



JOHN EDMONDSON HIGH SCHOOL

Assessment Notification

Faculty: Social Science	Course: Geography	Year: 9
Assessment Task: BIOME'S RESEARCH TASK		
Assessment Weighting: 50%	Due: Term 1 Week 11	Date: 06/04/2023
Task Type:	<input checked="" type="checkbox"/> Hand in Task <input type="checkbox"/> In Class Task <input type="checkbox"/> Practical Task	
Outcomes Assessed (NESA)		
GE5-2 - explains processes and influences that form and transform places and environments GE5-3 - analyses the effect of interactions and connections between people, places and environments GE5-5 - assesses management strategies for places and environments for their sustainability GE5-7 - acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-8 - communicates geographical information to a range of audiences using a variety of strategies		
Task Description/Overview		
<p>In this project, students are to research how to achieve food security for the world without destroying its biomes. Students are expected to work in groups of two or three.</p> <p>To help students complete their project they must fill out their project management log. If a group's project management log demonstrates a lack of interaction with the task the student will not receive marks for the group work.</p> <p>You will be given SEVEN lessons in class to work on this project. You will also be required to work on the task at home.</p> <p>NOTE:</p> <ul style="list-style-type: none">● Some parts of this assessment task will be completed in class; however, this is an assessment and some of it will need to be completed at home.● If this assessment task is submitted late 10% will be lost per day for up to 3 days. After the 3rd day, a mark of ZERO will be awarded.● In cases of plagiarism, the section will be given 0%.		

Satisfactory completion of courses

A course has been satisfactorily completed when the student has:

- Followed the course developed/endorsed by the NSW Educational Standards Authority (NESA)
- Applied himself/herself with diligence and sustained effort to the set tasks and experiences provided in the course.
- Achieved some or all of the course outcomes

Name: _____

Year 9 Geography

Sustainable Biomes



Biome's Research Task

Assessment Due: Week 11 Term 1

2:40pm 6th April 2023

Assessment Weighting: 50%

Marks Available: 75



The Big Biome Problem

National Geographic defines a biome as “a large community of vegetation and wildlife adapted to a specific climate. There are five major types of biomes: aquatic, grassland, forest, desert, and tundra.”

These biomes are not ecosystems. An ecosystem is one specific place such as the Daintree Rainforest, a biome is the definition of all forests around the world. Biomes can also be divided into even more specific categories, for example, forests can be further categorised into rainforests and taiga.

So, what’s the problem?

The big biome problem is humans. Human cities, human farms, human pollution. These actions are destroying biomes, and this is having a huge effect on the world. The World Wildlife Foundation (WWF) and the Zoological Society of London have reported that global populations of mammals, birds, fish, amphibians and reptiles have dropped by 68% since 1970!

THE PROJECT

In this project, students are to work in groups of **two or three** to research and figure out a way to achieve food security for the Australia without destroying its biomes.

PART A: (35 Marks)

They will choose one biome within Australia to research and will investigate if **agriculture** is having a negative environmental effect on the biome. They will also identify any challenges Australia is currently facing in regard to sustainable food production. A bibliography is also required.

PART B: (20 Marks)

Students will investigate technological factors that are making agriculture more sustainable/successful. Students will compare the benefits and disadvantages of Organic Farming **VS** Genetically Modified Farming practices to determine which is more beneficial when applied to ONE specific crop that can be produced in their chosen Biome from PART A. A bibliography is also required.

PART C: (20 Marks)

Students must then create a presentation for the Australian Government that delivers a final recommendation for how Australia should approach food production in the future to ensure its food security. A bibliography is also required.

To help students complete their project they **must** fill out their project management log. **If a group's project management log demonstrates a lack of interaction with the task the student will not receive marks for the group work.**

NOTE:

- Some parts of this assessment task will be completed in class; however, this is an assessment and it must be completed at home.
- If this assessment task is submitted late 10% will be lost per day.
- In cases of plagiarism, the section will be given 0.

GROUP MEMBERS:

PART A: Investigate an Australian Biome:

[TOTAL 30 Marks]

Question 1:

What is the name of the biome?

(1 Mark)

Question 2:

Where in Australia can the biome be found?

(1 Mark)



Question 3:

(2 Marks)

Identify the *climatic conditions* of the biome.

Question 4:

(4 Marks)

Describe the *flora* and *fauna* which can be found in the biome.

