



EDCU12040 *Biological and Earth and Space Sciences*

Term 1 - 2024

Profile information current as at 15/05/2024 09:25 pm

All details in this unit profile for EDCU12040 have been officially approved by CQUUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

Biological and Earth and Space Sciences develops understanding of both the content and pedagogy required to teach Science in Primary and Early Childhood classrooms. Students are introduced to concepts around how children learn Science; the importance of Science education in an Australian and international context; and current views around effective pedagogical practice linked to research. The focus on pedagogy will be linked to two content areas from the Australian Curriculum: Biological sciences and Earth and Space sciences.

Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 7

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

There are no requisites for this unit.

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

Offerings For Term 1 - 2024

- Bundaberg
- Mackay
- Online
- Rockhampton

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

[Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

[Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Presentation**

Weighting: 50%

2. **Practical and Written Assessment**

Weighting: 50%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the [CQUniversity Policy site](#).

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Moodle, Zoom

Feedback

Moodle course

Recommendation

Update Moodle content with more practical and usable examples to help with future teaching, particularly in the Early Childhood area.

Feedback from Unit evaluations

Feedback

Assessments

Recommendation

Revise assessments to aid with clarity and to align to the updated curriculum.

Feedback from Moodle, Zoom

Feedback

Updated Science curriculum

Recommendation

Continue to align content with the new Australian Science Curriculum

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Evaluate examples of teaching practice in science to identify how connections are made to students' prior knowledge or experience to promote learning and inform pedagogical practice
2. Access/evaluate and apply professional literature on contemporary science education to develop a rationale for learning design
3. Analyse and incorporate content that recognises the experience of Aboriginal and Torres Strait Islander students in the science classroom
4. Select teaching and learning strategies that promote higher order thinking and scaffold students' understanding of core concepts in the areas of Biological and Earth and Space sciences
5. Create learning resources in which learner engagement is transformed by the use of ICT for collaboration and inquiry.

Successful completion of this unit provides opportunities for students to engage with the Australian Professional Standards for Teachers (Graduate Career Stage) focus areas of:

- 1.1 Physical, social and intellectual development and characteristics of students
- 1.2 Understand how students learn
- 1.4 Strategies for teaching Aboriginal and Torres Strait Islander students
- 2.1 Content and teaching strategies of the teaching area
- 2.2 Content selection and organisation
- 2.6 Information and Communication Technology (ICT)
- 3.3 Use teaching strategies
- 3.4 Select and use resources
- 4.1 Support student participation

Alignment of Learning Outcomes, Assessment and Graduate Attributes

 N/A Level	 Introductory Level	 Intermediate Level	 Graduate Level	 Professional Level	 Advanced Level
---	--	--	--	--	--

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Presentation - 50%	•	•	•		
2 - Practical and Written Assessment - 50%		•		•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•			•
2 - Problem Solving			•	•	•
3 - Critical Thinking	•	•	•	•	•
4 - Information Literacy	•	•	•	•	
5 - Team Work					
6 - Information Technology Competence				•	•
7 - Cross Cultural Competence	•		•		
8 - Ethical practice					
9 - Social Innovation					
10 - Aboriginal and Torres Strait Islander Cultures					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Presentation - 50%	•	•	•	•		•	•			
2 - Practical and Written Assessment - 50%	•	•	•	•		•	•			

Textbooks and Resources

Textbooks

EDCU12040

Prescribed

Science in Early Childhood

Fourth edition (2021)

Authors: Campbell, C., Jobling, W. & Howitt, C.

Cambridge university press

Melbourne , Victoria , Australia

ISBN: 978 1 108 81196 5

Binding: eBook

FDCU12040

Prescribed

Teaching Primary Science Constructively

7th Edition (2020)

Authors: Skamp, K. & Preseton, C.

Cengage

Melbourne , Victoria , Australia

ISBN: 9780170443401

Binding: Paperback

Additional Textbook Information

All Bachelor of Education (Primary) students will need a copy of the Skamp and Preston textbook, while Bachelor of Education (Early Childhood) students will only need the Campbell, Joblin & Howitt textbook. Both textbooks will also be used in EDCU13017 as core texts for this subject as well.

