the physical of theses. Intering the physical activity of the physical of theses, in the physical physical activity of the physical of these as applications activity of the physical of the physical of these as a significant physical physical activity of the physical of the physical of the attributes activity of the physical of the physical of the physical of the attributes and is here, it is apportion at the physical of the appropriate for the physical activity of the attributes and is here of the physical of the physical of the appropriate for the physical activity of the additional of the attributes and is here of the physical of the physical of the appropriate for the physical of the attributes and is here of the physical of the physical of the appropriate physical of the attributes and is here of the physical of the physical of the appropriate physical of the attributes and is here of the physical of the physical of the appropriate physical of the attributes and is here of the physical of the physical of the appropriate physical of the attributes and is here of the physical of the physical of the appropriate physical of the attributes and is here of the physical of the physical of the attributes and is here of the physical of the physical of the attributes and is here of the physical of the physical of the attributes and is here of the physical of the physical of the physical of the attributes and is here of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the physical of the phy MULTIPLE CHOICE QUESTIONS

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10 Taping can assist in the prevention of injuries to a joint via (A) whataching movement around a joint. (B) exoluting movement around a joint. (D) all of the above.
EXAM QUESTIONS
Question 1 The following raph outlines the body regions injured across a range of sports, for which hospitalization was required in 2011-12. Heat Boards (argue and argue and argue argue and argue arg
Biox & Konam Wirk & Kona Wirk & Kona Kins & Kona Other and unpooline 0 2000 Nuchar of casas Nuchar of casas
a. From the graph, klendly the most common body region injured. 1 mark Modelly a discussion characteristic in parts. Direct: Indirect: Orense: Orense: Orense:
of an injury occurring in the body region identified in part a. 2 marks Question 2 (adapted freen ACHPER Trial Exam 2014, section 1 and 2) Identify and justify what type of injury would be most common in
rugpy and other contact sports. 2 marks Question 3 is idealed from ACHPER Trial Exam 2014, westion 1 and 2) There are many arguments that highly physical sports such as rugby should separate junior competitions based on weight and not age. Discuss how this may lead to decrease thingires.
Question 4 logisties to the kace and ankle are common in busketbull. For each of the following areas, describe a presentative measures that could be implemented to reduce the mumber of kace or ankle injuries to the members of a busketbull team. a. training b. equipment. 2 marks

At the end of each chapter is a substantial revision section which will assist all students in revising content. Key Skills are covered in detail, with an explanation, practice question and strategies, and further Key Skills exam practice. Students will also find a full chapter summary, a set of multiple choice questions and practice exam questions invaluable in revising each topic.

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PREFACE

Live It Up 1, Fourth Edition is an exciting and valuable resource for teachers of senior Physical Education. The student textbook and support material have been written for the re-accredited Victorian Certificate of Education Physical Education Study Design (2017–2021). This edition contains resources suitable for the modern educational environment. The supporting eBook uses the advantages of digital technologies to provide students and teachers with stimulating and engaging learning activities.

The author team of *Live It Up 1*, *Fourth Edition* is made up of highly experienced, practising teachers. The Australian Council for Health, Physical Education and Recreation (ACHPER) Victorian Branch acknowledges Michelle O'Keeffe, Kirsty Walsh, Vaughan Cleary, Sam Millar and Mark Quinlan for their outstanding contribution to the development of this learning resource.

ACHPER is the professional association for educators working in physical education, health education, sport and recreation. It supports educators in these areas in terms of professional learning, resources and other services, aiming to promote healthy lifestyles.

Trevor Robertson President ACHPER, Victorian Branch



Unit 1



The human body in motion

OUTCOME 1

Collect and analyse information from, and participate in, a variety of practical activities to explain how the musculoskeletal system functions, and its limiting conditions, and evaluate the ethical and performance implications of the use of practices and substances that enhance human movement.