Question 5:

(4 Marks)

Outline the *foods and fibres* (eg. Cotton) that are produced by Australian farmers in this biome.

<u>FOODS</u>	<u>FIBRES</u>

Question 6:

(8 Marks)

Create a *climate graph* that represents your biomes typical conditions.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average rainfall (mm)												
Average temperature (°C)												

Climate graph for

Average rainfall (mm)

Average temperature (°C)

Month

Average rainfall (mm)
 Average temperature (°C)

PART A BIBLIOGRAPHY:

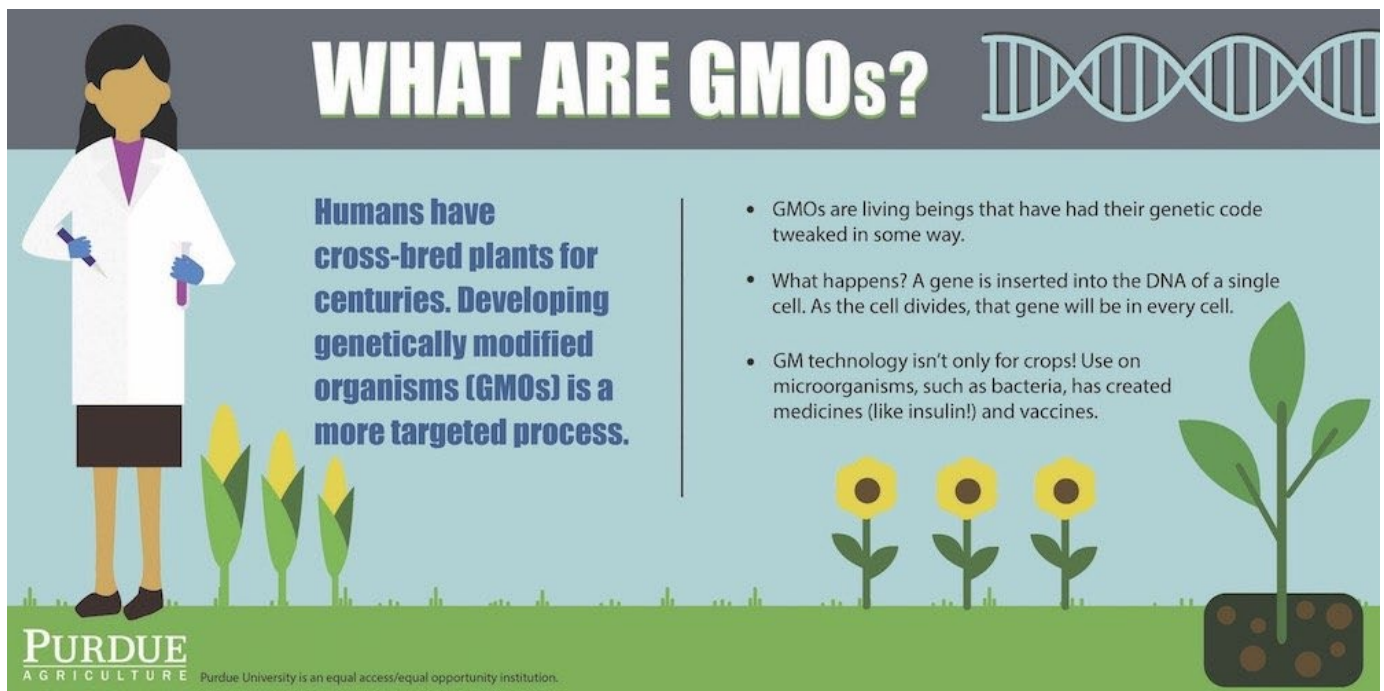
(5 Marks)

Provide a HARVARD style reference list showing the websites/sources you used to find the information required to complete Part A.

You should Include at LEAST 3 sources.

<https://www.citethisforme.com/> is a useful tool to help you create your bibliography.

<i>Name of website/source</i>	HARVARD REFERENCE
Eg. John Edmondson High School Website	Edmondson, J. (no date) <i>John Edmondson high school, John Edmondson High School - John Edmondson High School</i> . Department of Education NSW. Available at: https://jedmondson-h.schools.nsw.gov.au/ (Accessed: February 17, 2023).