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: [American Psychological Association 7th Edition \(APA 7th edition\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Daren Mallett Unit Coordinator

d.mallett@cqu.edu.au

Schedule

Week 1 - 04 Mar 2024

Module/Topic

Chapter

Events and Submissions/Topic

Theoretical frameworks for teaching science and the Australian Curriculum	<p>Preston, C., Mules, M., Baker, D., & Frost, K. (2007). Teaching primary science constructively: Experiences of pre-service teachers at Macquarie University: Teaching Science, 52(4), 12-16.</p> <p>Baldwin, J. L., Adams, S. M., & Kelly, M. K. (2009). Science at the Center: An Emergent, Standards-Based, Child-Centered Framework for Early Learners. Early Childhood Education Journal, 37(1), 71-77.</p> <p>https://doi.org/10.1007/s10643-009-0318-z</p> <p>EY Reading</p> <p>Campbell, C. (2023). Chapter 4: Learning theories related to early childhood science education. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p> <p>Primary Reading</p> <p>Skamp, K., & Preston, C. (2021). Chapter 1 – Primary science: every teacher, every child. In K. Skamp & C. Preston. (Eds.) Teaching primary science constructively. (7th Ed., pp. 2-34) Cengage Learning Australia.</p>
---	--

Week 2 - 11 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
The Australian Curriculum (Science)	<p>Conezio, & French, L. (2002). Science in the preschool classroom: Capitalizing on children's fascination with the everyday world to foster language and literacy development. Young Children, 57(5), 12-18.</p> <p>Primary Years Reading</p> <p>Skamp, K. (2021). Chapter 3a – Primary science: every teacher, every child. In K. Skamp & C. Preston. (Eds.) Teaching primary science constructively. (7th Ed., pp. 84-112) Cengage Learning Australia.</p> <p>Early Years Reading</p> <p>Nolan, A. (2023). Chapter 2: Identifying the science in early childhood policy documentation. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p>	Start thinking about a peer that you may like to work with throughout this unit.

Week 3 - 18 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic

Curriculum design: The anatomy of a science unit	<p>Siry, C., & Max, C. (2013). The Collective Construction of a Science Unit: Framing Curricula as Emergent From Kindergarteners' Wonderings: Collective construction of a science unit. Science Education (Salem, Mass.), 97(6), 878-902. https://doi.org/10.1002/sce.21076</p> <p>Early Years Reading Howitt, C. & Jobling, W. (2023). Chapter 14: Planning for teaching science in the early years. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p> <p>Primary Years Reading Skamp, K. (2021). Chapter 3b – Primary science: every teacher, every child. In K. Skamp & C. Preston. (Eds.) Teaching primary science constructively. (7th Ed., pp. 112-141) Cengage Learning Australia.</p>	
Week 4 - 25 Mar 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Engaging learning in Science - Wonderings, inquiry and authentic science learning.	<p>Hesterman, S. & Hunter, N. (2023). Chapter 9: Science learning through play. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p> <p>Early Years Reading Chealuck, K. & Campbell, C. (2023). Chapter 6: Scientific inquiry in the early years. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p> <p>Primary Years Reading Bell, R. L., Smetana, L., & Binns, I. (2005). Simplifying inquiry instruction. The science teacher, 72(7), 30-33.</p>	AT1 due next week
Week 5 - 01 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Science and the cross-curriculum priorities	<p>Early Years Reading Chealuck, K. & Campbell, C. (2023). Chapter 8: Indigenous ways of knowing in science. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p> <p>Primary Years Reading Hackling, M., Byrne, M., Gower, G., & Anderson, K. (2015). A pedagogical model for engaging aboriginal children with science learning. Teaching Science, 61(1), 27-39. https://doi.org/10.3316/aeipt.206558</p>	<p>AT1 Due: Friday 5th April 2024 at 11:55 PM (AEST)</p> <p>Inquiry video Due: Week 5 Friday (5 Apr 2024) 11:55 pm AEST</p>
Vacation Week - 08 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Week 6 - 15 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic

Teaching Biological Sciences	<p>Curtis, D., & Carter, M. (2013). Chapter 7 – Study session: Observing how children connect with the natural world. In D. Curtis and M. Carter. (Eds.). The art of awareness how observation can transform your teaching (2nd ed.). Redleaf Press.</p> <p>Early Years Reading Campbell, C. & Speldewinde, C. (2023). Chapter 13: Science learning through the environment. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p> <p>Primary Years Reading Tytler, R., Haslam, F., White, P. & Peterson, S. (2021). Living things and environments. In K. Skamp & C. Preston. (Eds.) Teaching primary science constructively. (7th Ed., pp. 327-383) Cengage Learning Australia.</p>
------------------------------	---

Week 7 - 22 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Learning sciences from the world around you	<p>Early Years Reading Howitt, C. & Campbell, C. (2023). Chapter 12: Science learning through informal experiences. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p> <p>Primary Years Reading Jobling, W. (2021). Chapter 9 –Living things: a technologies context. In K. Skamp & C. Preston. (Eds.) Teaching primary science constructively. (7th Ed., pp. 112-141) Cengage Learning Australia.</p>	

Week 8 - 29 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Teaching Science Outside	<p>Early Years Reading Campbell, C. & Chealuck, K. (2023). Chapter 5: Approaches to enhance science learning. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press.</p> <p>Primary Years Reading Helen Porter. (2018). Chapter 7: Science outdoors. In H. Porter (Ed.) . Educating Outside : Curriculum-linked Outdoor Learning Ideas for Primary Teachers. Bloomsbury Education.</p>	

Week 9 - 06 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Teaching Earth and Space Sciences

Skamp, K. (2021). Chapter 12 – Our place in space. In K. Skamp & C. Preston. (Eds.) Teaching primary science constructively. (7th Ed., pp. 522-574) Cengage Learning Australia.

Cartier, J. L., Smith, M. S., Stein, M. K., & Ross, D. K. (2013). Chapter 5: Encouraging and guiding student thinking. In J.L. Cartier., L. Smith., M.K. Stein and D.K. Ross (Eds.), 5 practices for orchestrating productive task-based discussions in science. National Council of Teachers of Mathematics.

Week 10 - 13 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Teaching about our planet	Early Years Reading Ashbrook, P. (2020). The Early Years: Earth & Space Science for Young Learners. Science and Children, 58(2), 12-13.	
	Primary Years Reading Preston, C. (2021). Chapter 13 –Our planet Earth. In K. Skamp & C. Preston. (Eds.) Teaching primary science constructively. (7th Ed., pp. 626-669) Cengage Learning Australia.	

Week 11 - 20 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Digital tools in science teaching.	Fizzics Education. (N.D.) 13 quick ways to integrate technology into a primary science lesson. https://www.fizzicseducation.com.au/articles/13-quick-ways-to-integrate-technology-in-a-primary-science-lesson/ Early Years Reading Preston, C. (2023). Chapter 11: STEM education in early childhood. In C. Campbell, W.M. Jobling and C. Howitt (Eds.). Science in Early Childhood (4th edition.). Cambridge University Press. Primary Years Reading Preston, C. (2021). Chapter 14 – Weather and our environment. In K. Skamp & C. Preston. (Eds.) Teaching primary science constructively. (7th Ed., pp. 575-625) Cengage Learning Australia.	AT2 due next week.

Week 12 - 27 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Unit review and consolidation	No readings or E-Book	AT2 Due week 12, Thursday 30th May, 11:55 PM (AEST) Interactive e-book/booklet Due: Week 12 Thursday (30 May 2024) 11:55 pm AEST

Review/Exam Week - 03 Jun 2024

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Exam Week - 10 Jun 2024

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Term Specific Information

This year, we are moving to two textbooks for both this subject and EDCU13017.

All **Early Years' Pre-service teachers** should aim to get a copy of the following text. You will be using a chapter from the primary years' textbook as well, however you do not need to purchase this, if you do not wish to. You will be able to access the Primary e-Text for both textbooks via the CQ University Library catalogue.

