# Health and Movement Science 11–12 (2023): Sample unit (Stage 6 Year 11)

Sample units are provided by NESA to illustrate teaching, learning and assessment of syllabus outcomes and content. Teachers should seek advice from their schools and sectors about local requirements for units of work, including opportunities for reflection and evaluation, and recording evidence of adjustments to meet the needs of individual students with disability.

#### **Unit title:** Improving Health Depth Study

Duration**:**10 hours

Description: This Depth Study deepens students understanding of how young people can improve their health, from exploring common issues affecting young people to implementing protective factors and support. The study explores content from the focus areas of Health for Individuals and Communities, and The Body and Mind in Motion. This unit covers the meanings of health, the dynamic nature of health, epidemiology, determinants, the health status of young people, health issues for young people, the FITT principle, movement skills, and the relationship between psychology, movement and performance. The 5 propositions that underpin the syllabus have been embedded in the design of this depth study.

| Outcomes | Subject-specific information |
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| **HM-11-01** interprets meanings, measures and patterns of health experienced by Australians  **HM-11-02** analyses methods and resources to improve and advocate for the health of young Australians  **HM-11-04** investigates movement skills and psychology to improve participation and performance  **HM-11-06** Analysis: analyses the relationships and implications of health and movement concepts  **HM-11-07** Communication: communicates health and movement concepts to audiences and contexts, using a variety of modes  **HM-11-08** Creative thinking: generates new ideas that are meaningful and relevant to health and movement contexts  **HM-11-09** Problem-solving: proposes and evaluates solutions to health and movement issues  **HM-11-10** Research:analyses a range of sources to make conclusions about health and movement concepts | This Depth Study partially fulfills the syllabus requirement for a minimum of 2 depth studies.  This Depth Study shows how the focus areas of Health for Individuals and Communities, and The Body and Mind in Motion can be integrated where a case study drives the focus.  This Depth Study takes a solution-focused approach as students work through a problem to identify the factors that affect it, and the potential solutions to the problem. This approach provides opportunities for students to consolidate their knowledge, understanding and skills and to develop a deeper understanding of course content. |

**Unit information**

| Content |
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| How do we understand and measure Australia’s health? Compare meanings of health, using various sources including the World Health Organization’s (WHO) definition, and explain why people give different meanings to health.  Explain the dynamic nature of health by exploring the interactions between the dimensions of health, the concept of good health, the health continuum, how health changes over time, and how an individual’s circumstances affect their health.  Discuss the use of epidemiology, mortality, infant mortality, morbidity, incidence and prevalence to explain the health status of Australians, using tables and graphs from *Australia’s Health* and other health reports.  Discuss the range of determinants (broad features of society, environmental factors, socioeconomic characteristics, health behaviours and biomedical factors), that influence the health and wellbeing of Australians.  How do the determinants interact to affect the health of population groups?  What are the sociological causes of risky health behaviours?  Where do inequities exist and what can we do about them? What key issues affect the health of young people and how can they protect and promote good health? Examine the health status of young people, including Aboriginal and Torres Strait Islander young people, using *Australia’s Health* and other health reports, graphs and tables.  What are the trends in key health issues?  What are the causes and protective factors of key health issues?  How do the determinants of health affect health-related behaviours?  Research **ONE** health-related issue for young people.  What is the nature of the issue?  What does the data tell us?  Why is this an issue?  What are the protective factors to prevent the issue?  What strategies are currently in place to improve the health of young people?  What new strategies would be most effective to improve young people’s health?  What further research questions could be explored to build understanding and advocacy? What factors influence movement and performance? Design an aerobic or anaerobic training program based on the FITT principle. How are movement skills acquired, developed and improved? Apply an understanding of how movement skills are acquired, developed and improved for recreational and elite athletes.   * characteristics of learners * stages of learning/skill acquisition * characteristics of motor skills, including gross and fine, continuous, discrete and serial, open and closed, self-paced and externally paced * practice methods for the different stages of learning, including massed, distributed, whole, part, blocked and random * types of feedback for different stages of learning, including task-intrinsic, augmented, concurrent, delayed, knowledge of results, knowledge of performance. |