Utilise the website

<https://www.foodstandards.gov.au/consumer/gmfood/Documents/GM%20Foods%20in%20Australia%20and%20New%20Zealand.pdf>

to investigate what Genetically Modified (GMO) Foods are available in Australia.

Research whether any of the available GMO foods can be grown in your chosen biome. If not, find out what GMO foods are approved for sale in other countries that grow in your chosen Biome.

Fill out the table below using information on your chosen crop/food product that can be produced in your biome (even if it is not approved for the GMO version to be sold in Australia right now).

CROP: _____

	Organic	Genetically Modified
Characteristics: -Size -Shape -Flavour/taste -Colour		
How is it grown?		
How vulnerable is it to changes in weather/climate?		
What pests is it vulnerable to?		
What does it cost to produce this crop? (this may be an estimate)		
How much does the crop currently sell for? (If the GMO crop is not available in Australia, provide the cost in a country where it is sold).		
Are there any concerns with this farming the crop this way?		

PART B BIBLIOGRAPHY:

(5 Marks)

Provide a HARVARD style reference list showing the websites/sources you used to find the information required to complete Part B.

You should Include at LEAST 3 sources.

<https://www.citethisforme.com/> is a useful tool to help you create your bibliography.

<i>Name of website/source</i>	HARVARD REFERENCE
<i>Eg. John Edmondson High School Website</i>	Edmondson, J. (no date) <i>John Edmondson high school, John Edmondson High School - John Edmondson High School</i> . Department of Education NSW. Available at: https://jedmondson-h.schools.nsw.gov.au/ (Accessed: February 17, 2023).

PART C: Multimodal Presentation

(15 Marks)



Create a presentation for the Australian Government that delivers a final recommendation for how Australia should approach food production in the future to ensure its food security.

In your presentation, you should:

- Provide discussion of your chosen biome including any issues created by agriculture and what foods/fibres can be produced within it. *Utilise your information from Part A for this section.*
- Evaluate the role that both Genetically Modified and Organic farming processes should have in the future of Australian food production. Suggest which method should be prioritised to ensure Australia's food security and why. *Utilise your information from Part B for this section.*
- Produce an example of an advertisement which could be used to encourage Australians to support the farming method your group has chosen to prioritise.

Your presentation must contain a minimum of 10 slides.

You may use PowerPoint, Google Slides, CANVA or other appropriate programs to create your presentation. It should contain visual, written and audio components. You must also produce a bibliography containing all sources used to complete this section.

PART C BIBLIOGRAPHY:

(5 Marks)

Provide a HARVARD style reference list showing the websites/sources you used to find the information required to complete Part B.

You should Include at LEAST 3 sources.

<https://www.citethisforme.com/> is a useful tool to help you create your bibliography.

<i>Name of website/source</i>	HARVARD REFERENCE
<i>Eg. John Edmondson High School Website</i>	Edmondson, J. (no date) <i>John Edmondson high school, John Edmondson High School - John Edmondson High School</i> . Department of Education NSW. Available at: https://jedmondson-h.schools.nsw.gov.au/ (Accessed: February 17, 2023).

Your presentation and bibliography must be submitted via Canvas by 2:40pm on 6th April 2023.

Part A and Part B must be submitted via Canvas or in person by 2:40pm on 6th April 2023.

Use this Project Management Log to keep track of each group members contributions to

the task. Remember, this log will be carefully considered when assigning marks to each group member.

PROJECT MANAGEMENT LOG: TEAM TASKS

MEMBERS OF TEAM:

DATE	TASK	TEAM MEMBER	NOTES	COMPLETE/ NON-COMPLETE

Please sign below to acknowledge that you understand that if a group's project management log demonstrates a lack of interaction with the task the student will not receive marks for the group work.

Team Member 1 Full Name: _____ Signature: _____

Team Member 2 Full Name: _____ Signature: _____

Team member 3 Full Name: _____ Signature: _____

Teacher Signature: _____

Marking Criteria Part A

Question 1

-Correctly identifies an Australian Biome	1
-Does not identify a biome OR identifies a biome that does not occur in Australia	0

Question 2

-Outlines the location of at least two examples of the biome in Australia, either on the map or in writing below the map.	1
-Does not identify a location OR -Identifies the location of a single ecosystem rather than the biome.	0

Question 3

-Identifies the average temperature range and rainfall for the Australian biome.	2
-Makes a comment on either the temperature or amount of rainfall experienced by the biome.	1
-No comment on the climate of the biome OR and inaccurate comment that does not demonstrate of the biome.	0