Early Years Textbook

Campbell, C., Jobling, W. M., & Howitt, C. (Eds.). (2023). *Science in Early Childhood* (5th edition.). Cambridge University Press.

Primary Textbook (Only primary trained pre-service teachers will need access to this text)

Skamp, K., & Preston, C. (2021). *Teaching Primary Science Constructively* (7th ed.). Cengage.

Assessment Tasks

1 Inquiry video

Assessment Type

Presentation

Task Description

Assessment 1 - Inquiry video

Weighting: 50%

Due: Friday 5th April 2024 at 11:45 PM (AEST)

Task description: Your job is to create a short series of small videos guiding your future students through the steps of an authentic scientific inquiry of your choosing. These lessons need to align to either the Biological or Earth and space science curriculum. In this lesson/s, you will teach at least one aspect of scientific inquiry (e.g. questioning, making predictions, etc.). In Part B, you will then provide a justification of your lessons and the pedagogical approach you have used in your lesson/s, showing an understanding of the theoretical underpinnings of this approach in a practical sense. Your lesson/s must also include content that recognises the experiences of Aboriginal and Torres Strait Islander students in the science classroom and could draw from a range of pedagogical approaches that could be used are given in the list below.

Pedagogical approaches (You can use one, or a combination of the below as appropriate):

- **Play-based science learning.** A range of pedagogical approaches discussed in the Early Years Learning Framework (V.2.0) uses an emergent curriculum and the environment as another teacher. Drawing from your lessons, present a researched argument to support the claim that play-based learning is beneficial to developing deeper, authentic science understandings in today's early childhood science classrooms. You are encouraged to use drawings, sketches, or photos of centers as part of your presentation to help elaborate on the kinds of learning experiences that the students will encounter.
- The world is complex and ever-changing – each day what counts as knowledge is challenged by new knowledge and process considerations. Using your selected mini unit outline, present a researched argument to support the claim that **authentic guided inquiry-based learning** is the keystone to developing deeper science understandings in today's science classrooms.
- Drawing from your lessons, discuss and justify how you can teach science authentically by applying **STEM or STEAM-integrated lessons**. In your discussion, you should show why STEM or STEAM education is becoming increasingly important in Schools.
- Communicating science using **narrative** techniques can be valuable and enhance children's engagement. Drawing from your teaching mini units explain and justify how narrative and storytelling can be used to add richness to children's learning in the mini units you have selected. Be sure that you make links to research to justify your position.

You required to submit your script/s (doesn't have to match word for word) for your clearly labeled presentations as a word, PowerPoint or PDF document (which will have a cover page with your name, student number, ECHO360 link, and also a reference list at the bottom) along with an accessible link to your video and the PowerPoint presentation.

Assessment Due Date

Week 5 Friday (5 Apr 2024) 11:55 pm AEST

You need to make sure you are submitting an accessible ECHO360 video link/s which you will access inside your Moodle Assessment submission page as well as a transcript of your videos as either a Word, PDF or PowerPoint file.

Return Date to Students

Your task will be returned once moderation has occurred and in time so that you can apply the feedback to your next assignment.

Weighting

50%

Assessment Criteria

Quality of content for a chosen science education pedagogical approach (from the research topics list) using authoritative sources such as journal articles.

Ability to practically incorporate findings from research topic and make clear connections with your teaching as discussed in your lessons.

Demonstrated practical knowledge and understanding of the Australian Curriculum (Science).

Demonstrated knowledge and understanding of the Aboriginal and Torres Strait Islander Histories and Cultures general capability as given in the Australian Curriculum and its relevance to the research topic and mini unit.

