Sample Scope and Sequence

Transdisciplinary Science, TDS215122

Scope and sequence

Below is a possible sequence of content for Transdisciplinary Science, TDS215122. This example supports teachers to develop their own scope and sequence documents to meet the needs of learners.

Work requirements have been identified within this possible sequence of content. Providers must ensure there are sufficient opportunities for learners to demonstrate improvement over time and/or consistency of achievement against each criterion.

This sample scope and sequence must be adapted by schools in order to meet the Office of TASC's Standards for Providers[1] including ensuring that internal assessments are fair, equitable and comparable.

Providers can use the Assessment Documentation: Self-Evaluation Toolkit for Teachers[2] to check their plans for assessment, assessment tools and assessment records.

The Office of TASC have specific advice and requirements for the development of school-based scope and sequence documents. Please visit the TASC website[3] for more information.

Context statement

This scope and sequence was developed for a class of 20-25 learners in a 7-12 secondary college environment. Learners participated in 3 x 90-minute lessons per week. Learners have access to a device at school. The school has access to a local patch of remnant eucalypt community, along with river, agriculture, marine environments.

Course specific advice

Using microbiology as a unifying theme is only one example for delivering this course. This document is part of a set of baseline resources to support teachers to implement Transdisciplinary Science, TDS215122. Teachers are encouraged to view the accredited Course Document[4] and Course Implementation Guide[5] to assist them in developing their own scope and sequence for their specific context. A Community of Practice exits for this course, please visit our website[6] for more information.

[1] https://www.tasc.tas.gov.au/providers/quality-assurance/standards-for-providers/
[2] https://www.tasc.tas.gov.au/wp-content/uploads/2022/06/SelfEvaluation_AssessmentDocumentation.pdf
[3] https://www.tasc.tas.gov.au/
[4] https://www.tasc.tas.gov.au/students/courses/science/
[5] https://11and12.education.tas.gov.au/learning-areas/science/
[6] https://11and12.education.tas.gov.au/communities-of-practice/

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
Term 1 - Week 1 Module 1 - Research, Trial and Plan	Research, Trial and Plan. Research / Introduction. Expectations and Engage in the Problem.	• Acknowledgment of Country. • Class agreements. • Outline of Scope and Sequence and 3 x Modules. • Outline the Inquiry Approval procedures for learners (see pp.7, 36 of Course Document). • Provide detailed Module learner guide with assessment requirements for learners. • Provide Logbook task to learners. • Establish structure of Logbook. • Define transdisciplinary[7] and consider the transdisciplinary nature of Science (pp.34 of Course Document). • Identify problems that could be addressed by Science (such as microbiology[8]) and the UN Sustainable Development Goals[9].	**Module 1 - Work Requirement 1 of 2 (Task 1)** Research, Trial and Plan - Logbook **Mode/Format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4 C5	All All All All All
Term 1 - Week 2 Module 1 - Research, Trial and Plan	Research, Trial and Plan. Safety and Ethics. Working in an effective, safe and ethical team and environment.	• Unpack teamwork skills and generate agreements and ways of working in teams. • Interpret the requirements to work safely in laboratory by considering WHS guidelines – working safely and risk management: » Identify hazards—find out what could cause harm. » Assess risks, if necessary—understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening. This step may not be necessary if you are dealing with a known risk with known controls. » Control risks – implement the most effective control measure that is reasonably practicable in the circumstances and ensure it remains effective over time. » Review hazards and control measures to ensure they are working as planned. » Risk assessment | Safe Work Australia[10]. • Explore how to use and plan using risk assess software[11]. • Interpret the ethics of scientific inquiry – medical, animal and cultural ethical guidelines: » DPIPWE Animal Research[12] » UTAS – About Human Research Ethics[13]	**Module 1 - Work Requirement 1 of 2 (Task 2)** Research, Trial and Plan - Logbook **Mode/Format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4 C5	All All All All All