OUTCOME 2

Collect and analyse information from, and participate in, a variety of practical activities to explain how the cardiovascular and respiratory systems function, and the limiting conditions of each system, and discuss the ethical and performance implications of the use of practices and substances to enhance the performance of these two systems. **INQUIRY QUESTION** Is this physical activity, sport or exercise?



CHAPTER

Introduction to the concepts of physical activity, sport and exercise

VCE Physical Education is the study of movement. Some topics relate to sports performance and others focus on factors that influence the participation in and outcomes of movement.

KEY KNOWLEDGE

- The concepts of physical activity, sport and exercise
- Social, cultural and environmental enablers and barriers to movement such as family, peers, socioeconomic status, level of education, cultural values, geographic location and access to facilities

KEY SKILLS

- Define and participate in a range of physical activities, sports and exercise
- O Describe the social, cultural and environmental influences on movement

CHAPTER PREVIEW





KEY CONCEPT Physical activity, sport and exercise refer to different types of movement. It's important to identify the influences that either enable people to exercise or prevent them from doing so.



Physical activity is any movement of the body produced by skeletal muscles, resulting in energy expenditure. Physical Education is the study of human movement. There are different reasons for studying this. We study the relationship between movement and health, and movement and performance. Some movements are performed to maintain good health and others are performed to gain a competitive advantage in sports. The emphasis of studying movement for health is different from the emphasis of studying movement for sports performance. For this reason, it is helpful to be able to categorise the types of movement. For example, physical activity is not the focus for an athlete; they are focused on sporting performance. A person training for a fun run is more focused on regular and planned exercise rather than increasing their general amount of physical activity.

The terms physical activity, sport and exercise are often used interchangeably. While they all involve movement, they are different in their application. Sport is organised and competitive, exercise is often associated with activities people participate in to increase their fitness, and physical activity is a broad term relating to various forms of movement.

VCE Physical Education covers a range of topics related to maximising sports performance, the effects of exercise on the body and physical activity participation. Many of the content areas in VCE Physical Education will relate to all three: physical activity, sport and exercise. At times, the content will relate to only one of these areas.

Physical activity is any activity that involves or requires some form of physical exertion. It includes sport, play, active transport, chores, games, fitness activities, recreation and some forms of work. Some examples of physical activity include children playing in the playground, adults walking to work or a family bike ride.



FIGURE 1.1 Bike riding is a form of physical activity.

Sport comprises a range of activities that are highly organised and involve rules, complex skills and tactics, physical exertion and competition between participants. Examples of sport include playing on a basketball or hockey team.



Exercise is physical activity that is planned or structured. It involves repetitive body movement done to improve or maintain one or more components of fitness. Participation in a Zumba class, going for a run or doing weight training are examples of exercise.



Sport is a range of activities that are highly organised and involve rules, complex skills and tactics, physical exertion and competition between participants.

FIGURE 1.2 Competitive sports such as basketball involve rules and skills that require training to master.

Exercise is defined as physical activity that is planned or structured, involving repetitive body movement done to improve or maintain one or more components of fitness.

FIGURE 1.3 A Zumba class is an example of exercise.

All	Physical activity	Sport	Exercise
Involve movement	Any body movement that results in energy expenditure	Highly organised Involves rules, complex skills, tactics and competition	Planned, structured, repetitive body movements Often aimed to improve fitness

TABLE 1.1 Comparison of physical activity, exercise and sport

TEST your understanding

1 Take a brief look at the other chapters in Unit 1 of this textbook. Create a table with three columns and two rows. Label the columns 'physical activity', 'sport' and 'exercise'. In each column, list a chapter number and outline how a topic from that chapter may relate to each of these headings.

- **2** Use a Venn diagram to show the similarities and differences between physical activity, sport and exercise.
- **3** For each of the following, indicate whether it is an example of physical activity, sport or exercise.

