



Level 3 Health and Social Care: Principles and Contexts

Guidance For Teaching
Unit 7

UNIT 7 (Extended Diploma Only): ANATOMY AND PHYSIOLOGY FOR HEALTH AND SOCIAL CARE

Introduction:

The principal aim of this unit guide is to support teaching and learning and act as a companion to the Specification. Each unit guide offers a detailed explanation of key points in the Specification and aims to explain complex areas of subject content.

Programme of study:

The activities provided here are suggestions only for developing learner knowledge. Each centre must decide whether the activities are appropriate for their learners, and it is acknowledged that local conditions may determine the approach adopted. Although some of the suggested activities may involve sector engagement, please note that the majority of the activities are designed to take place within the classroom. Learners develop knowledge and understanding through the experience they acquire while carrying out each activity. Formative feedback is crucial to the learning, to ensure that the learner is developing the knowledge and skills necessary to achieve the best possible grades. Examples of activities have been given in this guidance that provide plenty of opportunity for formative feedback.

Overview of content:

To work effectively in the sectors, health and social care workers need to understand the anatomy and physiology of the human body. An understanding of how physiological systems work under normal circumstances is fundamental to maintaining good health. This understanding is also crucial to enable appropriate treatment of individuals when injury, disease or conditions occur. It is also important to understand external factors that may impact on the body, and their physiological effects.

Assessment:

This unit is assessed through a **2 hour** external examination (either taken on screen or as a written paper), available in the January or June series. The examination comprises of a range of question types to assess all unit content related to anatomy and physiology for health and social care.

All questions are compulsory.

**An example of programme of study for:
Unit 7: Anatomy and Physiology for Health and Social Care**

Topic Area	Activities	Resources	Homework
7.1 Cellular structure and function	<p>Introduction to the unit content and assessment methods Discuss exam techniques and exam requirements Teacher to discuss various methods for revision for exams.</p>	<p>SAMS https://www.healthandcarelearning.wales/qualifications/health-and-social-care-principles-and-contexts-teaching-from-2024/ Revision : https://www.wjec.co.uk/articles/9-top-tips-to-help-you-get-revising/ Retrieval practices : https://www.retrievalpractice.org/retrievalpractice</p>	<p>Learners to consider which revision method is best suited for them.</p>
	<p>Learners should know and understand the main structure and function of human cells, tissues, organs and organ systems.</p> <p>Learners to research in pairs the following human cellular structure: cell membrane, nucleus, nuclear envelope, nucleolus, rough and smooth endoplasmic reticulum, Golgi apparatus, mitochondria, cytoplasm, lysosomes. Teacher to encourage learners to research function and structures. Learners to produce information in tables/PowerPoint/Prezi/Sway.</p> <p>Teacher led discussion and lesson on movement into and out of cells. Discussion to include simple diffusion, osmosis, facilitated diffusion, active transport and endo/exocytosis. Learners to produce A4 posters on the movement process following session. Teacher to discuss how this process helps in human body form.</p>	<p>https://www.biologyonline.com/tutorials/cell-structure https://studymind.co.uk/notes/diffusion/ https://www.futurelearn.com/info/courses/teaching-biology-inspiring-students-with-plants-in-science/0/steps/58750 https://d3kp6tphcrvm0s.cloudfront.net/el21-22_1-8/0/0 https://hwb.gov.wales/playlists/view/f02113f1-3eec-45a5-9e93-c800bde8c5f0/en/?options=T824h5EVsCk8ekmpVUSAxDDb5o7Xx%252F65ZW0cejvim8%252FqLNU4LKQtsmRZ8gegReEkwSbN4isPrOLbIfvQsFa3Dw%253D%253D</p>	<p>Learners to produce a true false quiz sheet on human cellular structure.</p> <p>Learners to produce definition sheet A4 on the terms and their functions.</p>

	<p>Learners to research the main types of cells in the human body. Stem, bone, blood, adipose, skin, nerve, endothelial, sex and pancreatic. Produce a presentation in PowerPoint / prezi / sway format. Learners to discuss the composition of the main types of cells and produce an infographic or information sheet on the cell types.</p> <p>Teacher led discussion on the organisation of cells into tissues including explanation of epithelial tissue, connective tissue, muscle tissue and nervous tissue.</p> <p>Teacher to lead discussion on how tissues are organised into organs and then organs in the physiological system. This will also introduce learning outcome 7.2</p>	<p>https://www.thoughtco.com/types-of-cells-in-the-body-373388</p>	
--	---	--	--

Topic Area	Activities	Resources	Homework
<p>7.2 Structure and function of human physiological systems</p>	<p>Learners should know and understand the main structure and function of the systems and organs within the body.</p> <p>The human body has several physiological systems, of these systems there are primary organs that require the system to function correctly and efficiently. Several systems interrelate with each other and support their main function. EG the cardiovascular system's main function is for the heart to pump blood around the body. However, the CV system pumps blood into the respiratory system (lungs) which allows for blood distribution around the body.</p> <p>Students are expected to be able to identify and understand the functions of the systems and their primary organs.</p> <p>To include: Learners to independently research the systems of the body and complete a table on the composition to include: function, organs involved, location of systems, purpose.</p> <p>Learners will need to discuss the following systems: Endocrine, nervous, musculoskeletal, digestive, cardiovascular, respiratory, lymphatic, integumentary, immune, renal and reproductive.</p> <p>Once learners have researched the systems independently, in pairs or small groups learners can research one body system and produce a presentation on this system.</p>	<p>Circulatory: http://cefnogaeth.gwegogledd.cymru/y-system-cylchrediad-dynol/?lang=en</p> <p>https://d3kp6tphcrvm0s.cloudfront.net/el21-22_1-11</p> <p>Respiratory: http://cefnogaeth.gwegogledd.cymru/resbiradaeth-ar-system-resbiradol-mewn-bodau-dynol/?lang=en</p> <p>https://d3kp6tphcrvm0s.cloudfront.net/el21-22_1-9</p> <p>Digestive system: https://d3kp6tphcrvm0s.cloudfront.net/el21-22_1-10</p> <p>Cardiovascular: Cardiovascular System YouTube</p> <p>Immune: https://www.youtube.com/watch?v=PSRJfaAYkW4</p> <p>https://www.stem.org.uk/resources/elibrary/resource/35694/immune-system</p> <p>Lymphatic system: https://www.youtube.com/watch?v=I7orwMgTQ5I</p>	<p>Learners to produce a PowerPoint presentation on the systems outlining, function, organs and interdependency.</p>

	<p>Learners to present and following the presentations / conference evaluate and compare the systems.</p> <p>Teacher led discussion on the functions of the major organs within the systems assessing learner knowledge on their function and which system the organ belongs to.</p>	<p>Renal: https://thescienceteacher.co.uk/kidneys-and-osmoregulation/</p> <p>Reproductive: https://www.stem.org.uk/resources/elibrary/resource/460884/sexual-reproduction-humans</p> <p>Endocrine: https://www.stem.org.uk/resources/elibrary/resource/25342/hormones-and-their-effects</p> <p>Musculoskeletal: https://www.futurelearn.com/info/courses/musculoskeletal/0/steps/25139</p> <p>Nervous: https://www.bna.org.uk/resources/neuroscientists-in-schools/#secondary-nervous-system</p>	
--	--	---	--

Topic Area	Activities	Resources	Homework
<p>7.3 How lifestyle factors and choices can impact on human physiology</p>	<p>Learners should know and understand how lifestyle factors and choices can impact on human physiology (both positive / negative impacts) such as:</p> <ul style="list-style-type: none"> • Smoking / Vape products • Use of technology • Substance misuse • Physical activity • Nutrition and hydration • Stress, anxiety and depression • Sexual health. <p>Learners to independently research the lifestyle factors and complete a chart defining the factors, positive factors, negative factors and key words associated with each factor.</p> <p>Teacher to invite guest speaker / keyworker to discuss factors and how the factor coils impact physiological health.</p> <p>Learners in pairs to choose a lifestyle factor and create an infographic defining the factor and outlining how it can impact the body physiologically.</p>	<p>Smoking: https://www.nhs.uk/common-health-questions/lifestyle/what-are-the-health-risks-of-smoking/</p> <p>Vaping: https://www.nhs.uk/better-health/quit-smoking/vaping-to-quit-smoking/</p> <p>Substance misuse: https://www.priorygroup.com/blog/understanding-the-effects-of-substance-misuse</p> <p>Physical activity: https://www.nhs.uk/live-well/exercise/exercise-health-benefits/</p> <p>Nutrition and Hydration: https://www.nhs.uk/live-well/eat-well/how-to-eat-a-balanced-diet/eating-a-balanced-diet/</p> <p>Stress, Anxiety and depression: https://www.bhf.org.uk/informationsupport/risk-factors/stress</p> <p>Sexual health: https://sexualhealth.cht.nhs.uk/for-professionals/phse-sexual-health-resources</p>	<p>Learners to use an online platform to create a quiz on lifestyle factors (eg: Quizzizz, Quizlet or Kahoot).</p>

Topic Area	Activities	Resources	Homework
<p>7.4 Monitoring health and well-being</p>	<p>Learners should know and understand the ways in which individuals can monitor their own health and well-being.</p> <p>For example:</p> <ul style="list-style-type: none"> • taking physical measurements • testing specimens • Screening programmes • Vaccination programmes • personal health monitors and devices • Apps and mobile phone technology. <p>Learners in groups to research the various methods for monitoring health and conduct a group discussion on the positive and negative effects of these methods on individuals.</p> <p>Teacher to lead practical session on conducting physical measurement tests (with consent). Learners can choose from: Height, weight, blood pressure, temperature, peak flow, heart rate, pulse oximeters.</p> <p>Teacher led session with guest speaker on the immunisation and vaccination programmes available to individuals in Wales. Learners to consider questions to ask the available guest speaker (Health visitor, community midwife).</p>	<p>Screening for Life website: https://phw.nhs.wales/services-and-teams/screening/</p> <p>Vaccination Wales: https://phw.nhs.wales/topics/immunisation-and-vaccines/</p> <p>Blood tests: https://www.nhs.uk/conditions/blood-tests/types/</p> <p>Urine tests: https://www.kidney.org/atoz/content/what-urinalysis</p>	<p>Learner to produce succinct four-sided A4 short revision notes on topic covered during the week.</p>