



HSC HMS

Student Workbook

Student name: _____



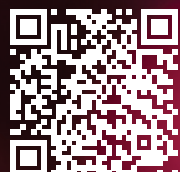


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LOVE THESE SUBJECTS? SEE WHERE THEY CAN TAKE YOU! FIND YOUR PATH FROM HSC TO UNIVERSITY.

YOU LOVE ENGLISH? *WHY NOT STUDY:*

- B Communication
- B Screen Media (Arts and Production)
- B Education (Primary)
- B Education (Secondary)
- B Arts
- B Arts (Interpreting and Translation)
- B Laws
- B Performing Arts (Acting)
- B Music
- B Design (Visual Communication)
- B Music
- B International Studies

YOU LOVE STUDIES OF RELIGION? *WHY NOT STUDY:*

- B Arts
- B Social Science
- B Education (Primary)
- B Education (Secondary)

YOU LOVE HISTORY? *WHY NOT STUDY:*

- B Arts
- B International Studies
- B Social Science
- B Education (Primary)
- B Education (Secondary)
- B Tourism and Event Management
- B Planning (Pathway to M Urban Management and Planning)

YOU LOVE VISUAL ARTS? *WHY NOT STUDY:*

- B Architectural Design
- B of Design
- B of Design and Technology
- B of Industrial Design (Honours)

YOU LOVE BUSINESS STUDIES? *WHY NOT STUDY:*

- B Business
- B Accounting
- B Education (Primary)
- B Education (Secondary)
- B Tourism and Event Management
- B Construction Management (Honours)

YOU LOVE LEGAL STUDIES? *WHY NOT STUDY:*

- B Criminology
- B Criminal and Community Justice
- B Cyber Security and Behaviour
- B Policing
- B Laws
- B Social Science
- B Humanitarian and Development Studies
- B Education (Primary)
- B Education (Secondary)
- B Construction Management (Honours)
- B Social Work
- B Youth Work

YOU LOVE COMMUNITY AND FAMILY STUDIES STUDIES? *WHY NOT STUDY:*

- B Arts
- B Criminology
- B Nursing
- B Midwifery
- B Psychology (Honours)
- B Psychological and Social Sciences
- B Social Science
- B Youth Work
- B Social Work
- B Humanitarian and Development Studies
- B Education (Early Childhood)
- B Education (Primary)
- B Education (Secondary)

YOU LOVE PHYSICS? *WHY NOT STUDY:*

- B Science
- B Education (Primary)
- B Education (Secondary)
- B Engineering
- B Architectural Design
- B Industrial Design (Honours)
- B Design and Technology

YOU LOVE CHEMISTRY? *WHY NOT STUDY:*

- B Science
- B Medical Science
- B Education (Primary)
- B Education (Secondary)

YOU LOVE HEALTH AND MOVEMENT SCIENCE? *WHY NOT STUDY:*

- B Health Science
- B Health, Physical Education and Sport
- B Exercise Physiology
- B Exercise Science
- B Sport and Performance Science
- B Occupational Therapy
- B Paramedicine
- B Physiotherapy
- B Podiatric Medicine
- B Speech Pathology
- B Traditional Chinese Medicine
- B Nursing
- B Midwifery
- B Education (Primary)

YOU LOVE MATHEMATICS? *WHY NOT STUDY:*

- B Computer Science
- B Data Science
- B Information and Communication Technology
- B Information Systems
- B Mathematics
- B Engineering
- B Education (Primary)
- B Education (Secondary)
- B Planning (Pathway to M Urban Management and Planning)
- B Accounting

YOU LOVE BIOLOGY? *WHY NOT STUDY:*

- B Health Science
- B Health, Physical Education and Sport
- B Occupational Therapy
- B Paramedicine
- B Physiotherapy
- B Podiatric Medicine
- B Speech Pathology
- B Sport and Performance Science
- B Traditional Chinese Medicine
- B Science
- B Medical Science
- B Nursing
- B Midwifery
- B Education (Primary)
- B Education (Secondary)
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- Programs to help you settle into uni life as well as your studies
- Student Welfare Service
- Counselling and mental health and wellbeing services
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- Members of the ADF – Student Veteran Program
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How to use this workbook

During the workshop Follow the explanations and complete activities marked LIVE. Use key phrases when asked to plan. You do not need to finish the after-workshop questions during the session.

After the workshop Choose the activities that match your gaps. Write fuller responses in the spaces provided or continue in your own notes using the activity number. Use pages 36-39 as reference material.

Use the evidence carefully Remember trends and explanations. The source codes R1-R21 link to the reading list on pages 38-39. Dated examples are for interpretation, not a requirement to memorise the latest statistics.

Workshop minutes	Focus	Pages
0-8	Orientation and course map	1-3
8-30	How healthy are Australians?	4-9
30-42	Australia's healthcare system	10-12
42-49	Technology and data	13-14
49-58	SDGs and community action	15-16
58-63	Personalised assessment and prescription	17-18
63-81	Training and performance	19-23
81-91	Individual and group sports	24-26
91-99	Sleep, nutrition and supplementation	27-29
99-108	Sustained movement and performance	30-33
108-120	Consolidation and next steps	34-39

Respond to the verb Explain: show how or why. Compare: make similarities and differences explicit. Analyse: show relationships and implications. Justify: support a choice with reasons. Evaluate/assess: make a judgement using relevant criteria.

Marks guide expected depth. They are not a rule that every sentence or named point earns one mark.

The HMS course at a glance

Two Year 12 focus areas, connected by analysis, communication, creative thinking, problem-solving and research. Use evidence, explain relationships and make supported judgements.

Health in an Australian and global context	Training for improved performance
1 How healthy are Australians?	5 How can exercise assessment and prescription be personalised?
2 How does Australia's healthcare system work towards achieving better health for all Australians?	6 How does training influence movement and performance?
3 How is the growing and changing use of technology and data impacting Australia's healthcare system?	7 How does training differ for individual and group sports?
4 What actions are needed to promote and improve the health of Australians?	8 What impact does sleep, nutrition and supplementation have on movement and performance?
	9 How do individuals train for sustained movement and performance?

Course structure Year 12 allocates 45 hours to each focus area and 30 hours to Depth Studies. Knowledge and understanding from Year 11 are assumed; the reference bridge is on page 36.

Full HSC orientation The written HSC examination is 100 marks: 20 marks of objective-response questions, 56 marks of short answers and two 12-mark extended responses, one for each focus area. It allows 3 hours working time plus 10 minutes reading. Focus areas are approximately equally weighted. This workbook is a subject review, not that examination. (NESA p39)

Two links to keep using Health: evidence → determinants → action → judgement. Movement: demands → assessment → training → adaptation → performance.

Reading health evidence

01 How healthy are Australians? | NESA pp15, 26-27

Know the difference Epidemiology examines the distribution and determinants of health in populations. A count tells you how many; a rate relates events to a population and usually a time period. Check the denominator before comparing two groups.

Read in this order Identify the population, measure, units and period. Describe a pattern with evidence; then explain possible determinants. Check whether the evidence actually supports the explanation. An association alone does not establish a cause.

Make fair comparisons Crude rates reflect the population's actual age structure. Age-standardised rates adjust for age differences, helping comparisons between populations or over time. Neither tells you the circumstances of every individual.