Question 4

-Accurately identifies and describes the adaptations of at least one example of flora and one example of fauna native to the Australian biome.	4
-Accurately identifies and describes the adaptations of either one example of flora OR one example of fauna native to the Australian biome. Or -Accurately identifies an example of flora and fauna native to the Australian biome and describes an adaptation of either the flora or fauna.	3
-Accurately identifies an example of flora and fauna native to the Australian biome. Or -Accurately identifies and describes an adaptation of EITHER an example of flora or fauna native to the Australian biome.	2
-Identifies an example of either flora or fauna native to the biome.	1

Question 5

<p>-Outlines at LEAST 2 examples of food products and 2 examples of fibres that can be produced by farmers in the Australian Biome.</p>	<p>4</p>
<p>-Outlines at LEAST 2 examples of food products and 1 example of a fibre that can be produced by farmers in the Australian Biome. OR -Outlines 2 examples of fibres and 1 example of a food product that can be produced by farmers in the Australian Biome.</p>	<p>3</p>
<p>-Outlines an example of a food product and a fibre that can be produced by farmers in the Australian Biome. OR -Outlines 2 examples of food products that can be produced by farmers in the Australian Biome. OR -Outlines 2 examples of fibres that can be produced by farmers in the Australian Biome.</p>	<p>2</p>
<p>-Outlines an example of EITHER a food product or a fibre that can be produced in a grassland biome.</p>	<p>1</p>

Question 6

A climate graph should be provided that represents their chosen biome. For example:

One mark is awarded for each of the following:

- A title for the climate graph that indicates the biome	/1
- An accurate spread of average temperatures for the biome in the Southern Hemisphere (demonstrates understanding of Summer and Winter seasons) recorded in the temperature row of their climate table.	/1
- An accurate spread of average rainfall levels for the biome in the Southern Hemisphere (demonstrates understanding of Wet and Dry seasons) recorded in the temperature row of their climate table.	/1
- A labelled rainfall axis, utilising an appropriate unit of increase for the data.	/1
- A labelled temperature axis, utilising an appropriate unit of increase for the data.	/1
- An accurate bar graph showing monthly average rainfall levels.	/1
- An accurate line graph showing monthly average temperatures.	/1
- Appropriate use of colours, BLUE for the rainfall bar graph and RED for the temperature line graph.	/1
TOTAL	/8

Question 7

-Provides a detailed discussion of the ways agriculture impacts upon their specific biome -Makes comments specific to the Australian biome. -Utilises appropriate paragraph style following P.E.E.L or other appropriate writing structure. -Includes accurate and relevant evidence from statistics and/or quotes -Communicates ideas using appropriate course terms and concepts	4-5
-Provides a description of some ways agriculture impacts upon their specific biome -May make comments specific to the Australian biome. -Attempts to use appropriate paragraph style following P.E.E.L or other appropriate writing structure. -Includes evidence from statistics and/or quotes which may or may not be relevant -Attempts to communicate ideas using appropriate course terms and concepts	2-3
-Outlines how agriculture interacts with the biome, may or may not be accurate. -Response lacks structure and makes minimal use of course terms and/or concepts.	1
-Not attempted or irrelevant response.	0

Question 8:

<ul style="list-style-type: none"> -Provides a detailed explanation of the challenges farmers face when producing food and fibres within the biome -Makes comments specific to the Australian biome. -Utilises appropriate paragraph style following P.E.E.L or other appropriate writing structure. -Communicates ideas using appropriate course terms and concepts. 	4-5
<ul style="list-style-type: none"> -Provides a description of the challenges farmers face when producing food and/or fibres within the biome -May make comments specific to the Australian biome. -Attempts to use appropriate paragraph style following P.E.E.L or other appropriate writing structure. -Attempts to communicate ideas using appropriate course terms and concepts. 	2-3
<ul style="list-style-type: none"> -Outlines how farmers produce food and/or fibres within the biome. -Response lacks structure and makes minimal use of course terms and/or concepts. 	1
<ul style="list-style-type: none"> -Not attempted or irrelevant response. 	0

PART A FEEDBACK:

Area of strength:

Area to improve:

Strategies for next time:

BIBLIOGRAPHY PART A:

Criteria	Mark
<ul style="list-style-type: none">• Evidence of thorough research.• Bibliography of at least 4 resources used in appropriate format.	5
<ul style="list-style-type: none">• Evidence of some research.• Bibliography of at least 3 resources used in appropriate format.	4
<ul style="list-style-type: none">• Evidence of basic research.• Bibliography of at least 3 resources used, with some format.	3
<ul style="list-style-type: none">• Limited research evident.• Bibliography of only 1 or 2 resources.	1-2
<ul style="list-style-type: none">• No bibliography provided	0

Marking Criteria Part B

Research whether any of the available GMO foods can be grown in your chosen biome. If not, find out what GMO foods are approved for sale in other countries that grow in your chosen Biome.