[7] https://www.uu.nl/en/research/transdisciplinary-field-guide/get-started/what-is-transdisciplinary-research
[8] https://www.youtube.com/watch?v=MnJStAHi0zw
[9] https://www.youtube.com/watch?v=xVWHuJOmaEk
[10] https://www.safeworkaustralia.gov.au/safety-topic/managing-health-and-safety/identify-assess-and-control-hazards
[11] https://www.riskassess.com.au/
[12] https://dpipwe.tas.gov.au/biosecurity-tasmania/animal-biosecurity/animal-welfare/animal-research
[13] https://www.utas.edu.au/research-admin/research-integrity-and-ethics-unit-rieu/human-ethics/about-human-research-ethics

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
		» National Statement on Ethical Conduct in Human Research[14] » Advice on including First Nations Tasmanian content[15]. • Practical activity to plan, assess risk and conduct microbiology aseptic techniques: » Safety Document-Microbiology[16]. » Biological hazards[17]. • Reflect upon requirements to conducting investigations safely and ethically. Review the hazards and the control measures to assess if they were working as planned.					
Term 1 - Week 3 Module 1 - Research, Trial and Plan	Research, Trial and Plan. Sustainability Issues. Field Trip and Analysis.	• Learners will go on whole class excursion to experience the sustainability issues in our local community. • Consider the following issues (Climate change, Threatened and vulnerable species, Waste, Soil, Remnant vegetation, Agriculture – environmental degradation, Land clearing, Water quality, pollution etc.). • The transdisciplinary nature of the problems being investigated will be drawn out (e.g. Chemistry, Cell Biology, Earth Science, Microbiology, Physics, Astronomy, Soil science, Botany, Zoology, Ecology, Engineering, Statistics, Environmental Science, Materials Science, Food Science, Agricultural Science, Crop Science, Marine Science, Biochemistry, Biotechnology, Climate Science). • Primary Data will be gathered from various sites (dependent on the sites chosen to visit; based on the focus of the learners (e.g. Soil, Climate, Water, Forests, Insects etc). • Some practical resources: » Teacher Guides - Soil Science Australia[18] » Soil Macromorphology - Microbiology Resource Center[19] » Teach Climate Science[20] » Resources[21] » Find a Resource[22] » Insects at school - Entomology Australia[23] • Data will be collated and analysed and relationships between ideas elicited.	**Module 1 - Work Requirement 1 of 2 (Task 3)** Research, Trial and Plan - Logbook **Mode/Format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4 C5	All All All All All

[14] https://www.nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018
[15] https://www.education.tas.gov.au/parents-carers/school-colleges/aboriginal-education-services/
[16] https://www.biotek.com.au/assets/Uploads/Safety-Document-Microbiology.pdf
[17] https://www.safeworkaustralia.gov.au/system/files/documents/1702/nhews_biologicalmaterials.pdf
[18] https://www.soilscienceaustralia.org.au/training/soils-in-schools/teacher-guides/
[19] https://www.tmcc.edu/microbiology-resource-center/lab-protocols/soil-macromorphology
[20] https://www.priweb.org/science-education-programs-and-resources/teach-climate-science#IRabsCO2
[21] https://nswwaterwatch.org.au/resources
[22] https://www.forestlearning.edu.au/find-a-resource.html
[23] https://entomology.edu.au/resources/insects-school

