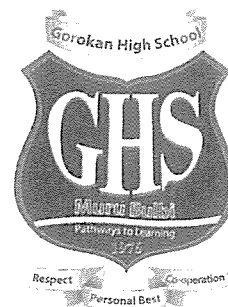


Assessment Task Notification

RESPECT | RESPONSIBILITY | PERSONAL BEST



Faculty: Science	Course: Stage 4 Science	Time allowed: 4 Weeks
Teacher: Mesina	Email: frank.mesina@det.nsw.edu.au	
Task number: 2	Title: Research Task	
Year: 8	Due date: 12 September 25	Weighting: 30%

Syllabus outcomes assessed:

- SC4-2VA** shows a willingness to engage in finding solutions to science-related personal, social and global issues, including shaping sustainable futures
- SC4-3VA** demonstrates confidence in making reasoned, evidence-based decisions about the current and future use and influence of science and technology, including ethical consideration
- SC4-7WS** processes and analyses data from a first-hand investigation and secondary sources to identify trends, patterns and relationships, and draw conclusions
- SC4-9WS** presents science ideas, findings and information to a given audience using appropriate scientific language, text types and representations
- SC4-15LW** explains how new biological evidence changes people's understanding of the world

21st Century and employment related skills:

☒	Communication	☒	Use of technology
☒	Critical Thinking	☒	Self-reflection and refinement
☒	Creativity	☐	Problem Solving
☐	Collaboration	☐	Initiative and Enterprise
☒	Planning and Organising	☐	Cross-Cultural Understanding

Task description:

Students choose an introduced species and complete the questions, which form a research task. In this task, students will need to not only answer the questions, but provide at least one picture of the chosen species, as well as provide a bibliography to outline where students got their information from. Students need to present their information in a report format – they can choose how they would like to do this (they could use Word, PowerPoint, Prezi, Canva or any other platform of their choosing).

Assessment criteria:

You will be assessed on your ability to: See attached criteria

Method of task submission:

In class experiment Friday 12 September 2025 (Friday, Week 9)

Marking guidelines:

Grade	Descriptor	Mark
A		
B		
C		
D		
E		
N (Stages 5 and 6)		

Introduced species and their impact on ecosystems

The arrival of Europeans to the continent in 1788 also contributed to the evolution of flora in Australia. Agricultural practices that were brought over by Europeans made significant changes in plant life. Even though First Nations Peoples managed to live off the plants and animals native to the continent, the British who arrived thought the land was too barren and the climate too hostile to supply them with an adequate amount of food. The settlers knew they could not sustain themselves solely on imported goods because it took eight months to cross the ocean from England to Australia. The ships of the First Fleet, led by Captain Arthur Phillip, brought over livestock, plants and seeds to ensure the survival of the British settlers. Since that time, many more species have been introduced to Australia, both deliberately and accidentally.

Your task:

You will choose an introduced species and complete the questions, which form a research task. In this task, you will need to not only answer the questions, but provide at least one picture of your chosen species, as well as provide a bibliography to outline where you got your information from.

You need to present your information in a report format – you can choose how you would like to do this (you could use Word, PowerPoint, Prezi, Canva or any other platform of your choosing).

Your teacher can assist with the formatting of your report.

Use this document as a draft for your final report – this draft needs to be submitted as a part of your final presentation.

How many species have been introduced to Australia since 1788? (7WS – 1 mark)

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What makes a species be classed as 'invasive'? (7WS – 1 mark)

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You now need to choose an introduced species in Australia. It can be either a plant or animal (speak with your teacher if you need some assistance with making a choice).

What is its common name? (7WS – 1 mark).....

List its scientific classification (Kingdom -> species) (7WS – 2 marks)

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What is its binomial name? (7WS – 1 mark).....

Outline the way in which it was introduced (was it accidental or deliberate?). Explain why or how it was introduced (15LW 5 d – 2 marks)

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Explain the terms *distribution* and *abundance*. Include a map to show the distribution and abundance of your chosen species (7WS – 3 marks)

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What does your chosen species eat? (if you chose an animal). Is it classed as a herbivore, omnivore or carnivore? If you chose a plant, is it taking over native plants? Which plant(s) is it replacing in the Australian ecosystem and how is it spreading? (15LW 5 b – 2 marks)

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Draw one food chain involving your species (15LW 5 a – 2 marks)

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What impact does your chosen species have on the ecosystem? (7WS – 2 marks)

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Is your chosen species classed as 'invasive'? Why/why not? (7WS – 2 marks)

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Introduced species often cause problems for the ecosystem that they are in. Often, control methods are used to limit the number of organisms and reduce the impact on ecosystems.