Activity	Physical activity	Sport	Exercise
Gardening			
Walking to the shops			
Playing badminton			
Running laps of an oval			
Going for a ride along a bike path			
Using the stairs rather than the escalator			
Playing four-square			
Using the treadmill at the gym			
Swimming laps			
Digging holes			
Doing pushups			
Playing for a soccer club			
Climbing a tree			
Doing sprints			
Riding a horse			
Body-boarding			

eBook plus

Interactivity Sport, exercise, activity? Searchlight ID: int-6615

Social, cultural and environmental enablers and barriers to movement

KEY CONCEPT The factors that affect movement are complex. For example, a person's physical activity behaviour is the result of a complex interaction between their personal beliefs, the influence of those around them and their environment. The determinants of movement in sports are also complex: the game score, position of other players, weather, and the player's confidence, genetics and training history are some of the factors that combine to produce movement.

There are many factors that influence a person's participation and success in physical activity, sport and exercise. These factors include two categories: 1) sociocultural factors and 2) environmental factors. Some of these factors are listed in table 1.2 below. **Sociocultural influences** are a combination of social and cultural factors. Social influences refers to power structures within society and social interactions and relationships, as well as political and economic factors. The cultural component relates to shared ways of thinking and acting (ideas, values, beliefs and behaviours) which differ from one culture to another or within cultures.

Environmental influences relate to the characteristics of the environment where people live and spend their time. Environmental influences could relate to policy or the built/natural environment. Examples of policy-related factors may be school policies about physical activity and active play. Policies related to road safety such as car speeds in built up areas could also influence physical activity. The built environment relates to human-made facilities such as recreation centres, bike paths, gyms and ovals. The natural environment includes factors such as the weather, oceans, rivers and proximity to outdoors.

Sociocultural and environmental influences can have a positive or negative effect on a person's movement. These are referred to as enablers and barriers.

An **enabler** is something or someone who makes it possible for a particular thing to be done. It has a positive effect on one's physical activity behaviour or outcome of movement.

A **barrier** is something that prevents progress or makes it difficult for someone to achieve something. It has a negative effect on one's physical activity behaviour or outcome of movement.

Sociocultural influences are the combination of social and cultural influences on an individual. Social influences include the interactions an individual has with family, peers and teachers. The cultural component relates to shared ways of thinking and acting (ideas, values, beliefs and behaviours).

Environmental influences are characteristics of the environment in which people live and spend their time that either enable exercise or create a barrier which can prevent people from exercising.

An **enabler** is something or someone that has a positive effect on one's physical activity behaviour.

A **barrier** is something or someone that has a negative effect on one's physical activity behaviour.

TABLE 1.2 Sociocultural and environment	ental factors that influence movement	atudu 🔽)
Sociocultural factors	Environmental factors	studyon	<u>}</u>
Social	Access to facilities	Unit 1	Social and
Income	Geographical location	AOS 1	enablers
Level of education	Distance to recreational facilities	Topic 1	and barriers
Ethnicity/race Gender Socioeconomic status	Safety Weather	Concept 2	(pnysical activity) Concept
Cultural Cultural norms Ethnicity National traditions			summary and practice questions

There are factors that are unique to each individual such as their physiology, genetics, maturation rates and physical ability/disability. These factors are not covered in detail in this chapter but are referred to in other chapters of books 1 and 2. For the purpose of this chapter, they are also classified as sociocultural influences.



FIGURE 1.4 A skate park is a human-made facility that encourages physical activity.



Table 1.3 provides some examples of how sociocultural and environmental factors can be enablers or barriers to movement.

TABLE	1.3	Examples o	f sociocultural	and	environmental	enablers	and	barriers
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	Barrier example	Enabler example
	Social	
Income	Low family income may prevent a child from participating in swimming lessons. This will reduce the likelihood of the child swimming for exercise or activity.	High family income could enable a child to have regular coaching with expert coaches, providing an opportunity for the child to develop into an elite tennis player.
Education	A child who attends a school without a PE teacher may not learn the fundamental movement skills needed to play sport. This may reduce their participation because they don't have the skills or confidence to play sport.	Knowledge that weight-bearing exercise influences bone density may result in an older adult being more likely to be active.
Gender	Girls may be less likely to develop skills in a particular sport because boys are given more opportunities and receive better coaching in that sport; for example, Australian Rules football.	Males are more likely to develop skills in sports such as rugby because they have more opportunities and male role models in that sport.
Family	Children whose parents don't value the importance of physical activity may have fewer opportunities to be active.	Children who play a lot of sport with their siblings may be more likely to develop the skills needed to be active.
Peers	A lack of interest in sports and activity within a friendship group would provide fewer opportunities for an adolescent to be active.	Using a Fitbit to compare the number of steps with friends may encourage an individual to be active.
	Cultural	
Ethnicity	Some ethnic groups may value participating in sport, or particular sports, more than others. This may prevent them from developing skills in other sports or, if the sports that they are familiar with are not accessible, they may be inactive.	People of a particular ethnicity may be genetically suited to particular sports. Therefore, they may find it easy to participate in that sport. For example, people from Kenya are typically good at endurance sports, so excel at long- distance running.
Cultural norms	Girls may be placed at psychological and social risk in some sections of society if they choose to participate in certain sports, due to cultural norms.	Australia's pride in sporting achievement means that the government provides funding to programs that encourage physical activity, providing Australians with more opportunities to be active.
	Environmenta	al
Access to facilities	Living in a high-rise apartment could reduce opportunities to be active within the local environment.	A workplace with an onsite gym provides employees with more opportunities to be active.
Safety	Absence of street lights would discourage some from being active when it is dark.	Bike lanes on the road would make riding safer and increase the number of people cycling to work.
Weather	Rain will reduce the likelihood of people exercising, due to discomfort and increased inconvenience.	Mild sunny days can encourage activity because there is less risk of sunburn and people tend to be more motivated.



TEST your understanding

- 1 Explain the phrase 'sociocultural influences on movement'.
- 2 Identify two sociocultural factors that are not listed in table 1.2.
- **3** Describe how these two factors can influence movement.
- 4 Define the terms 'enablers' and 'barriers'.
- 5 Identify two possible subcategories that may exist under the heading of 'environmental influences on movement'. Provide an example of each.

APPLY your understanding

- 6 (a) As a class or in groups, brainstorm a separate list of sports, physical activities and exercises that you could do at school.
 - (b) Form groups of six or eight students.
 - (c) From the list that you established during the brainstorm, choose at least one physical activity, one form of exercise and one sport in which your group will participate.
 - (d) Split your group into pairs. Each pair will then run a 15-minute group personal training session for the rest of the group. In preparation for your session, you will write up a lesson plan that includes key points of communication, details and timing of activities and considerations for safety. Please remember to stay true to your form of activity. In your planning, please remember that your priority is to show an example of physical activity, sport or exercise so that the members of the group can discover the similarities and differences between these.
 - (e) After all groups have had their turn, head back to the classroom and make some notes about the similarities and differences between physical activity, sport and exercise.
 - (f) Following this task, an extension activity could be for the teacher to choose a group for each category (physical activity, sport and exercise) to run their session with the whole class. This will provide students with participation in a wider range of activities.

7 Draw up three tables, each with six rows and two columns.

- (a) Label the three tables 'Physical activity', 'Sport' and 'Exercise'.
- (b) Label the columns 'Equipment' and 'How it could be used'.
- (c) Make a visit to the PE store room at your school. Identify equipment that could be used for physical activity, sport and exercise, and outline how it could be used. An example is provided below.

		PHYSICAL ACTIVITY
Equipment		How it could be used
Skipping ropes		Skipping ropes available for use at lunchtime
(a) Make a list of the	physical activity, exercise	se and sport in which you have participated over the last three to
five days.		
five days. (b) Put these activitie	s into three categories - pl	physical activity, exercise and sport.
five days.(b) Put these activitie(c) Create a table wit participation that i environmental and	s into three categories — pl h three columns (an exampl influenced your activity over d explain how this factor influ	physical activity, exercise and sport. ple is provided for you below). Think of the enablers and barriers to er this period. Identify each factor, indicate whether it is sociocultural or ifluenced your behaviour.