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
		• Learners will reflect on the possible problems for them to investigate and select a question and identify disciplines and stakeholders for approaching this question. • Peer-checking and feedback and whole class discussion to consider what is possible and further develop and refine ideas.					
Term 1 - Week 4 Module 1 - Research, Trial and Plan	Research, Trial and Plan. Sustainability Issues. Research of Secondary sources + Planning trial. Microbiology link to bigger transdisciplinary problem being investigated.	• Research of secondary sources of possible methods/protocols to design trial inquiry. • Note taking in logbook. • Annotated bibliography of sources. • Design of experiment, identification of variables, control treatment (refer to Inquiry Project approvals procedures pp.36 of Course Document). • Identify the type of data to collect, materials and chemicals required. • Outline the protocol to follow, see possible microbiological protocols: » Lab Protocols - Microbiology Resource Center[24] » Practical Microbiology for Secondary Schools[25]) • Identification of risks, consideration of ethical issues and planning for these. • Order form of equipment. • Peer review and feedback about trial protocol plans. • Refining of plans. • Conversation with lab technician. • Self-Reflect on learning.	**Module 1 - Work Requirement 1 of 2 (Task 4)** Research, Trial and Plan - Logbook **Mode/Format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4 C5	All All All All All
Term 1 - Week 5 Module 1 - Research, Trial and Plan	Research, Trial and Plan. Sustainability Issues. Research of Secondary sources – Contexts.	• Research secondary sources about the local, national and international contexts of the question. • Learners will complete note taking using different methods (mind mapping, Cornell notes and layout/bullet method) in logbook. • Annotated bibliography of key sources related to their issue. • Provide feedback to others, seek feedback. • Reflection in logbook to evaluate note taking process and to determine next steps.	**Module 1 - Work Requirement 1 of 2 (Task 5)** Research, Trial and Plan - Logbook **Mode/Format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4 C5	All All All All All
Term 1 - Week 6	Research, Trial, Plan. Sustainability issues.	• Teacher (explicit teaching) lesson on data, types of data, how to collate, effective presentation, analysis of data.	**Module 1 - Work Requirement 1 of 2 (Task 6)**	Major	Yes	C1 C2	All All

[24] https://www.tmcc.edu/microbiology-resource-center/lab-protocols
[25] https://microbiologysociety.org/publication/education-outreach-resources/practical-microbiology-for-secondary-schools.html

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
Module 1 - Research, Trial and Plan	Initial Trial of microbiology experiment.	• Construct appropriate data tables. • Set up of experiment. • Documentation of set up. • Trial conducting – beginning set up and problem solving. • Refining set up. • Logging of thinking processes and any changes. • Provide feedback to others seek feedback. • Secondary Research to solve problems.	Research, Trial and Plan - Logbook **Mode/Format**: Investigation See the course document for more information.			C3 C4 C5	All All All
Term 1 - Week 7 Module 1 - Research, Trial and Plan	Research, Trial, Plan. Sustainability issues. Trial of microbiology experiment.	• Conducting trial, collecting data, evaluating data for reliability in logbook. • Refining set up. • Logging of thinking processes and any changes. • Provide feedback to others seek feedback. • Secondary Research to solve problems.	**Module 1 - Work Requirement 1 of 2 (Task 7)** Research, Trial and Plan - Logbook **Mode/Format**: Investigation See the course document for more information.	Major	Yes	C1 C2 C3 C4 C5	All All All All All
Term 1 - Week 8 Module 1 - Research, Trial and Plan	Research, Trial, Plan. Sustainability issues. Final Trials of microbiology experiment.	• Trials conducted. • Refining set up. • Data collation, presentation, analysis & evaluation. • Logging of thinking processes and any changes. • Secondary Research to solve problems. • Reflection on inquiry process. • Provide feedback to others, seek feedback.	**Module 1 - Work Requirement 1 of 2 (Task 8)** Research, Trial and Plan - Logbook **Mode/Format**: Investigation See the course document for more information.	Major	Yes	C1 C2 C3 C4 C5	All All All All All
Term 1 - Week 9 Module 1 - Research, Trial and Plan	Research and Plan. Experimental Research Outline. Creation/collation of Experimental Research Outline.	• A justified inquiry question of a Sustainability problem with a transdisciplinary approach. • A background research summary with reference to scientific disciplines applied. • An annotated bibliography of relevant sources. • An experimental proposal – design outlined. • A summary of trials of experimental design for their extended inquiry. • Analysis and evaluation of simple relationships within data collected. • A future focus of experiments including a plan for Module 2: » Draft due to teacher at the end of the last lesson for feedback. » The Experimental Research Outline will need to meet the Inquiry Project Approval Procedures p36 from the Course Document.	**Module 1 - Work Requirement 2 of 2 (Task 1)** Research, Trial and Plan - Research and plan **Mode/format**: Investigation See the course document for more information.	Major	Yes	C2 C3 C4 C5 C6	All All All All All

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
Term 1 - Week 10 Module 1 - Research, Trial and Plan	Research and Plan. Experimental Research Outline. Final drafting of Experimental Research Outline.	• Reflect on feedback from teacher to refine Experimental Research Outline. • Complete Experimental Research Outline. • Submit Final Draft of Research Outline. • Submit and have a conversation with Laboratory Technician to organise equipment for beginning of Conducting phase in Week 2 of Term 2.	**Module 1 - Work Requirement 2 of 2 (Task 2)** Research, Trial and Plan - Research and plan **Mode/format**: Investigation See the course document for more information.	Major	Yes	C2 C3 C4 C5 C6	All All All All All
Term 2 - Week 1 Module 1 - Research, Trial and Plan	Research, Trial, Plan. Local or National Stakeholder views. Guest speaker's presentation of multiple views on sustainability and climate change.	• Creation of questions to elicit the views of a variety of stakeholders and to see help from experts to solve their problems. • Zoom meetings with experts and variety of stakeholders about their point of view and knowledge around issues of relevance for learner's inquiry. • Learners to collate and summarise points of view and knowledge from these people. • Reflection on learning and the significance of ideas; planning what next/things to consider as a result.					
Term 2 – Week 2 Module 2 – Conduct, Monitor and Refine	Conduct, Monitor and Refine. Conducting. Learner working in small groups to conduct investigation: • Staggered start - other groups will continue to engage with Guest speaker's presentation of multiple views on sustainability and climate change.	• Teacher - provide detailed Module learner guide with assessment requirements for learners. • Learners follow safe and ethical guidelines to conduct investigation and generate data. • Learners monitor the data and reflect on the method, reliability of the data, errors and refine the procedure that they will follow. • Research multiple sources and refine the procedure. • Logging progress, research notes, relationships, evaluation, planning, observations and data, time on task, peer and self-assessment. • Work with mentor to seek guidance and reflect on progress. Or: • Creation of questions to elicit the views of a variety of stakeholders and to see help from experts to solve their problems. • Zoom meetings with experts and variety of stakeholders about their point of view and knowledge around issues of relevance for learner's inquiry. • Learners to collate and summarise points of view and knowledge from these people. • Reflection on learning and the significance of ideas; planning what next/things to consider as a result.	**Module 2 - Work Requirement 1 of 2 (Task 1)** Conduct, Monitor and Refine - Logbook **Mode/format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4	All All All All

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
Term 2 – Week 3 to 8 Module 2 – Conduct, Monitor and Refine	Conduct, Monitor and Refine. Conducting. Learner working in small groups to conduct investigation This is a cyclical process for learners to conduct, reflect, refine, plan and repeat (with more replications or other disciplines or hypothesises to be considered); it will require continual negotiation with laboratory technician to develop equipment/protocols as focus changes.	• Conduct Science Inquiry. • Reflect on learning and inquiry process/protocol/generated data/problem solving with questions: » What happened? » Create a graph to show results more clearly if appropriate. » Are there any trends, patterns or relationships evident from your results? » What to the results tell you about your original question and hypothesis? » In what ways was the result different from your prediction? » Were there any unexpected results? Why do you think these occurred? » What do other stakeholders; points of view; secondary sources suggest about the reasons for findings? » In other contexts, collaborations, how does this compare? » How could technology further develop findings? » What does this make you think about the problem being investigated? » Are the results reliable? Are there any errors (systematic or random)? » Using scientific ideas try to explain the observable results. » What improvements might you make to your experimental design? » What are further things that could be investigated? • Teacher as resource to assist in probing questions and guiding problem solving. • Research secondary sources for possible solutions to problems. • Seek peer feedback. • Refine understanding and inquiry process. • Make adjustments to protocol. • Self and peer - evaluation of progress against a checklist from the Work requirements from Module 2 and Module 3. • Plan for next week negotiation with group members, mentor, teacher and laboratory technician. • Documenting these above processes in the logbook.	**Module 2 - Work Requirement 1 of 2 (Task 2)** Conduct, Monitor and Refine - Logbook **Mode/format**: Investigation See the course document for more information.	Major	Yes	C1 C2 C3 C4 C5	All All All All All
Term 2 – Week 9 Module 2 – Conduct, Monitor and Refine	Conduct, Monitor and Refine. Quad chart. Oral Presentation and Module 3 Plan. Planning & drafting Quad chart.	• Outline the finalised inquiry question. • Finalise the method/protocol. • Represent the results. • Draw conclusions so far with reference to scientific disciplines applied. • Seeking and providing feedback to/from peers and teacher. • Self-reflection of learning and evaluation of progress in logbook.	**Module 2 - Work Requirement 1 of 2 (Task 3)** Conduct, Monitor and Refine - Logbook **Mode/format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4 C5	All All All All All