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Learning Outcomes Assessed

- Evaluate examples of teaching practice in science to identify how connections are made to students' prior knowledge or experience to promote learning and inform pedagogical practice
- Access/evaluate and apply professional literature on contemporary science education to develop a rationale for learning design
- Analyse and incorporate content that recognises the experience of Aboriginal and Torres Strait Islander students in the science classroom

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence

2 Interactive e-book/booklet

Assessment Type

Practical and Written Assessment

Task Description

Assessment 2 - Interactive e-book / booklet

Weighting: 50%

Due: Friday 24th May 2024 at 11:55 PM (AEST)

Word limit: 3000 words

Task Description:

Your task is to create a science e-book or booklet to share with other educators who are learning the new version 9.0 of the curriculum and who might be using pedagogies that do not align with an inquiry-based, constructivist approach to learning. This booklet will include a range of biological or Earth and space science experiences with digital or printable task cards that the teacher can use to help them deliver science in small groups. At least one lesson/task must engage the students in learning outside. As part of the booklet, you will then draw from the unit's readings, the Australian Curriculum, Science (V.9.0), and your own research to critically assess your lessons and this learning in science. The result will be a booklet or digital e-book/booklet (your choice) that you can give a teacher to help them teach a specific biological **or** Earth and space sciences descriptor to a year level of your choosing.

There are three components to this task is given below by way of a scaffold.

Part A: Introduction, overview, lessons and task cards

In your introduction, you will provide a context for using the task cards, lessons and pedagogical approaches used. Your task cards should be clear and easy to follow and use language appropriate to the grade level you will be teaching. These task cards act as a scaffold to help guide student thinking and work. If you are teaching in an Early Childhood setting, you are also encouraged to draw from the Early Years Learning Framework V.2.0.

Design lesson plans (At least three) describing how you will engage with the groups as the teacher in helping the

students understand the scientific phenomena they are engaging with. Your lessons should be in point form and be clearly linked to the pedagogical approaches you have discussed in Part B. You will need to incorporate digital tools to help support learning and enhance learner engagement.

An example of the task cards activities could be as follows:

- Create a small drama showing the interactions between animals and plants in a natural environment.
- Create an animation of the life of a plant or animal.
- Using a magnifying glass, your iPad or the digital microscope, complete a labelled digital poster outlining the parts of a leaf, plant or insect.
- Create your own ecosystem in a jar or box, allowing an insect to survive.
- Record the changes to an ecosystem over time and predict how these changes will impact the life of the plant or animal living in that ecosystem.
- Design and build a herb garden that you can use at home, using recycled materials and potting mix, which your teacher will provide.
- Create an illustrated storyboard on the life of a plant or animal.

Part B: Critical self/peer assessment of your lessons and of your pedagogical approaches

1. Draw from the literature to assess your lessons and the pedagogical approaches to teaching this subject outdoors. You are required to draw from the course readings, the Australian Curriculum and other high-quality literature in this section.
2. Ask a peer or another teacher to provide feedback on your lessons, ways you might improve them, and what you have done well.
3. Provide a discussion on how you have responded to your peer's feedback.

You can work collaboratively to make your lessons, and your partner can provide feedback as you create your lessons. However, you need to note their suggestions here and how you responded to them. Your entire assignment should be in your own words. Any feedback received should be inserted as a quote. e.g. You might have decided to go outside to investigate how animals adapt and survive in their ecosystem. Your partner/peer may then provide a suggestion to use Merge Cubes as well to help your students understand these animals better. You would then insert their suggestion as quotes and write how you incorporated their advice or otherwise into your lessons.

Assessment Due Date

Week 12 Thursday (30 May 2024) 11:55 pm AEST

Return Date to Students

Your task will be returned once moderation has occurred.

Weighting

50%

Assessment Criteria

- Selection and appropriate use of teaching strategies and resources that support the processes of working scientifically.
- Design and technical functionality of the task cards that will assist and guide student learning.
- Ability to access, understand and apply high quality research and the Australian Curriculum to future teaching.
- Utilised digital tools to help support learning and enhance learner engagement.

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Learning Outcomes Assessed

- Access/evaluate and apply professional literature on contemporary science education to develop a rationale for learning design
- Select teaching and learning strategies that promote higher order thinking and scaffold students' understanding of core concepts in the areas of Biological and Earth and Space sciences
- Create learning resources in which learner engagement is transformed by the use of ICT for collaboration and inquiry.

Graduate Attributes

- Communication

- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

**Be Honest**

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

**Seek Help**

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

**Produce Original Work**

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem