



**unit 2 - Healthy
Active Lifestyles**

Introduction

A healthy lifestyle is important as it helps you to have a good life. Doing exercise and eating a healthy diet will help you live longer. Healthy eating and exercise help prevent diseases and illnesses, like cancer, obesity, and heart disease. A healthy diet can also make you feel and look better.

In this unit, we will look at food and diet. We will look at the different ways diet can affect our health, and how we can improve our diet and lifestyle. This unit will help you understand how to stay healthy and what different foods are good for. You will also know how these foods help your body and your sports performance.

In this unit, you will understand the way in which your body systems work together to allow sports participation. You will look at how this system helps sports performance. The muscles and skeleton let you move around and support our bodies. The cardiovascular and respiratory systems work together to deliver oxygen and nutrients. This lets movement happen. These systems help you to participate in physical education and sport. These systems can also be trained to improve your performance.

Areas of focus

- Macronutrients
- Micronutrients
- Function and sources of nutrients
- Healthy balanced diet



Learning outcomes

- PHE.3.1.01.015 Explains energy balance in relation to weight loss and weight gain and explains the role of each of the macronutrients in relation to health
- PHE.3.1.03.015 Analyses the benefits of PA on general health and sports performance
- PHE.3.1.04.012 Explains the specific methods of training used to improve multiple components of fitness (speed, strength, power, aerobic endurance)
- PHE.3.1.04.013 Participates in and understands the purpose of health- and skill-related fitness tests; analyses scores compared to standardised, normative data and identifies strengths and areas for improvement
- PHE.3.1.05.013 Designs, implements and leads a sport-specific warm-up and cool-down routine, including progressions and regressions to allow for differentiation
- PHE.3.1.07.003 Develops knowledge of the structure and function of bodily systems (cardio-respiratory, muscular system, skeletal system) and how it impacts on health, fitness and performance in physical activity and sport
- PHE.5.1.01.013 Analyses how physical activities or sports could meet personal enjoyment needs
- PHE.5.1.03.026 Develops an action plan to achieve short-, medium- and long-term SMART targets to improve health and well-being and sports performance based on an analysis of self and skills

Keywords

Term	Form	Definition
alveoli	noun	air sacs in the lungs
appendicular skeleton	noun	the skeleton including the limbs
arteries	noun	blood vessels which carry oxygenated blood away from the heart
axial skeleton	noun	the head, trunk and vertebrae
bronchioles	noun	the passages in the respiratory system that begin at the end of the bronchi
capillaries	noun	the smallest blood vessels (surround the muscles and body tissues)
pulmonary	noun	something to do with the lungs
veins	noun	blood vessels that carry deoxygenated blood to the heart
healthy	adjective	physically and emotionally well
obesity	noun	overweight
lifestyle	noun	how a person lives their life
habit	noun	something a person does a lot (sometimes without knowing it)

Health and sports performance are dependent on your body getting enough energy. Eating the right foods and making sure you are always well hydrated is very important.

Activity 1



Look at the macronutrients and the micronutrients below. Match the key macronutrients and micronutrients with their functions.

Carbohydrates	Normal cell function, growth and development
Protein	Important parts of skeletal structures, such as bones and teeth
Fats	Primary source of energy
Vitamins	Secondary source of energy
Minerals	Growth and repair



Eat lots of carbohydrates after you have done a lot of physical activity. This will help build your energy levels back up.

Activity 2



Give two examples of the type of foods from which you can get each of the nutrients.

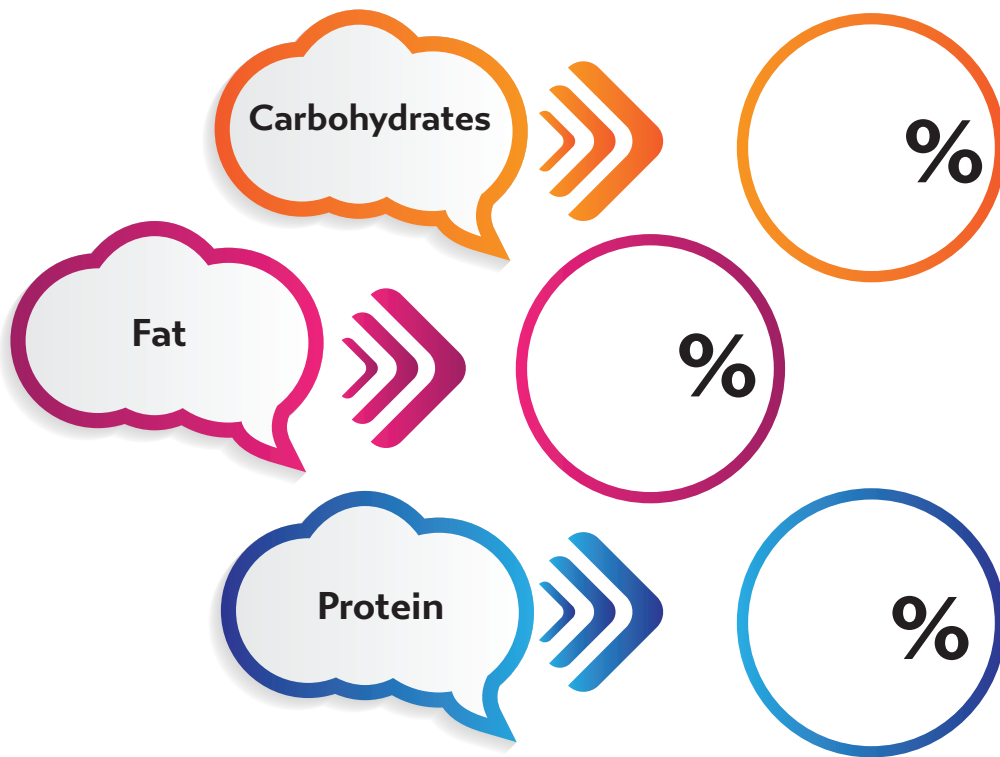
Nutrient	Foods
Carbohydrates	
Protein	
Fats	
Vitamins	
Minerals	



Eating a mix of five fruits and vegetables each day is good for you. The nutrients in these foods are important for healthy bodily functions.

Activity 3

What percentage of a healthy balanced diet should each macronutrient be?
Add the percentages to the boxes below.



If you are dehydrated, you will not perform at your best. Drink lots of water to stay hydrated.

See Elite Extension Activity E1

Skeletal system

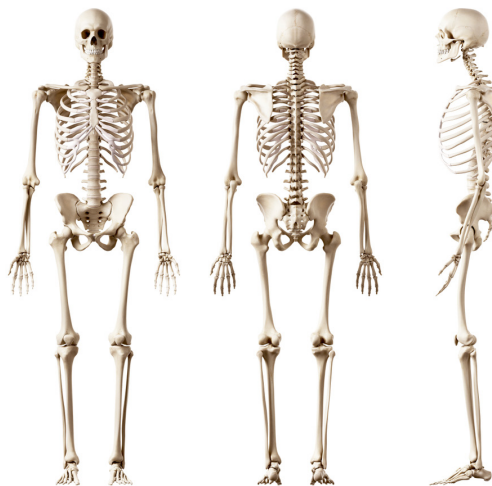
There are 206 bones in the human skeleton. These bones protect, shape, support and move our bodies. The **axial** and **appendicular** skeleton make up the human body.

Activity 4

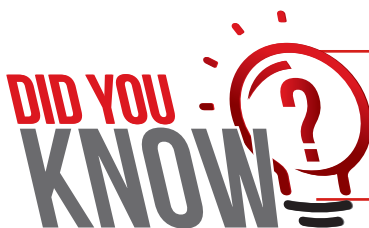


Can you identify the bones of the body? Draw a line from the name of the bone to the actual bone on the skeleton. What classification of bone is it? Write your answer in the box under it.

FEMUR	PATELLA



SCAPULA	VERTEBRAE	CARPALS



There are five different classifications of bone in the human body. They are the long, short, flat, irregular and sesamoid bones.

Muscular system

Activity 5



Label some of the main muscles in the body. What action is the muscle responsible for? Complete the sentences below with your answers.

Biceps brachii _____ the elbow joint.	Triceps brachii _____ the elbow joint.
Deltoids _____ the arm at the shoulder joint.	Abdominals _____ the spine.



Quadriceps _____ the knee joint.	
Gastrocnemius _____ the ankle joint.	Hamstrings _____ the knee joint.

See Elite Extension Activity E1



Eat lots of food that are high in protein, such as fish, chicken and beef. Eating 2 g of protein per kilogram of body weight will help build muscle.

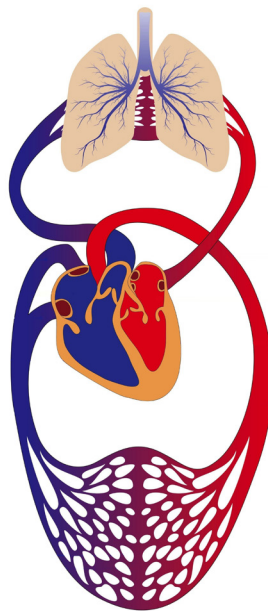
Cardiorespiratory system

Activity 6



Use the words below to help you label the main parts of the cardiorespiratory system and explain the function.

Arteries	
Veins	
Trachea	



Lungs	
Capillaries	
Heart	

Elite extension activities

There are three different types of muscle tissue in the body.

Activity E1



Name the three types of muscle found in the human body. Describe the function of each one.