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
Term 2 – Week 10 Module 2 – Conduct, Monitor and Refine	Conduct, Monitor and Refine. Quad chart. Oral Presentation and Module 3 Plan. Creating Quad chart and Drafting Oral.	• Outline the finalised inquiry question. • Finalise the method/protocol. • Represent the results. • Draw conclusions so far with reference to scientific disciplines applied. • Create Quad Chart using software. • Practice a 60 second outline of investigation so far. • Provide feedback and seek feedback on effective oral presentation. • Drafting of Oral presentation. • Practice of 5-minute presentation.	**Module 2 - Work Requirement 2 of 2 (Task 1)** Conduct, Monitor and Refine **Mode/format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4 C5 C7	All All All All All All
Term 3 – Week 1 Module 2 – Conduct, Monitor and Refine	Conduct, Monitor and Refine. Quad chart. Oral Presentation and Module 3 Plan. Practicing of Oral presentation of Quad Chart and Creation of Module 3 Plan.	• Reflect on the progress of the investigation (What have you learned? What are your struggles? What is working well? How can you improve? What should be your next steps?). • Seek feedback from teacher and mentor about reflection. • Decide on the final inquiry phase for module 3 and create a detailed plan for Module 3 and outline: Time allocated for analysis, evaluation and communication & a summary of relationships with the local, national and global context so far.	**Module 2 - Work Requirement 2 of 2 (Task 2)** Conduct, Monitor and Refine **Mode/format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4 C5 C7	All All All All All All
Term 3 – Week 2 Module 2 – Conduct, Monitor and Refine	Conduct, Monitor and Refine. Quad chart. Oral Presentation and Module 3 Plan. Presentation of Quad chart and submission of Module 3 Plan.	• Rehearsal practice of oral presentation. • Seek and provide feedback to others about presentation. • Reflection and action upon feedback. • Final drafting of Module 3 Plan and Quad chart. • Presentation of 5-minute recordings or live presentations of Quad chart. • Submit Module 3 plan.	**Module 2 - Work Requirement 2 of 2 (Task 3)** Conduct, Monitor and Refine **Mode/format**: Investigation See the course document for more information.	Major	Yes	C1 C2 C3 C4 C5 C7	All All All All All All
Term 3 – Week 3 Module 3 – Review, represent and recommend	Inquiry Logbook. Evaluation of science inquiry progress. Reflection and Next steps.	• Reflect on feedback from module 2. • Provide detailed Module 3 learner guide with assessment requirements for learners. • Evaluate scientific inquiry (What am I trying to find out? What have I found out so far? What do I need to still investigate? What questions will I need to leave to investigate later or put in the parking lot? What is working well? What can I improve on? What does the research say about possible opportunities?). • Planning final phase of investigation (Final questions and methods to be refined). • Negotiation with teacher, laboratory technician, group members etc to clarify roles, tasks and responsibilities. • Begin to conduct final phase of the inquiry over 2 and ½ weeks.	**Module 3 - Work Requirement 1 of 3 (Task 1)** Review, Represent and Recommend - Logbook **Mode/format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4	All All All All

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
Term 3 – Week 4 Module 3 – Review, represent and recommend	Final Conducting and refining phase. Generating and refining data. Experimenting.	• Conduct investigation to fill in gaps of data gathered or to repeat or revise design • Collecting and organising data • Reflecting on learning each lesson; prioritising tasks and planning next steps • Seeking feedback from peers and teachers about progress.	**Module 3 - Work Requirement 1 of 3 (Task 2)** Review, Represent and Recommend - Logbook **Mode/format**: Investigation See the course document for more information.	Minor	Yes	C1 C2 C3 C4	All All All All
Term 3 – Week 5 Module 3 – Review, represent and recommend	Final Conducting and refining phase. Generating and refining data. Experimenting.	• Conduct investigation to fill in gaps of data gathered or to repeat or revise design • Collecting and organising data • Reflecting on learning each lesson; prioritising tasks and planning next steps • Seeking feedback from peers and teachers about progress • Drawing together findings; collating ideas and reflection on inquiry process about what has been learned.	**Module 3 - Work Requirement 1 of 3 (Task 3)** Review, Represent and Recommend - Logbook **Mode/format**: Investigation See the course document for more information.	Major	Yes	C1 C2 C3 C4	All All All All
Term 3 – Week 6 Module 3 – Review, represent and recommend	Inquiry Folio. Scientific paper. Introduction, Materials, Method, Risk assessment and Ethical considerations.	• Research the broader context of the investigation and how it can be applied scientifically and take notes in logbook. • Seek and provide feedback to others. • Reflect on the significance of the research for stakeholders in the in broad context of the situation being investigated in logbook. • Evaluate the reliability of the research for bias and reliability. • Summarise the research from different scales (local, national and global) and how it is applied. • Outline the context of the investigation, locally, nationally and globally and draw out the relationships between technology, science and the broader community for a particular scientific application. • Outline the materials, method, risk assessment and ethical considerations from the investigation.	**Module 3 - Work Requirement 2 of 3 (Task 1)** Review, Represent and Recommend - Scientific paper **Mode/format**: Folio See the course document for more information.	Major	Yes	C1 C3 C4 C5 C8	All All All All All
Term 3 – Week 7 Module 3 – Review, represent and recommend	Inquiry Folio. Scientific paper. Representation and analysis of data.	• Teacher (explicit teaching): outline of effective communication of data as graphs, tables, diagrams etc. • Teacher to provide models for learners to evaluate for effectiveness. • Select and create the most appropriate mode for communication of raw data generated by investigation • Analysis of trends, patterns. • Evaluation of the data for reliability; sources of error (systematic and random).	**Module 3 - Work Requirement 2 of 3 (Task 2)** Review, Represent and Recommend - Scientific paper **Mode/format**: Folio See the course document for more information.	Major	Yes	C1 C3 C4 C5 C8	All All All All All

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
		• Consideration of how these errors could be minimised to improve design of the investigation. • Consideration of science ideas and theories that could explain these patterns in the data.					
Term 3 – Week 8 Module 3 – Review, represent and recommend	Inquiry Folio Scientific Paper Writing Discussion, Recommendations, Conclusion, Acknowledgements and Finalise Reference list.	• Explicit teaching to outline for learners the tools of effective scientific writing of discussion – how to reference diagrams and sources; how to structure paragraphs (CER framework); how to assess and evaluate the data. • Refine skills and knowledge about Referencing both in text and creating an effective reference list. • Make recommendations for further questions to research and the broader application of the research. • Conclusion needs to be a summary and link to hypothesis. • Brainstorm assistance from people to make sure that all who assisted are acknowledged.	**Module 3 - Work Requirement 2 of 3 (Task 3)** Review, Represent and Recommend - Scientific paper **Mode/format**: Folio See the course document for more information.	Major	Yes	C1 C3 C4 C5 C8	All All All All All
Term 3 – Week 9 Module 3 – Review, represent and recommend	Inquiry Folio. Writing Abstract and Drafting process of scientific paper.	• Direct teaching about the purpose of an abstract. • Learner evaluation of model abstracts for effectiveness. • Write abstract. • Feedback sought from and provided to peers. • Feedback sought from teacher and mentor.	**Module 3 - Work Requirement 2 of 3 (Task 4)** Review, Represent and Recommend - Scientific paper **Mode/format**: Folio See the course document for more information.	Major	Yes	C1 C3 C4 C5 C8	All All All All All
Term 3 – Week 10 Module 3 – Review, represent and recommend	Inquiry Folio/Final drafting process and submission/Learners are to finalise scientific paper.	• Learners refine and act on feedback from peers, staff and mentor/critical friends. • Learners can submit scientific paper into competitions.	**Module 3 - Work Requirement 2 of 3 (Task 5)** Review, Represent and Recommend - Scientific paper **Mode/format**: Folio See the course document for more information.	Major	Yes	C1 C3 C4 C5 C8	All All All All All
Term 4 – Week 1 Module 3 – Review, represent and recommend	Performance/Produce A1 poster and 10 minute recorded or live presentation/Poster design.	• Direct teaching - Outline scientific conventions for poster communication. • Teacher to showcase effective design of poster; learners to evaluate model posters for effective communication. • Develop skills in software to be able to make the poster. • Create a draft plan for layout of poster (headings, subheadings, images, diagrams, graphs, and white space) in logbook.	**Module 3 - Work Requirement 3 of 3 (Task 1)** Review, Represent and Recommend – Poster and presentation **Mode/format**: Performance or presentation See the course document for more information.	Major	Yes	C4 C5 C8	All All All
Term 4 – Week 2	Performance/Produce A1 poster and 10 minute recorded or live presentation/Poster making.	• Refine poster design based on feedback from peers and staff. • Create poster using software program.	**Module 3 - Work Requirement 3 of 3 (Task 2)**	Major	Yes	C4 C5 C8	All All All

Time / Module	Mapping to course content	Example learning activity	Assessment Task	Relative Weighting	Work Requirement	Criterion	Criterion Elements
Module 3 – Review, represent and recommend			Review, Represent and Recommend – Poster and presentation **Mode/format**: Performance or presentation See the course document for more information.				
Term 4 – Week 3 Module 3 – Review, represent and recommend	Performance. Produce A1 poster and 10 minute recorded or live presentation. 10-minute presentation planning and practice of skills.	• Outline effective oral science communication skills. • Evaluate a model of scientific communication for effectiveness of communication (pace, eye contact, engagement, tone of voice, reference to scientific data etc.). • Practice – 60 seconds pitch summary of the investigation on the spot. • Seek and provide feedback on skills to practice in logbook. • Outline of requirements for presentation. • Practice responding to typical questions that might be asked. • Seek and provide feedback to each other on responses to questions in logbook.	**Module 3 - Work Requirement 3 of 3 (Task 3)** Review, Represent and Recommend – Poster and presentation **Mode/format**: Performance or presentation See the course document for more information.	Major	Yes	C4 C5 C8	All All All
Term 4 – Week 4 Module 3 – Review, represent and recommend	Performance. Produce A1 poster and 10 minute recorded or live presentation. 10-minute presentation drafting and practice.	• Create script of presentation. • Seek feedback from mentor, staff and peers. • Practice recording of presentation. • Seek feedback from mentor, staff and peers. • Provide feedback to peers.	**Module 3 - Work Requirement 3 of 3 (Task 4)** Review, Represent and Recommend – Poster and presentation **Mode/format**: Performance or presentation See the course document for more information.	Major	Yes	C4 C5 C8	All All All
Term 4 – Week 5 **Exams**							

CONTACT	years9-12learning@decyp.tas.gov.au
VERSION	Version 2 – January 2023
REVIEW BY DATE	December 2024
THIS DOCUMENT REPLACED	Version 1