*Sample units of work provide examples of teaching, learning and assessment activities for teachers to adapt to meet their school contexts and student needs. A range of opportunities for ongoing assessment are provided to support flexible monitoring of student learning.*

| Suggested teaching, learning and assessment | Suggested resources |
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| Approach to this Depth Study This Depth Study uses an open-ended question approach. With their teachers, students will explore the overall case study, breaking it down into smaller questions students can answer using the syllabus as a guide. This is a Depth Study, therefore not all content within each content point needs to be addressed. However, some content may be explored in greater depth through direct teacher instruction.  Students may complete this Depth Study independently or in small groups, or both in combination throughout the Depth Study. Lesson commencement At the start of each learning sequence students are provided with the content from the syllabus that they will explore in relation to the case study. This provides a framework for the development of a question. For example, when starting the lesson on the epidemiological data, students might brainstorm the question ‘Is Pat’s situation common among young people?’ Criteria for the task Throughout this Depth Study students will have opportunities to engage in peer and self assessment. Students and teachers should co-develop assessment criteria for the task for each question at the beginning of the lesson. This will allow for peer assessment or self-assessment to be used throughout the Depth Study. Final product This Depth Study is not formally assessed. Therefore it provides an opportunity for the final product to be negotiated between teachers and students. Regardless, this should be negotiated early in the Depth Study so that students can be developing their final product as they progress through the Depth Study. Throughout the Depth Study, teachers should provide guidance for students as to how to best represent their learning in the development of their final product.  Assessment criteria will be developed throughout the Depth Study for this product to allow students to assess the final product of their peers. |  |
| Introduction Students are presented with the following case study:  “Pat, 15-year-old, loves basketball but has never played competitively or been coached in the sport.  Pat lives in a large regional centre (medium-sized city) and comes from a middle-income, two-parent household. Pat has recently been diagnosed with anxiety and has a medical history of being overweight.  Pat’s self-confidence is low but their school reports state that they are a strong collaborator, they are a keen learner (particularly about basketball) and they respond well to feedback.  Pat has expressed to their parents that they are unhappy about their current situation, and they would like to improve their health. Pat’s parents have agreed to support this, but they are not sure how.  Pat’s parents have employed you, as a health consultant, to develop a plan to support Pat’s health. They would like this to be research-based and reflective of health as holistic.”  Students participate in a guided discussion about what they may need to understand in order to support Pat. Questions may include:  What is health?  How can health be measured/determined?  What are Pat’s main health concerns?  What things need to be addressed to try and improve Pat’s health?  What plan can you put in place to help improve Pat’s health?  Students may identify and explore relevant sections in the *Health and Movement Science Syllabus 11–12* throughout this Depth Study. Final product introduction The final product should be a summary of the students findings from the Depth Study. The final product can be presented in any format or a combination of formats. Examples of final products for this Depth Study may include:  video  report  PowerPoint/presentation  poster  speech  essay.  Students discuss their chosen product with their peers and give the reasons for their selection. Students receive peer feedback on what might lead to a good presentation in their chosen method of presenting. |  |
| Question development Students brainstorm the question they need to answer in relation to the content for this learning sequence. Students may need to be reminded of the problem to ensure they identify specific question(s). Question(s) for this lesson could include:  How would Pat rate their current health status? What factors may lead to their health status changing?  What is the definition of health and how is it reflected in young people?  Once the question has been developed, teachers and students co-develop assessment criteria for the task to use at the end of the learning sequence. If students are using different questions, assessment criteria should be developed for each question.  Students are guided through a range of resources to develop an understanding of health and how health means different things to different people. (This may also be a revision activity.)  Students engage in a debate/discussion on the question ‘Does the WHO definition of health effectively define health in the 21st century?’  Teachers and students co-develop a mind map on the components of health that may have a negative impact on Pat’s health. The mind map could cover:  identifying the components of health  definitions of each component of health  examples of each component of health.  Students brainstorm the elements that contribute to the dynamic nature of health. Concepts may include:  interactions between the dimensions of health  the concept of good health  the health continuum  how health changes over time  how an individual’s circumstances affect their health.  Teachers lead discussion around components are currently affecting Pat’s journey towards positive health and factors that may lead to Pat’s health changing. Students may highlight or emphasise the components they have brainstormed that are most relevant to Pat. Steps towards final product Students develop a definition of health to present to Pat and Pat’s parents. This definition should be added to the students’ final product. Students can choose the format to record information and how it is presented to Pat’s parents.  Teachers lead discussion about what students discovered in relation to Pat’s definition of health and elements that contribute to the dynamic nature of health. Students should be provided with time to self-assess. | Australian Institute of Health and Welfare <https://www.aihw.gov.au/reports/australias-health/what-is-health> |
| Question development Students brainstorm the question they need to answer in relation to the content for this learning sequence. Students may need to be reminded of the problem to ensure they identify specific question(s). Question(s) for this lesson could include:  Is Pat’s situation common among young people?  Once the question has been developed, teachers and students co-develop assessment criteria for the task to use at the end of the learning sequence. If students are using different questions, task assessment criteria will need to be developed for each one.  Students research the health status of young Australians and draw correlations between the data they find and Pat’s situation. Students should be encouraged to look beyond Australia’s health and explore data on the determinants of health also. Where required, students could be guided through interpretation of specific selected graphs and then supported to link this back to Pat.  Students create or complete a table summarising the data that is relevant to Pat’s health status:   |  |  |  |  | | --- | --- | --- | --- | | **Key health issue** | **Image of graph/table** | **Summary of information in graph/table** | **Link to Pat** | |  |  |  |  | |  |  |  |  |   Students select one or more of the health issues impacting Pat identified in the table above and research the causes and protective factors for their allocated health issue. Once they have identified the causes and protective factors, students share with a partner and discuss each other’s causes and protective factors, adapting any that are relevant to their own health issue. Students add causes and protective factors into the table they have already developed/completed:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Key health issue** | **Image of graph/table** | **Summary of information in graph/table** | **Link to Pat** | **Causes** | **Protective factors** | |  |  |  |  |  |  |  Steps towards final product Students develop and present a summary of the key trends in epidemiological data and how they apply to Pat. This information can also be presented to show how this may offer opportunities for supporting Pat. This should be added to their final product.  Students share their working with their peers and discuss similarities and differences between what they discovered. Students update their own summaries after the discussion with their peers. | * Australian Institute of Health and Welfare <https://www.aihw.gov.au/reports/children-youth/health-of-young-people> * Beyond Blue <https://www.beyondblue.org.au/who-does-it-affect/young-people> * Black Dog Institute <https://www.blackdoginstitute.org.au/research-areas/youth-mental-health/> * Cancer Australia <https://ncci.canceraustralia.gov.au/prevention/overweight-and-obesity/overweight-and-obesity-children-and-young-people> * World Health Organization <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response> * Beyond Blue <https://www.beyondblue.org.au/who-does-it-affect/aboriginal-and-torres-strait-islander-people/risk-factors> * Government of Western Australia <https://www.mhc.wa.gov.au/your-health-and-wellbeing/about-mental-health-issues/> |
| Question development Students brainstorm the question they need to answer in relation to the content for this learning sequence. Students may need to be reminded of the problem to ensure they identify specific question(s). Question(s) for this lesson may include:   * How are determinants influencing Pat’s health? * What are those determinants?   Once the question has been developed, teachers and students co-develop assessment criteria for the task to use at the end of the learning sequence. If students are using different questions, assessment criteria will need to be developed for each question.  Teachers develop a cloze passage on the determinants of health. This cloze passage develops students’ understanding of key vocabulary in context. The cloze passage should cover:  definitions of each determinant  examples for each determinant.  Once students have clarified their understanding of the determinants, they brainstorm the determinants that are influencing Pat’s health. Students complete the table to help unpack the possible impacts of the determinants.   |  |  |  | | --- | --- | --- | | **Determinant** | **Pat’s specific example** | **Impact on Pat’s health** | |  |  |  |   Students brainstorm what other questions they would like to ask Pat and Pat’s parents to determine the influence of various determinants. Students justify why they would like to know this information.  Students research and develop ideas about how the COVID-19 pandemic may have had an impact on Pat’s health. Students answer the question ‘Describe how the COVID-19 pandemic may have affected Pat’s health.’ Steps towards final product Students develop a summary of the determinants’ influence on Pat’s health. This information can also be presented to show how these may provide opportunities to support Pat. This should be added to their final product.  The class creates a continuum of the determinants they have recognised as influencing Pat’s health and identify any opportunities for supporting Pat’s health related to the determinants. Students can review and update their own summary based on class feedback. | * Australian Institute of Health and Welfare <https://www.aihw.gov.au/reports/australias-health/social-determinants-of-health> * Australian Institute of Health and Welfare https://www.aihw.gov.au/reports/australias-health/australias-health-2022-data-insights/summary * UNICEF <https://www.unicef.org/press-releases/impact-covid-19-poor-mental-health-children-and-young-people-tip-iceberg> * UNICEF <https://www.unicef.org/reports/state-worlds-children-2021?utm_source=referral&utm_medium=media&utm_campaign=sowc-web> * sticky notes and whiteboard to create the continuum. |
| Question development Students brainstorm key questions they need to answer in relation to the content for this learning sequence. Question(s) for this lesson could include:  What are the major health issues affecting Pat?  How can we support Pat in addressing these major health issues?  Once the question has been developed, teachers and students co-develop assessment criteria for the task to use at the end of the learning sequence. If students are using different questions, task assessment criteria will need to be developed for each one.  Students brainstorm and identify the major health issues that are impacting Pat. Students then choose one of the health issues and research the health issue in relation to young people and Pat. Research should address the following questions:  What is the nature of the issue?  What does the data tell us?  Why is this an issue?  What are the protective factors to prevent the issue?  What strategies are currently in place to improve the health of young people?  What new strategies would be most effective to improve young people’s health?  What further research questions could be explored to build understanding and advocacy? Steps towards final activity Based on analysis of the data, conditions and determinants, students should develop an initial set of recommendations to support Pat. What suggestions do they have for improving Pat’s health? |  |
| Question development Students brainstorm the question they need to answer in relation to the content for this learning sequence. Question(s) for this lesson could include:   * What can Pat do to improve their overall fitness? * What training is most appropriate for Pat to be able to participate in basketball?   Note: It is important that students follow the intent of the syllabus and explore training for improved performance. Once the question has been developed, teachers and students co-develop assessment criteria for the task to use at the end of the learning sequence. If students are using different questions, task assessment criteria will need to be developed for each one. Activity 1 Students complete a quiz on aerobic and anaerobic training terms and the FITT principle. If students have not covered this content before, more in-depth knowledge development may be required.  Students research the aerobic and anaerobic requirements of basketball and what types of training can be used to meet them, with a focus on Pat’s needs.  Students design an aerobic or anaerobic training program based on the FITT principle. Students research how to meet Pat’s needs within the design of the program.  Students could also consider the Physical activity and exercise guidelines for all Australians when designing their program.  Students pair up with a partner who designed the opposite program and discuss what they included and why. Steps towards final activity Students design a 7 day training program for Pat that is reflective of Pat’s current level of fitness and their desire to participate in basketball. The program should be incorporate the FITT principle.  Students are provided with peer feedback on their program. Students apply the feedback to finalise their program. Final product criteria As students progress through the Depth Study, they develop a clearer understanding of the approach and how to develop assessment criteria for the task. Teachers and students should co-develop assessment criteria for the task to provide peer feedback to the final products at the end of the Depth Study. Things to consider include:   * The final product should be a summary of the work they have generated throughout the Depth Study. * Students may use a broad range of methods to present their work. |  |
| Question development Students brainstorm the question they need to answer in relation to the content for this lesson/ sequence. Question(s) for this lesson could include:   * How can Pat develop their basketball skills? * What approaches can Pat take to their practice to improve their basketball skills? * How are movement skills acquired, developed and improved in basketball?   Once the question has been developed, teachers and students co-develop assessment criteria for the task to use at the end of the learning sequence. If students are using different questions, task assessment criteria will need to be developed for each one.  Teacher leadd a brainstorming discussion about the characteristics of a learner. Response could include:   * heredity * personality * confidence * prior experience * ability.   Students complete a ‘Think-pair-share’ routine about how each of these characteristics might be relevant to basketball and how this might relate to Pat.  Students complete research to define the key related terms. Using their research students complete the table below.   |  |  |  | | --- | --- | --- | | **Term** | **Definition** | **Basketball example/scenario (if applicable)** | | **Stages of learning/skill acquisition** | | | | Cognitive |  |  | | Associative |  |  | | Autonomous |  |  | | **Characteristics of motor skills** | | | | Gross |  |  | | Fine |  |  | | Continuous |  |  | | Discrete |  |  | | Serial |  |  | | Open |  |  | | Closed |  |  | | Self-paced |  |  | | Externally paced |  |  | | **Practice methods** | | | | Massed |  |  | | Distributed |  |  | | Whole |  |  | | Part |  |  | | Blocked |  |  | | Random |  |  | | **Types of feedback** | | | | Intrinsic |  |  | | Augmented |  |  | | Concurrent |  |  | | Delayed |  |  | | Knowledge of results |  |  | | Knowledge of performance |  |  |   Students and teachers discuss the main skills required to participate in basketball and create a list.  Teachers develop a presentation on the characteristics of each stage of skill acquisition. The presentation should include:   * all 3 stages of skill acquisition * the characteristics of each stage * an example unpacked across the 3 stages (selecting an example that is relevant to the class context may support students to develop their understanding).   Based on this, students discuss how they would identify what stage of skill acquisition someone was at based on a selected skill from the list the teacher just developed.  Students participate in a practical activity to explore what is appropriate at the different stages of skill acquisition. This will involve students selecting one basketball skill and running through different types of practice methods and feedback.  Teachers develop a worksheet for students to complete throughout the practical activity that includes:   * identification of what stage of skill acquisition each member of the group is at, a justification of the reason for identification of the stage should be included. * examples of practice methods tried and where they were most valuable. * types of feedback used and where they were most valuable.  Final product criteria Students design a skill-based training program for Pat. This should be designed for a situation where drills and activities can be practised. Students could consider:   * number of sessions and time spent * practice methods * feedback * Pat’s stage of skill acquisition * key skills required in basketball. | * Harvard Graduate School of Education <https://pz.harvard.edu/resources/think-pair-share> |
| Students are provided time to complete their final product. They should be reminded that this is a summary of what they have researched and created throughout this Depth Study, not a repetition of it. Remind students to address the task criteria that were developed by the class earlier in the Depth Study.  Once students have finalised their products, they walk around to view others’ products or present their own. Students provide feedback using the task assessment criteria. Teachers may also choose to complete the assessment criteria at this time.  Students reflect on their assessment criteria and discuss with their peers what they would change or do the same next time. |  |

| Reflection and evaluation (space for teacher to reflect on and evaluate the unit) |
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