What kind of control method/s are used to reduce the number of your chosen species in the environment? (SC4-2VA – 2 marks)

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How does the control method work? (SC4-2VA – 2 marks)

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When using control methods, ethics needs to be considered. Ethics basically deals with decision making and whether it is the right or wrong thing to do. What are some of the ethical issues associated with the control methods used for your chosen species? (SC4-3VA – 2 marks)

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What are some alternatives that could be used to control the numbers of your species? (SC4-2VA -2 marks)

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Outline plans being made for the future of these species – are there newer methods of control being researched? Are there government funding/initiatives to remove these species from our environment? (SC4-2VA – 2 marks)

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Conclusion: now that you have researched the impact of an invasive species, outline your thoughts about their place in ecosystems. Should their numbers be controlled, or should they be left alone? Do you agree with the control methods being used? Justify your response (SC4-3VA – 3 marks)

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Some useful sites to help find information:

<https://invasives.org.au/> (Invasive Species Council website – has lists of invasive species)

https://en.wikipedia.org/wiki/List_of_invasive_species_in_Australia (list of more notable invasive species, includes plant as well as all classes of animal)

<https://www.dcceew.gov.au/sites/default/files/documents/invasive.pdf> (document with outline about invasive species)

<https://theconversation.com/invasive-predators-are-eating-the-worlds-animals-to-extinction-and-the-worst-is-close-to-home-64741> (Invasive predators)

<https://theconversation.com/compassionate-conservation-just-because-we-love-invasive-animals-doesnt-mean-we-should-protect-them-144945> (Compassionate conservation) - good for ethics section

<https://theconversation.com/when-introduced-species-are-cute-and-loveable-culling-them-is-a-tricky-proposition-130471> (Public perception) - good for ethics section

<https://www.dcceew.gov.au/environment/invasive-species> (Government website for invasive species)

Year 8 Research Task Marking Rubric

Table description: shaded rows are band descriptors from NESA and non-shaded rows are the task descriptors

Outcomes and content	Grade A	Grade B	Grade C	Grade D	Grade E
Critical thinking skills (19 marks)	uses critical thinking skills to evaluate trends, patterns and relationships to draw evidence-based scientific conclusions	uses critical thinking skills to evaluate trends, patterns and relationships to draw scientific conclusions	explains trends, patterns and relationships to draw scientific conclusions	describes trends, patterns and draws some conclusions	recounts conclusions
SC4 – 2VA (8) SC4 – 3VA (5) 15LW 5 a, b, d (6)	Extensive understanding and evaluation of: - the issues associated with finding solutions to the problems of introduced species - ethical considerations about introduced species - finding solutions to conserving and managing ecosystems	Thorough understanding and evaluation of: - the issues associated with finding solutions to the problems of introduced species - ethical considerations about introduced species - finding solutions to conserving and managing ecosystems	Sound understanding and evaluation of: - the issues associated with finding solutions to the problems of introduced species - ethical considerations about introduced species - finding solutions to conserving and managing ecosystems	Limited understanding and evaluation of: - the issues associated with finding solutions to the problems of introduced species - ethical considerations about introduced species - finding solutions to conserving and managing ecosystems	Basic understanding and evaluation of: - the issues associated with finding solutions to the problems of introduced species - ethical considerations about introduced species - finding solutions to conserving and managing ecosystems
Processing data (13 marks) 7WS	effectively gathers, selects, organises and processes first-hand and secondary sourced data and information to evaluate issues and inform creative solutions using appropriate digital technologies	systematically gathers, selects, organises and processes first-hand and secondary sourced data and information to explain issues and inform problem-solving using appropriate digital technologies	gathers and selects first-hand and secondary sourced data and information to identify issues and participate in problem-solving using appropriate digital technologies	uses first-hand and secondary sourced data and information, and appropriate digital technologies, to assist in the problem-solving process	uses information provided and, with assistance, participates in problem-solving activities

	Demonstrates an extensive understanding of the:	Demonstrates a thorough understanding of the:	Demonstrates sound understanding of the:	Demonstrates a basic understanding of the:	Demonstrates a limited understanding of the:
	- scientific knowledge of chosen species - distribution and abundance of chosen species - impact of the chosen species on the ecosystem - classification of impact and reason why	- scientific knowledge of chosen species - distribution and abundance of chosen species - impact of the chosen species on the ecosystem - classification of impact and reason why	- scientific knowledge of chosen species - distribution and abundance of chosen species - impact of the chosen species on the ecosystem - classification of impact and reason why	- scientific knowledge of chosen species - distribution and abundance of chosen species - impact of the chosen species on the ecosystem - classification of impact and reason why	- scientific knowledge of chosen species - distribution and abundance of chosen species - impact of the chosen species on the ecosystem - classification of impact and reason why
Communication (15 marks) 9WS	communicates comprehensive understanding of scientific ideas, and related evidence for a particular purpose and audience using scientific units, language conventions and text types	communicates well-developed understanding of scientific ideas to an audience using scientific units and language conventions	communicates sound understanding of scientific ideas to an audience	communicates basic scientific understanding to an audience	with guidance, communicates elementary scientific information to an audience
Overall presentation	- all questions answered comprehensively - extensive use of scientific language throughout report - no spelling mistakes - at least 1 picture and a map included - bibliography included (5 or more sources)	- all questions answered thoroughly - thorough use of scientific language throughout report - one spelling mistake - at least 1 picture and a map included - bibliography included (4 sources)	- most questions answered - sound use of scientific language throughout report - 2 or more spelling mistakes - at least 1 picture included - bibliography included (3 sources)	- some questions answered - basic use of scientific language throughout report - multiple spelling mistakes - at least 1 picture included - bibliography included (1-2 sources)	- few questions answered - limited use of scientific language throughout report - many spelling mistakes - no picture or map included - no bibliography included

Critical thinking skills =

/19

Processing data =

/13

Communication =

/15

Total =

/47

Teacher comment:

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