Measure	Meaning and what it helps you judge
Mortality / morbidity	Deaths / illness, disease or injury. Morbidity can be described through incidence, prevalence, disability and service use.
Incidence	New cases in a defined population during a specified period; useful for examining risk and prevention.
Prevalence	All existing cases at a point or over a period; useful for planning care. It can rise when people live longer with a condition.
Life expectancy / infant mortality	Expected remaining years under current mortality patterns / deaths under age one per 1,000 live births.
Disease burden	Healthy life lost through premature death and living with illness or disability; combines fatal and non-fatal impact.

Key thinking Describe the pattern before explaining it. A possible explanation must not be presented as a proven cause.

A01 LIVE • 1 minute

A hypothetical condition has fewer new cases this year, but more people living with it. Identify the two measures and give ONE possible explanation. Use key phrases.

Australia’s health: patterns that matter

01 How healthy are Australians? | NESA p26 • R1-R3

The pattern, not a statistics test NESA explicitly prioritises understanding trends over memorising the latest rates. Know the direction, the groups affected and a plausible explanation. Use figures when a question supplies them.

A balanced national picture Australians generally have high life expectancy, but national averages conceal differences between groups. Females live longer on average than males. Long-term gains have not been uniform every year: recent estimates reflect pandemic disruption.

Morbidity is more than mortality Cancer and cardiovascular disease remain substantial burdens. Mental health conditions and musculoskeletal conditions can cause considerable disability without being the leading causes of death. A mortality-only account therefore misses major needs.

Read categories carefully AIHW’s 2026 report identifies dementia as the leading single underlying cause of death in 2024. “All cancers” is a group of diseases, so do not compare a broad group with a single disease as though their categories match.

Sociological explanations Work conditions, income, education, advertising, social norms and access to safe spaces can shape risky behaviours. For example, insecure work may disrupt sleep and reduce time for food preparation. Explaining these influences is stronger than blaming a population for its choices.

Dated evidence example	Interpretation
Life expectancy, 2022-2024: males 81.1; females 85.1 years (R1)	The female average is higher. These are population estimates, not predictions of one person’s lifespan.
Cancer, mental/substance use and musculoskeletal conditions feature prominently in 2024 burden estimates (R2)	Priorities depend on disability as well as deaths; different age groups experience different patterns.

A02 AFTER WORKSHOP • HSC-style

Explain why a government should consider morbidity as well as mortality when allocating health resources. (3 marks)

Health inequities: interacting determinants

01 How healthy are Australians? | NESA pp26-27 • R1, R7

Difference or inequity? A health inequality is a measurable difference. An inequity is an unfair, avoidable difference linked to unequal opportunities or resources. Determinants interact: income can influence housing, transport, food security and access to timely care.

Aboriginal and Torres Strait Islander Peoples Examine health data alongside the continuing effects of colonisation, racism, dispossession and unequal access to culturally safe services. Avoid treating diverse peoples and communities as one experience. Culture, connection to Country, family, community leadership and self-determination are strengths.

Actions and their mechanisms Aboriginal community-controlled health organisations place local community governance at the centre of culturally informed, holistic care. Trusted services can improve engagement and continuity. Wider action on housing, education, racism and income is also needed; clinical care alone cannot remove every underlying cause.

Our additional group: socioeconomic disadvantage Lower income, insecure employment, lower educational opportunity and poorer housing can reinforce one another. Cost barriers can delay care; illness can then reduce earning capacity. The cycle explains why a single information campaign may have limited effect.

Evidence anchor See page 37 for dated population comparisons; use the pattern alongside the interacting determinants, not as a label for an individual.

Determinants interact	Health pathway	Action matched to the barrier
Insecure work + low income	Irregular hours and lost wages make appointments difficult	Affordable care with flexible hours and paid leave support
Housing stress + transport cost	Competing essentials reduce ability to reach follow-up care	Stable housing support and accessible local services

Key thinking An analysis shows the relationship between determinants, not just a list of them.

A03 LIVE • 2 minutes

A low-income shift worker repeatedly misses clinic appointments. Build a chain linking TWO interacting determinants to a health consequence, then propose one matched action.

Australia in an international context

01 How healthy are Australians? | NESA p27 • R4

Comparison needs a shared measure OECD comparisons can show strengths and gaps, but Australia's position changes with the indicator. Life expectancy, preventable mortality, smoking and obesity measure different aspects of health. There is no single ranking that answers every health question.

An evidence anchor Health at a Glance 2025 reports Australian life expectancy above the OECD average and daily smoking below it, while self-reported obesity is above the average. The indicators use different reference years. The publication year is not automatically the year each measure was collected.

Explain, then qualify Differences may relate to prevention, healthcare access, income distribution, education, environments and behaviour. Check age structure, definitions, reporting practices and data quality. Self-reported and measured obesity are not interchangeable.

Learn without copying blindly A policy that succeeds elsewhere may need adaptation to Australia's geography, federal system, cultures and service capacity. Identify its mechanism, consult affected communities, resource implementation and evaluate who benefits.

A useful comparison structure	Your reasoning
Pattern	Better or worse on which measure, compared with whom, and when?
Explanation	Which determinants or system features could contribute?
Transfer	What strategy could address a comparable Australian need?
Qualification	What local barriers, data limits or unintended effects need consideration?

A04 AFTER WORKSHOP • Apply it

A hypothetical OECD country improves access to preventive care through no-cost neighbourhood clinics with evening appointments. Explain TWO considerations before applying this approach in Australia. (4 marks)

CVD, cancer and type 2 diabetes

01 How healthy are Australians? | NESA p27 • R1, R3, R5, R6

Study each condition through the same lens Explain what the condition is; identify its incidence, prevalence, morbidity and mortality patterns; connect risk and protective factors; then identify where and for whom it is changing. A risk factor changes probability, not certainty.

Patterns require care CVD mortality has declined over the long term, although burden and inequities remain. Cancer outcomes differ greatly by cancer type: improved survival can coexist with more people living after a diagnosis. Type 2 diabetes data also depend on the measure: Australian diagnosed age-standardised incidence declined over 2000-2021; this does not mean diabetes care is no longer a priority.

Extend after the workshop Page 37 compares the evidence measures and their limitations. Use it with your class notes to strengthen a condition profile.

Condition	Risks and protection	Patterns and implications
Cardiovascular disease: diseases of the heart and blood vessels	Risks include smoking, high blood pressure, adverse blood lipids, inactivity and diabetes. Protection includes tobacco control, activity and effective risk management.	Age and disadvantage influence burden. Compare age-standardised trends with actual service demand in an ageing population.
Cancer: uncontrolled abnormal cell growth	Risks vary: tobacco, UV exposure, some infections, alcohol, age and inherited susceptibility. Prevention includes sun protection, vaccination where relevant and reduced exposure.	Incidence and survival vary by site, age and sex. Appropriate screening can support earlier detection; it does not prevent every cancer or guarantee a cure.
Type 2 diabetes: impaired insulin action and insufficient insulin response	Risks include age, family history, excess body fat and inactivity, shaped by social conditions. Activity, supportive food environments and appropriate care help reduce risk or complications.	Diagnosed prevalence is not the same as total prevalence: undiagnosed disease is missed. Complications create morbidity even when diabetes is not recorded as the underlying cause of death.

A05 AFTER WORKSHOP • HSC-style

For ONE of these conditions, explain how a population-level protective strategy could reduce its health burden. (4 marks)

Healthy ageing and future needs

01 How healthy are Australians? | NESA p27 • R1

An ageing population A larger proportion of older people changes demand for healthcare, housing, transport and support. AIHW reports that people aged 65 and over comprised about 18% of the population in 2024-2025. Projections are planning scenarios, not guaranteed outcomes.

Healthy ageing The goal is to maintain functional ability, participation and wellbeing, including for people living with disease. Ageing is diverse: chronological age alone does not establish dependence or poor health.

Opportunities as well as challenges Older people contribute through paid work, volunteering, caring, cultural knowledge and social relationships. More years of life can create opportunities, while multiple conditions, isolation, inaccessible environments and workforce shortages can increase support needs.

Plan across sectors Governments and non-government agencies need a sustainable workforce, coordinated care and culturally appropriate services. Accessible housing and transport, social connection, prevention, rehabilitation and carer support can help people remain independent. Digital options should retain accessible alternatives.

Strategy	Mechanism	Evidence of success
Accessible transport and community activities	Maintains access and connection	Participation, unmet transport needs, reported isolation
Strength and balance opportunities	Supports function and confidence	Functional ability and participation, with safety monitoring
Coordinated community-based care	Reduces fragmented support	Continuity, patient experience and avoidable admissions

A06 LIVE • 1 minute

A council judges its ageing strategy only by the number of aged-care beds. Identify ONE missing dimension of healthy ageing and ONE better indicator for it.

Who does what in healthcare?

02 Australia's healthcare system | NESA pp27-28 • R8, R9

Purpose and effectiveness The system promotes health, prevents illness, diagnoses and treats conditions, supports rehabilitation and provides ongoing and end-of-life care. Assess effectiveness using access, quality, outcomes, equity, patient experience and sustainability.

Access is more than a service existing Affordability, distance, availability, cultural safety, disability access and understandable information influence whether a person can use a service. Universal arrangements do not remove every gap or barrier.

Participant	Main contribution and connections
Australian Government	Medicare and national programs; Pharmaceutical Benefits Scheme; contributions to public hospital funding; national policy and regulation responsibilities.
State and territory governments	Manage public hospitals and many community and public health services; jointly fund public hospital care with the Australian Government.
Local government	Local environmental health, planning, facilities and community initiatives; responsibilities vary across jurisdictions.
Private organisations	Private hospitals, health professionals, insurers and other services; may combine public subsidies with fees or insurance payments.
Not-for-profit and community organisations	Advocacy, support, prevention and services responding to community needs; often work with public services. Community control has a distinct governance role.

A07 AFTER WORKSHOP • HSC-style

A new outpatient clinic reduces travel distance but charges fees that many local residents cannot afford. Assess its contribution to equitable access. (4 marks)

Funding, prevention and person-centred care

02 Australia's healthcare system | NESA p28 • R8, R9

Understand the arrangements Medicare helps eligible people access specified services at low or no cost; it does not make every health service free. Private insurance covers services according to the policy and may involve exclusions or gaps. The NDIS funds eligible disability supports; My Aged Care is an entry point to aged-care services. They serve different purposes.

Expenditure is a judgement about needs Treatment meets current illness needs; prevention aims to avoid or reduce future illness. Effective prevention can improve wellbeing and reduce some future demand, but not every program saves money. Sustainability means maintaining useful, affordable care over time while considering access and equity.

Person-centred collaboration Start with the person's goals, preferences and circumstances. A GP, hospital team, allied health workers, community organisation and family or carers can coordinate a plan with consent. Clear responsibilities, understandable information and follow-up reduce fragmentation.

A worked connection After a stroke, a person may value returning to community activities. Hospital rehabilitation, community physiotherapy, accessible transport and carer support contribute different parts of the plan. Coordination matters because clinical improvement alone may not restore participation.

Funding choice	Question to ask
More acute treatment capacity	Who currently misses essential care, and will access improve?
Earlier prevention and community support	Which risk or barrier is addressed, and what outcomes are likely over time?
A mixed approach	How will services coordinate, and how will equity and costs be monitored?

A08 LIVE • 2 minutes

A health service wants fewer avoidable readmissions among older people living alone. Propose TWO collaborating services and explain their distinct contributions to a person-centred plan. Use key phrases.

Being a critical health consumer

02 Australia's healthcare system | NESA p28

Complementary approaches Complementary products or services are used alongside conventional care. Examples include some health apps, websites and naturopathy services. Consider whether a claim concerns prevention, treating a health issue or supplementing medical treatment. An approach being available does not demonstrate its effectiveness.

Evidence and credibility Check the author's relevant expertise, the evidence behind the specific claim, publication date, conflicts of interest and whether independent credible sources agree. Testimonials and large follower counts do not establish cause and effect. Ask about costs, risks, interactions and practical alternatives.

Make an informed choice Match the evidence to the person and purpose. A useful relaxation app is not automatically an effective treatment for a disease. Qualified advice is important where products may interact with medicines or delay appropriate assessment.

Emerging system challenges Ageing, chronic disease, workforce pressures and rising costs increase demand. More care at home or in the community can reduce pressure on hospitals but requires coordination and access. Private-sector expansion can add capacity while creating affordability or fragmentation concerns; effects depend on funding and implementation.

Consumer check	Evidence to look for
What exactly is promised?	A clear, testable benefit for a specified group or purpose
How do they know?	Appropriate research methods, credible sources and limitations
Who benefits financially?	Funding, sponsorship, sales links or other conflicts
What could go wrong?	Costs, interactions, exclusion, delay and privacy concerns

A09 AFTER WORKSHOP • Quick check

An influencer sells a supplement using “90% of customers felt healthier”, with no sample size, comparison group or independent evidence. Identify TWO weaknesses and explain why ONE matters.

Technology and digital health

03 Technology and data | NESA p29

From a tool to a health outcome Technology can measure, monitor, assist diagnosis, support treatment or improve function. Remote monitoring tracks changes between appointments; someone must respond to reliable alerts. AI-supported image review flags cases for professional assessment and needs testing across relevant populations. Precision surgery supports controlled procedures. Assistive communication devices support expression when accessible, personalised and supported.

Digital health Digital health uses digital tools and information to support health and care. Telehealth, electronic records, prescribing systems, portals and health apps can connect people, professionals and information. Connection is valuable when the right information is timely, accurate and usable.

Evaluate both levels Individuals may gain convenience, continuity and earlier support, but face device costs, connectivity, digital literacy or accessibility barriers. Organisations may improve coordination and reduce duplication, while facing integration costs, staff training, cyber-security and data-quality problems.

Do not confuse potential with success A digital appointment is not automatically suitable for a task needing physical examination. AI accuracy can differ across populations if training data are unrepresentative. Judge actual uptake, safety, outcomes, equity and patient experience, rather than the novelty of the tool.



Left: connected video consultation. Right: interrupted connection. Hypothetical situations.

A10 LIVE • 2 minutes • Image stimulus

The two panels show patients using the same video-consultation service. Using the image and your knowledge, give a balanced judgement about access and ONE practical condition for success. Use key phrases.

Big data: useful patterns, responsible decisions

03 Technology and data | NESAs p29

What makes data useful? Big data involves large, complex datasets, often linked from multiple sources. Health records, population datasets and monitoring can reveal patterns that inform service planning, disease research and care. Scale cannot repair inaccurate, biased or missing data.

From pattern to action Forecasting demand can improve resource allocation; identifying high-risk patterns may support earlier care; research can identify possible treatment targets. These uses can reduce duplication or avoidable costs, but establishing effectiveness and a cure requires further research and evaluation.

Privacy and confidentiality Privacy concerns appropriate collection and use of personal information; confidentiality concerns protecting entrusted information from unauthorised disclosure. Use appropriate consent or authority, minimum necessary data, controlled access, secure storage, audit trails and governance. Removing names reduces risk but does not guarantee that linked data cannot identify someone.

Stage	Key question
Collect and check	Are the data accurate, relevant and representative?
Analyse and interpret	Could bias, confounding or missing information explain the pattern?
Decide and act	What intervention is justified, and who is accountable?
Evaluate and improve	Did health outcomes and equity improve at an acceptable cost?



Use evaluation findings to refine the next cycle.

A11 AFTER WORKSHOP • HSC-style

Explain ONE potential benefit and ONE limitation of using linked hospital and community-service data to plan health services. (4 marks)

Four SDGs as a connected framework

04 SDGs and community action | NESA pp29-30

What the goals do The Sustainable Development Goals provide a shared framework for improving social, economic and environmental conditions. In this course, focus on SDGs 3, 4, 10 and 11 and explain how they interact in a community.

Use a causal chain An education initiative can improve understanding, but a person also needs affordable choices and accessible services. Linking goals helps explain why community action often needs several sectors and more than one strategy.

Goal	Health connection	Possible community action and indicator
3 Good Health and Wellbeing	Prevent illness; improve wellbeing and access to care	Accessible prevention or support services → uptake, wellbeing or relevant health outcomes
4 Quality Education	Inclusive learning builds knowledge, skills and opportunity	Practical food literacy or health-information sessions → skills and participation across groups
10 Reduced Inequalities	Reduce unfair differences in opportunities and outcomes	Remove fees, language or disability barriers → smaller participation gaps
11 Sustainable Cities and Communities	Inclusive, safe and sustainable places support health	Accessible transport, housing or community spaces → access, safety and sustained use

Key thinking A goal is a framework. The strategy is the action taken to address a specific community need.

A12 AFTER WORKSHOP • Quick check

A library runs free multilingual food-literacy classes beside an accessible bus stop. Match THREE different features to THREE different SDGs and explain each link in a phrase.

From community needs to effective action

04 SDGs and community action | NESAs p30 • R10

Start with the community Combine population data with local voices and existing strengths. Identify the priority, who is least well served and the barriers involved. Co-design actions, identify responsible partners and advocate using evidence and community priorities.

Learn from another community Healthy Cities Australia's Cook Chill Chat combines cooking and social connection. Its design offers a useful example for considering food skills and wellbeing. Links to SDGs 3 and 4 are our application of the framework; a program description alone does not prove a measured health effect.

Evaluate before claiming success Separate outputs (sessions delivered), participation (who attended), outcomes (skills, connection or behaviour) and longer-term impact (health or inequity). Compare baseline with follow-up; check who was missed, costs, unintended effects and other possible causes of change.

Hypothetical library proposal The illustrated program offers free weekly cooking and food-budgeting classes, translated resources and supervised children's activities. Residents report food insecurity, language barriers and difficulty attending with children. Some shift workers cannot attend its daytime sessions.



Fictional library program: cooking skills, food budgeting and supervised children's activities.

Key thinking Evaluate means make a supported judgement using criteria such as reach, equity and likely effectiveness.

A13 LIVE • 3-minute plan; AFTER WORKSHOP • full response

Using the illustration and proposal, evaluate the library program using TWO relevant SDGs. (6 marks)
Live: plan a judgement, two goal-feature-need links and one limitation. Complete the full response after the workshop in your own notes.

Screen first; test for a purpose

05 Personalised assessment and prescription | NESA p31 • R11

Screening and testing answer different questions A pre-exercise questionnaire and relevant health screening identify factors that may affect safe participation and the need for referral or modification. A fitness or performance test measures a relevant capacity. A high fitness score does not replace health screening.

Personalise the decision Consider medical history, symptoms, current activity, goals, experience and preferences. A qualified professional interprets screening information and selects an appropriate next step. Screening does not mean every person needs the same test or automatic medical clearance.

Choose relevant, defensible tests Validity means the test measures the intended capacity. Reliability means results are consistent under comparable conditions. Standardise procedures, equipment and recovery; consider motivation, learning effects, consent, privacy and risk. A test can be reliable but irrelevant to the athlete's goal.

Participant / test	Why it may be useful	Limitation to consider
Recreational participant / suitable submaximal test	Provides an accessible baseline for health and participation goals	Fitness level and health status may make maximal testing inappropriate
Intermittent-sport athlete / Yo-Yo test	Assesses capacity for repeated intermittent running	Not a direct measure of every skill, and protocols vary
Appropriately screened athlete / Wingate test	Assesses high-intensity cycling power and fatigue over a short effort	Demanding protocol; cycling performance does not directly represent every sport

A14 LIVE • 1 minute • Multiple choice

A recreational walker wants to increase weekly activity and reports chest discomfort during exercise. What is the most appropriate first step?

- A. Complete a maximal sprint test to establish fitness.
- B. Use screening information to arrange appropriate assessment before progression.
- C. Prescribe the same program used by an elite distance runner.
- D. Ignore the symptom because walking is low intensity.

Turn assessment into a program

05 Personalised assessment and prescription | NESA p31

A useful sequence Goals and needs → screening → relevant baseline assessment → individualised prescription → monitoring → reassessment. Each step should inform the next; testing without using the result has limited value.

Use FITT with context Frequency, intensity, time and type help specify a program. Also consider total load, recovery, current capacity and the movement demands of the sport. The same sport can contain different positions, goals and training histories.

Use more than a score A low result may reflect fatigue, unfamiliarity, motivation or testing conditions. Combine test results with training history, movement observations and the athlete's feedback. Reassess consistently and look for changes that matter to the goal.

A worked example A badminton player's technical accuracy is good when fresh but falls late in rallies. Assessment should distinguish skill under fatigue from conditioning limits. A program might combine appropriate interval conditioning with skill work under controlled fatigue, while monitoring recovery and accuracy.

Assessment finding	Training implication	Monitoring choice
Goal requires repeated efforts; recovery between efforts is weak	Develop relevant intermittent conditioning progressively	Repeat a suitable test and track late-session quality
Load rises but fatigue and soreness persist	Review total stress, recovery and progression	Training diary, session effort and wellbeing
A key movement is inefficient	Target technique and appropriate supporting capacity	Consistent video comparison and performance measures

A15 AFTER WORKSHOP • HSC-style

Explain how exercise assessment can help personalise a training program for a recreational cyclist preparing for a longer ride. (4 marks)

Energy systems: the foundation underneath training

06 Training and performance | Year 11 assumed knowledge: NESA p21; connection to pp31-32

ATP is the immediate energy currency Muscular work uses ATP. Energy systems resynthesise it at different rates and capacities. All contribute during exercise; intensity, duration, fitness and recovery change their relative contributions. There is no precise moment when one switches off and another switches on.

Interplay explains training needs A short acceleration relies heavily on rapid ATP supply. During repeated accelerations, aerobic metabolism contributes to ongoing work and recovery between efforts, including phosphocreatine restoration. A field player therefore needs more than one form of conditioning.

Fatigue is not one substance Fatigue may involve phosphocreatine depletion, changes in muscle chemistry, reduced carbohydrate availability, heat, hydration and neural factors. Lactate is not simply a waste product that causes all fatigue or next-day soreness.

System	Fuel / ATP supply	Use and recovery
ATP-PCr	Stored ATP and phosphocreatine; very rapid supply, small capacity	Major contribution to very brief maximal efforts; phosphocreatine is restored during recovery, supported by aerobic processes.
Glycolytic (Lactic Acid)	Glucose/glycogen; rapid supply, limited sustained capacity	Important in hard efforts beyond the brief ATP-PCr-dominant phase; contribution depends on intensity and recovery.
Aerobic	Carbohydrate and fat, with smaller protein contribution in some conditions; slower rate, large capacity	Major role in sustained exercise and between-effort recovery; prolonged work can be limited by fuel, heat and other factors.



Left to right: acceleration → jogging → walking between efforts. No fixed energy-system switch points.

A16 LIVE • 1 minute • Image stimulus

The same hockey player accelerates, jogs and walks between efforts. Why is “the player uses only ATP-PCr because they sprint” incomplete? Give one work link and one recovery link.

Choosing aerobic and anaerobic methods

06 Training and performance | NESA pp31-32

Match the method to the demand The label alone is insufficient. Work intensity, work duration, recovery, repetitions and movement pattern determine the training stimulus. HIIT can improve aerobic as well as anaerobic qualities; circuit training depends on the stations and work-rest design.

Method	What it involves	Sporting application / condition
Continuous	Sustained activity without planned rests	Build sustained aerobic capacity; intensity and duration suit the athlete.
Fartlek	Continuous activity with planned or terrain-led pace changes	Useful when pace varies, such as cross-country running.
Aerobic interval	Repeated sustained work with recovery periods	Accumulate quality aerobic work at a controlled intensity.
Circuit	A sequence of stations	Can develop aerobic fitness if organised with suitable large-muscle work and limited recovery; not every circuit is aerobic.
Anaerobic interval	Short, demanding work separated by recovery	Develop repeated high-intensity performance; recovery alters quality and energy demands.
HIIT / SIT	High-intensity intervals / very short all-out sprint intervals	HIIT is not necessarily all-out. SIT is demanding and needs appropriate preparation and recovery.
Plyometric	Rapid stretch-shortening actions such as jumps and bounds	Develop explosive qualities; technique, landing control and progression matter.
Resistance	Muscles work against an external or body-weight load	Can develop strength, power or endurance depending on load, speed, repetitions and rest.

A17 AFTER WORKSHOP • HSC-style

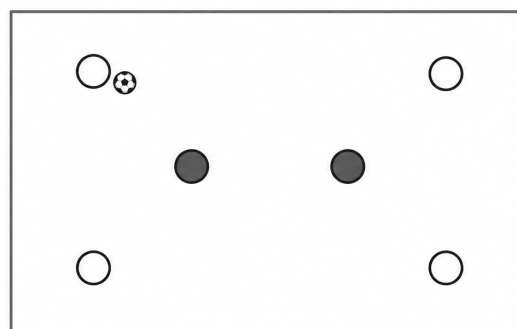
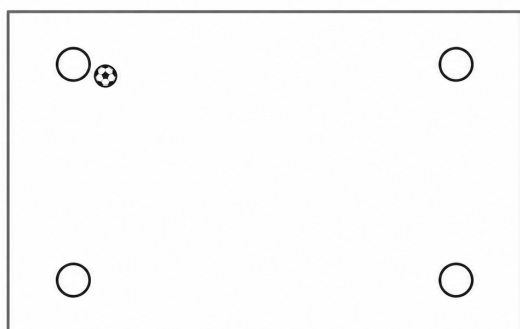
Compare continuous training and fartlek training for a cross-country runner. (4 marks)

Strength, flexibility and skill development

06 Training and performance | NESA p32

A method needs a purpose Strength, flexibility and skill methods can support each other. The best choice depends on the movement, the athlete's experience, safety and transfer to performance. More range of movement is not automatically better for every task.

Method group	Distinctions to know	Application
Static / dynamic flexibility	Static: hold a position. Dynamic: controlled movement through range.	Choose according to the session purpose; dynamic movements can rehearse upcoming actions.
Ballistic / PNF flexibility	Ballistic: momentum or bouncing actions. PNF (proprioceptive neuromuscular facilitation): combines contraction and stretching techniques.	Require appropriate technique and supervision; suitability depends on the athlete and task.
Free / fixed weights	Free weights require control of a less constrained movement; machines guide the path.	Select relevant joint actions, technique demands and manageable load. Neither is universally superior.
Body weight / elastics	Body mass provides resistance / elastic tension provides resistance.	Accessible options; change leverage, tension or exercise difficulty to progress.
Drills	Repeated practice of a targeted movement or decision	Useful for a specific weakness, with feedback and appropriate variability.
Modified games / games for specific outcomes	Adjust rules, space, numbers or scoring to emphasise a skill or tactical goal	Create decisions resembling competition; e.g. reward switching play to develop use of width.



Practice A (left): unopposed passing. Practice B (right): four attackers and two defenders. White markers = attackers; dark markers = defenders.

A18 AFTER WORKSHOP • Image-based application

A junior football team passes accurately in unopposed drills but loses possession under pressure. Using the two practice diagrams, justify which format better addresses this problem. (3 marks)

Principles: make training decisions explainable

06 Training and performance | NESA p32

Apply principles to both aerobic and strength work Principles guide decisions; methods are the activities used. Training thresholds refer to a sufficient and appropriate stimulus for the intended adaptation. They are not one universal heart-rate percentage or weight for everyone.

Principle	Aerobic example	Strength example
Progressive overload	Gradually adjust duration, frequency or intensity as capacity improves	Gradually adjust load, repetitions, sets or exercise difficulty while maintaining technique
Specificity	Match movement and work-recovery demands to the event	Target relevant muscles, joint actions, force and speed demands
Training thresholds	Choose intensity and duration that challenge the relevant capacity	Choose load, effort and volume that challenge the intended strength quality
Reversibility	Endurance adaptations reduce with insufficient stimulus over time	Strength and muscle adaptations can decline when training stops
Variety	Change suitable routes or methods while retaining the goal	Vary exercises or loading within a purposeful plan
Warm-up / cool-down	Prepare progressively for the work; reduce intensity gradually afterwards	Prepare movement patterns and loads; transition out of the session appropriately

Key thinking Progressive overload means an appropriate increase over time, not maximal effort in every session.

A19 LIVE • 3-minute plan; AFTER WORKSHOP • optional full response

An experienced rower repeats the same comfortable endurance session and the same light resistance circuit for eight weeks. Performance plateaus. Explain how TWO training principles could guide improvements to BOTH components. (6 marks)

Live: plan two principle → aerobic change → strength change chains.

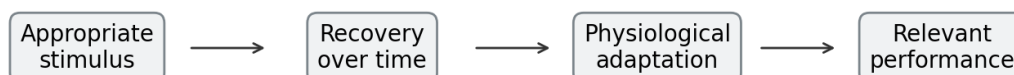
Adaptations: the link to better performance

06 Training and performance | NESA p32

Chronic adaptation versus immediate response Heart rate rising during a session is an immediate response. Lower heart rate at the same submaximal workload after consistent training is a possible chronic adaptation. Appropriate stimulus and recovery over time make adaptation possible; the response varies between people.

Use the mechanism A stronger answer connects a program decision to a physiological change and then to a performance consequence. Avoid claiming every method produces every adaptation.

Adaptation	What changes and why it matters
Heart rate; stroke volume; cardiac output	Aerobic training can increase stroke volume. At a fixed submaximal demand, heart rate may fall. Cardiac output = heart rate × stroke volume; resting output need not increase. Maximal output may increase, without an increase in maximal heart rate.
Oxygen uptake and lung capacity	Improved oxygen delivery and muscular use can increase maximal oxygen uptake. Better aerobic performance does not require a large increase in lung volumes; healthy lung capacity is not usually the main training limitation.
Haemoglobin level	Haemoglobin carries oxygen. Total haemoglobin mass and blood volume can influence transport; concentration alone can be affected by plasma-volume changes. Do not assume every athlete's concentration rises.
Muscle hypertrophy	Appropriate resistance training can increase muscle fibre size, supporting force production; neural adaptations also contribute to strength.
Fast/slow twitch fibres	Slow-twitch fibres are more fatigue resistant; fast-twitch fibres support rapid force. Training changes functional capacity within fibres; it does not simply convert every fast fibre into a slow fibre.



Repeated, appropriately managed cycles support adaptation.

A20 AFTER WORKSHOP • Quick check

Correct this statement in two sentences: “Endurance training always increases resting cardiac output because both resting heart rate and stroke volume rise.”

Designing a purposeful training session

07 Individual and group sports | NESA pp32-33

Start with a goal A session aim should name the capacity, skill or decision being improved. Check health, injury status, environment, equipment and current load. A successful session develops the goal while maintaining safety and an appropriate balance of work and recovery.

Shared structure, different decisions Individual sports can closely personalise pacing and technical feedback. Group sports add coordination, roles and opponent interaction, but still need individual adjustments. Neither format removes the need for conditioning, skill or reflection.

Session element	Individual example: tennis singles	Group example: basketball
Warm-up and preparation	Progressive movement and relevant strokes	Progressive movement and ball work for planned roles
Skill instruction / practice	Target a serve weakness with selected feedback	Practise passing decisions under pressure
Conditioning	Match repeated effort and recovery to the player	Match repeated running demands, adjusted by role and load
Strategy and tactics	Plan rally patterns against an opponent	Rehearse spacing and coordinated defensive decisions
Cool-down and review	Gradual transition; record what changed and next priority	Gradual transition; individual and team reflection
Safety throughout	Surface, heat, fatigue, screening and technique	The same factors, plus contact, spacing and group organisation

A21 AFTER WORKSHOP • HSC-style

Compare how a coach could organise skill practice in an individual sport and a group sport. Use examples. (4 marks)

Planning across the year

07 Individual and group sports | NESAs pp32-33

Periodisation organises priorities Divide the year into phases and sub-phases so conditioning, skill, competition and recovery support performance when needed. A yearly plan responds to the calendar, athlete history, fitness components and skill demands; it is not a fixed recipe.

Pre-season, in-season and off-season Pre-season develops general then increasingly specific preparation. In-season balances performance, maintenance and recovery. Off-season allows recovery and suitable active maintenance before the next build. Sub-phases refine these priorities around particular events or blocks.

Peaking and tapering Peaking aims for readiness at key competition. Tapering reduces training load before a target event while retaining appropriate intensity and specificity to reduce fatigue without unnecessary loss of fitness. It does not mean doing nothing.

Individual and group calendars A track athlete may target a small number of major meets and plan a distinct peak. A football team may need sustained weekly readiness across a season, with recovery after fixtures, role-specific load and adjustments around finals. Individuals within either setting still need personalised management.

Track athlete

General → specific preparation	Taper	Target meet	Rebuild / later competition	Recovery
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Football team

General → specific preparation	Weekly competition: recover → prepare → compete	Off-season
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Original schematic. Segment widths do not prescribe calendar dates or training loads.

Key thinking The schematic shows priorities, not a prescribed load or a universal calendar.

A22 LIVE • 2 minutes

Compare ONE annual-planning decision for a track athlete targeting a championship and a football team playing weekly. Include one similarity and one difference.

Psychology, strategy and tactics

07 Individual and group sports | NESAs p33; Year 11 bridge p23

Arousal, stress and anxiety Arousal is activation or readiness; stress involves demands and perceived coping resources; anxiety involves worry and associated responses. The most useful arousal level depends on the person and task. More activation is not always better.

Select a strategy for a reason Breathing and relaxation may help regulate excessive activation; imagery rehearses performance; self-talk directs attention; process goals focus on controllable actions. A routine must be practised and reviewed, not introduced as a guaranteed fix on competition day.

Individual and group application An archer might use a breathing and attentional routine before a shot. A hockey team might agree brief communication cues, roles and shared process goals. Individuals within a team can still have different regulation needs.

Strategy versus tactics Strategy is the broader plan for achieving an outcome; tactics are specific decisions used to implement or adapt it. Conditions, the opponent and the group's strengths and weaknesses affect both. Wind might change an individual's pacing choices; a team's strong ball carriers might influence its attacking approach.

Context	Decision and reason
A player rushes when worried	A practised cue and pre-performance routine may redirect attention to the next action
A team's communication breaks down under pressure	Clear roles and short shared cues can support coordinated decisions
Wet conditions reduce reliable handling	Adjust risk and execution choices while retaining the overall objective

A23 AFTER WORKSHOP • Apply it

A doubles pair performs well in practice but argues and rushes decisions in close matches. Justify TWO psychological strategies that could help. (4 marks)

Nutrition: match the event and the timing

08 Sleep, nutrition and supplementation | NESA p33 • R12, R13

Start with the demands Carbohydrate supports higher-intensity work and glycogen stores. Protein supplies amino acids for repair and adaptation. Dietary fat contributes energy and supports normal function. Overall energy and micronutrient adequacy matter across the training week, not only on competition day.

Timing has a purpose Before performance, aim for appropriate fuel and comfortable digestion. During performance, needs depend on duration, intensity, conditions and tolerance. Afterwards, replace relevant fuel and fluid losses and support tissue repair; urgency depends partly on the next session.

Individualise fluid intake Start appropriately hydrated and plan access to fluid. Consider conditions, sweat losses, event length and tolerance. Excessive drinking can also be harmful; one fixed amount does not suit every athlete or event. Practise nutrition and fluid plans during training.

Timing	Long road-cycling event	Short throwing event
Before	Carbohydrate availability, hydration and a familiar tolerated meal	Adequate daily intake, familiar food and hydration; avoid unnecessary fullness
During	Fluid and carbohydrate may support prolonged work; plan access and tolerance	An individual throw does not require carbohydrate feeding; manage needs across warm-up and a long competition day
After	Restore glycogen, supply protein and replace fluid losses, particularly with another session soon	Meet recovery and daily protein/energy needs; total workload determines urgency

A24 LIVE • 2 minutes

Why would a long-distance cyclist and a shot-put athlete have different during-event nutrition needs? Give TWO linked reasons using the table.

Sleep, food and fluid work together

08 Sleep, nutrition and supplementation | NESAs p33 • R12-R14

Recovery is planned Adequate sleep opportunity, sufficient energy and suitable hydration support recovery, concentration, movement quality and training consistency. Poor recovery may contribute to fatigue and injury risk, but no single routine guarantees prevention.

Guidelines need an individual context Use age-appropriate sleep guidance, protect sufficient time in bed and keep routines consistent. Training load, growth, travel, school demands and individual needs influence planning. A universal “eight hours is enough for everyone” rule is not adequate.

Build and monitor a routine Plan meals and fluids around access and session timing; prepare a sleep environment and wind-down routine; review late stimulants, screens and scheduling. Monitor trends in sleep, fatigue, perceived effort and performance. Wearable estimates should be interpreted alongside the athlete’s experience.

Connect the mechanisms Poor sleep can impair attention and decision-making. Low carbohydrate availability can limit demanding work; inadequate overall intake can undermine recovery. Dehydration can impair thermoregulation and performance, especially in demanding conditions. These pressures may interact rather than act separately.

Plan	Monitor	Adjust
Protect recovery opportunities around school and training	Several days of sleep timing, fatigue, effort and performance	Discuss persistent problems; review load and routines rather than masking fatigue
Prepare suitable meals, snacks and fluids	Availability, tolerance and recovery between sessions	Adapt to session duration, environment and next-session demands

A25 AFTER WORKSHOP • HSC-style

Explain how a consistent sleep routine could support movement performance and help reduce injury risk in a student athlete. (4 marks)

Supplements: evidence, purpose and limits

08 Sleep, nutrition and supplementation | NES A p33 • R15, R16

Food first; evidence for a specific use A supplement is not a substitute for sufficient food, recovery or training. Benefit depends on the product, athlete, task and need. Some products have evidence in particular contexts, while others have little credible support. Cost, health effects and contamination also matter.

Micronutrients are not universal performance boosters Iron is needed for oxygen transport, but supplementation should respond to a demonstrated need and qualified advice. More is not automatically better. This principle also applies to other vitamins and minerals.

Responsibility matters Sport Integrity Australia advises that no supplement is guaranteed free of prohibited substances. Independent batch testing can reduce, but cannot remove, contamination risk. Athletes remain responsible for prohibited substances found in their bodies.

Product	Potential role	Limit or risk to explain
Protein products	Convenient way to help meet protein needs for repair and adaptation	May be unnecessary if food already meets needs; extra protein alone does not ensure hypertrophy
Caffeine	Can assist alertness and some endurance or high-intensity performance	Response varies; anxiety, sleep disruption and other side effects may outweigh benefit
Creatine	Can support phosphocreatine availability and repeated high-intensity work in suitable contexts	Not equally useful for all tasks; body-mass changes and individual tolerance matter
Micronutrients	Correct a relevant deficiency or inadequacy under qualified guidance	Unnecessary use can be ineffective or harmful; diagnose the need rather than guess

A26 AFTER WORKSHOP • HSC-style

Discuss the use of protein supplements by an athlete seeking strength gains. (4 marks)

Biomechanics: explain the movement mechanism

09 Sustained movement and performance | NESA p33; Year 11 bridge pp19-20

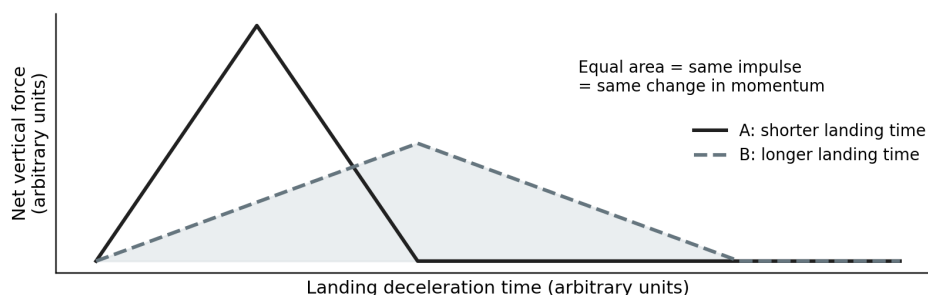
Efficiency is task-specific Efficient movement achieves the task with appropriate control and energy use. Performance may involve speed, accuracy, stability or reducing unnecessary loading.

Force, motion and stability A net force changes motion. A wider base of support and lower centre of mass can improve stability when suited to the task. Coordinated body-segment sequencing can transfer force; reducing unnecessary frontal area can reduce drag. Explain the mechanism in its movement context.

Connect the movement to the graph Greater controlled hip and knee flexion can extend landing deceleration. For the same change in vertical momentum, a longer deceleration time reduces average net force. The pictures illustrate movement; the equal-area schematic supplies the comparison. Neither records measured athlete data.



A (left): limited flexion. B (right): greater controlled flexion. Each pair shows contact then deceleration; time is not measured.



Original conceptual diagram. Equal areas are deliberate; values are not athlete measurements.

A27 AFTER WORKSHOP • Image-based HSC-style

Using the landing illustrations and graph, explain why extending controlled landing time can reduce average net force when the change in momentum is the same. (3 marks)

Recovery and technology for sustained performance

09 Sustained movement and performance | NESA pp33-34

Recovery supports the next demand Recovery strategies should fit the type of fatigue, time available, athlete preference and training goal. Sleep, nutrition and hydration form the foundation. A recovery tool is not evidence that the program's total load is appropriate.

Choose, justify, monitor A cool-down provides a gradual transition after work; do not claim it prevents all soreness. Hydrotherapy may support perceived recovery in some settings, but effects depend on the protocol and goal. Relaxation or controlled breathing can help manage psychological arousal and stress.

Technology can inform a decision Equipment innovations may alter technique or efficiency. Video can reveal movement patterns; GPS, timing systems and other monitors can track demands. Use valid measures, consistent conditions and trends alongside athlete feedback. More data does not automatically mean better coaching.

A complete explanation Name the strategy or technology, identify the information or mechanism, then show how it guides a decision. Consider cost, access, accuracy, dependence on devices and whether the benefit transfers to actual performance.

Situation	Potential response	What would justify keeping it?
Athlete remains mentally activated after evening competition	Practised relaxation and a consistent wind-down routine	Useful change in perceived recovery and sleep without disrupting other needs
Repeated loss of technique late in sessions	Video comparison alongside load and fatigue records	Evidence that a suitable program change improves quality
New equipment is claimed to improve efficiency	Controlled comparison after familiarisation	Relevant improvement, manageable cost and compliance with rules

A28 AFTER WORKSHOP • Apply it

A runner's watch reports excellent "readiness", but the runner reports persistent fatigue and deteriorating technique. Explain why the coach should use more than the watch score. (3 marks)

Injuries, rehabilitation and return to play

09 Sustained movement and performance | NESA p34 • R17

Classify along more than one dimension Direct injury follows an external force; indirect injury occurs without a direct external blow at the injury site. Soft tissue includes muscle, tendon and ligament; hard tissue includes bone. Overuse develops through repeated loading with inadequate adaptation or recovery. Categories can overlap.

TOTAPS is a conditional assessment sequence Talk → Observe → Touch → Active movement → Passive movement → Skills test. Appropriate assessment is undertaken by someone with suitable training. Stop if pain, signs of significant injury or concern indicate referral; never force progression to “prove” fitness. Suspected concussion requires removal and appropriate medical assessment, not continuation through TOTAPS or same-day return.

Management is injury-specific Protect the athlete and obtain appropriate assessment. Rehabilitation can progress through mobilisation, graduated exercise and training to restore function and sport demands. Heat and cold have context-dependent purposes and suitability; they are not universal cures or substitutes for diagnosis.

Prevention Progress load appropriately, develop relevant strength and technique, use suitable equipment and environments, and monitor fatigue. Match prevention to the sport and injury mechanism.

Return to play is a process Consider symptoms, function, sport-specific demands, psychological readiness, medical advice and the sport’s policy. Coaches and organisations must support safe decisions; an important match is not evidence of readiness. Following concussion, use the relevant graduated return process and clinical guidance.

Example	Possible classification
A collision causes a fractured forearm	Direct; hard tissue
A sudden change of direction strains a muscle	Indirect; soft tissue
Repeated loading contributes to a bone stress injury	Overuse; hard tissue

A29 LIVE • 2 minutes

A player feels pain during active movement after an injury but wants to complete the skills test to play a final. Identify TWO problems with this decision and state the appropriate general next step.

Drugs, performance and ethical responsibility

09 Sustained movement and performance | NESA p34 • R16

Separate purpose, risk and rules Drugs may be used in injury management or sought for performance enhancement. A therapeutic purpose does not automatically make every substance or method permitted in sport. Current rules, the specific medicine and any relevant therapeutic-use process must be checked through authoritative channels.

Injury management Pain relief can be appropriate under qualified advice, but masking pain does not repair tissue or establish readiness to return. Misuse may expose an athlete to further harm. Medical decisions should prioritise health rather than pressure to compete. -

Performance enhancement Some substances aim to change muscle growth, oxygen transport, alertness or recovery. Potential performance effects must be considered alongside health harm, coercion, fairness, integrity and prohibited status. Do not assume a substance is safe because it is common or prescribed for another purpose.

Testing and accountability Drug testing supports deterrence and detection within anti-doping systems, but a negative test does not establish that every behaviour is safe or ethical. Athletes need accurate information about medicines and supplements, and responsibility extends to coaches and support environments.

Question	Reasoning to include
Health	Short- and long-term effects; masking injury; qualified guidance
Ethics	Fairness, honesty, pressure on others and duty of care
Rules and testing	Check current authoritative requirements; understand responsibility and limitations
Sporting environment	Support informed decisions without coercion or normalising unsafe use

A30 AFTER WORKSHOP • HSC-style

Discuss the use of pain-relieving medication to enable an injured athlete to compete. (4 marks)

Final mixed retrieval

10 Consolidation and next steps | Across both focus areas

Work from memory first Use short phrases. The purpose is to expose a missing link in your understanding, then repair it during discussion.

A31 LIVE • 5 minutes

1. A city's crude death rate rises as its population ages. Name a useful additional measure for comparing mortality over time and explain why.
2. A health campaign reaches many residents but very few people with low incomes. What question should be asked before claiming it reduced inequity?
3. Name one link between progressive resistance training and improved force production.
4. Why should a successful individual-sport training plan not be copied unchanged by an entire team?
5. Unpack this question: "Justify TWO recovery strategies for a tennis player during a tournament. (6 marks)" Identify the verb, exact number of choices and the contextual link needed. Do not write the full answer.

Your syllabus confidence and next action

10 Consolidation and next steps | NESA pp26-34

Make confidence specific For each inquiry area, mark Secure, Developing or Priority. “Secure” means you can explain a relationship and apply it to an unfamiliar example, not merely recognise the heading.

Inquiry area	Secure / Developing / Priority
Health status: measures, groups, OECD, conditions, ageing	
Healthcare: access, roles, funding, critical consumers	
Technology, digital health and big data	
SDGs and community action	
Personalised exercise assessment and prescription	
Training methods, principles and adaptations	
Individual/group planning, psychology and tactics	
Sleep, nutrition and supplements	
Sustained performance: biomechanics, recovery, injury and drugs	

A32 LIVE • 4 minutes

Choose TWO priority concepts. For each, record: the exact gap → a workbook page/activity to revisit → what you will produce to demonstrate understanding.

Priority 1:

Priority 2:

Year 11 assumed knowledge: reconnect the foundations

10 Consolidation and next steps | NESA pp15-23; HSC specifications p39

After-workshop reference The HSC examination assumes Year 11 knowledge and understanding. These foundations support the Year 12 focus areas. Use your course notes to repair a gap; this page is a navigation bridge, not a replacement for the Year 11 course.

Keep the current course boundaries Year 11 includes Health for Individuals and Communities, The Body and Mind in Motion, a Collaborative Investigation and Depth Studies. Year 12 includes its two focus areas and Depth Studies. Connect these foundations to the particular Year 12 question you are answering.

Foundation to retrieve	Where it supports Year 12
Health dimensions and the dynamic nature of health; epidemiological measures; determinants (broad features of society, environmental, socioeconomic, behaviours, biomedical); social justice (participation, equity, access, rights)	Health status, inequities, critical health consumers and community action
Health promotion, including the Ottawa Charter and models in the current Year 11 syllabus	Understanding coordinated action and supportive conditions; do not substitute a different framework when a Year 12 question specifies SDGs
Skeletal and muscular structures, joint actions, agonists/antagonists/stabilisers and contractions; biomechanics of motion, balance/stability, fluid mechanics and force	Training specificity, technique analysis and injury-related movement
Respiratory and circulatory systems, gas exchange and transport; digestive, endocrine and nervous-system roles; systems working together	Nutrition, energy supply, movement control and physiological adaptation
ATP-PCr, Glycolytic (Lactic Acid) and Aerobic systems; fuels, fatigue and interplay; FITT; immediate physiological responses	Pages 18-23 and training decisions across sports
Skill acquisition: learner characteristics; cognitive, associative, autonomous stages; skill classifications; practice and feedback; motivation, self-regulation and group cohesion	Selecting skill/tactical practice and psychological strategies
Research: questions, methods, ethics, validity, reliability, credibility and conclusions	Interpreting health evidence, assessment data and claims about training

Key thinking When using a Year 11 concept, connect it directly to the Year 12 question's context and requirements.

Evidence reference: read the measure, then the pattern

10 Consolidation and next steps | NESA pp26-27 • R5, R6, R18-R21

After-workshop reference These dated examples deepen pages 6 and 8. They are evidence anchors, not figures to memorise. Do not combine different years, populations or definitions into a single ranking.

Population inequities AIHW's 2020-2022 estimates show lower life expectancy for First Nations peoples than for non-Indigenous Australians within the same estimation framework. Compare like methods and periods; do not infer that a national estimate describes every community. Adult heart, stroke and vascular disease prevalence in 2022-2024 was higher in the most disadvantaged than least disadvantaged areas after age adjustment (R5, R19).

Condition / measure	Evidence and interpretation
CVD: prevalence, morbidity, mortality (R5)	Self-reported adult heart, stroke and vascular disease prevalence was 6.4% in 2022-2024. CVD hospital admissions indicate substantial morbidity but count episodes, not unique new cases. Age-standardised CVD mortality fell 80% from 1980 to 2024; rates remain higher at older ages.
CVD: incidence (R5)	Use condition-specific new-event measures, such as new coronary events or stroke, rather than treating all CVD hospitalisations as new cases. Repeated admissions and different CVD diagnoses complicate one combined incidence measure.
Cancer: incidence and mortality (R18)	From 2000 to the 2025 estimates, age-standardised incidence rose while mortality fell. Rising case counts also reflect population growth and ageing. Estimated recent values are projections, not complete observed counts. Patterns differ by cancer type.
Cancer: prevalence and morbidity (R18)	More survivors can increase the number living after cancer. Prevalence may be defined by time since diagnosis, such as five-year prevalence. It does not mean everyone counted has active disease; treatment effects and ongoing support needs still matter.
Type 2 diabetes: incidence and morbidity (R6)	Diagnosed age-standardised incidence fell 45% from 2000 to 2021. Type 2 diabetes still contributed 2.2% of total disease burden in 2024, illustrating why fewer new diagnoses do not remove ongoing needs.
Type 2 diabetes: prevalence and mortality (R20, R21)	Register-based prevalence was 4.6% in 2021 and higher with greater disadvantage. Age-adjusted prevalence rose earlier, then stabilised over the later decade. In 2024 preliminary data, 63% of deaths listing diabetes as an underlying or associated cause involved type 2. This is not the percentage of all deaths.

Key thinking When using your own class condition study, retain its date, disease definition and measure. A trend claim needs evidence for that particular measure.



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