Fill out the table below using information on your chosen crop/food product that can be produced in your biome (even if it is not approved for the GMO version to be sold in Australia right now).

Identifies a relevant crop that can be produced in their chosen biome and is Genetically Modified in some part of the world.	/1	
CRITERIA	Organic	Genetically Modified
Provides an accurate comment on the characteristics of the crop including: -Size -Shape -Flavour/taste -Colour	/1	/1
Provides an accurate comment on how the crop is grown.	/1	/1
Provides an accurate comment on the vulnerability of the crop to changes in weather/climate?	/1	/1
Provides an accurate comment on the pests the crop is vulnerable to?	/1	/1
Provides a relevant comment on the cost incurred to grow the crop that accurately reflects the different government certification requirements.	/1	/1
Provides an accurate comment on how much the crop currently sells for? (If the GMO crop is not available in Australia, provide the cost in a country where it is sold).	/1	/1
Provides an accurate comment on the concerns governments or other agencies may have with farming the crop this way.	/1	/1
TOTAL	/15	

PART B FEEDBACK:

Area of strength:

Area to improve:

Strategies for next time:

BIBLIOGRAPHY PART B:

Criteria	Mark
<ul style="list-style-type: none">• Evidence of thorough research.• Bibliography of at least 4 resources used in appropriate format.	5
<ul style="list-style-type: none">• Evidence of some research.• Bibliography of at least 3 resources used in appropriate format.	4
<ul style="list-style-type: none">• Evidence of basic research.• Bibliography of at least 3 resources used, with some format.	3
<ul style="list-style-type: none">• Limited research evident.• Bibliography of only 1 or 2 resources.	1-2
<ul style="list-style-type: none">• No bibliography provided	0

Marking Criteria Part C

Criteria	Marks
<ul style="list-style-type: none"> - Provides comprehensive information on their chosen biome including any issues created by agriculture and what foods/fibres can be produced within it. - Presents a sustained and coherent judgement on the role of Genetically Modified and Organic farming processes in the future of Australian food production and makes a comprehensive and sophisticated recommendation on whether Genetically Modified or Organic farming should be prioritised, giving clear reasoning for their decision. - Presentation is appropriately presented for target audience of Australian Government ministers. - Presents an engaging advertisement that utilises appropriate persuasive elements to encourage Australians to support their chosen farming method. - Presentation adheres to minimum 10 slide limit. - Effectively applies a range of appropriate course concepts and language. - Presents a sustained, logical, and well-structured response utilising appropriate multimedia format. 	13-15
<ul style="list-style-type: none"> - Provides detailed information on their chosen biome including any issues created by agriculture and what foods/fibres can be produced within it. - Presents a logical judgement on the role of Genetically Modified and Organic farming processes in the future of Australian food production. - Presents a detailed recommendation on whether Genetically Modified or Organic farming should be prioritised and gives clear reasoning for their decision. - Presentation is largely appropriately presented for target audience of Australian Government ministers. - Presents a somewhat engaging advertisement that uses persuasive elements to encourage Australians to support their chosen farming method. - Presentation adheres to minimum 10 slide limit. - Applies a range of appropriate course concepts and language. - Presents a well-structured response utilising appropriate multimedia format. 	10-12
<ul style="list-style-type: none"> - Provides sound information on their chosen biome including any issues created by agriculture and what foods/fibres can be produced within it. - Attempts some judgement of the role of Genetically Modified and Organic farming processes in the future of Australian food production and suggests whether Genetically Modified or Organic farming should be prioritised. Attempts to provide reasoning. - Presentation shows some consideration for target audience of Australian Government ministers. - Presents an advertisement that attempts to encourage Australians to support their chosen farming method. - Presentation is between 7 and 10 slides long. - Attempts to apply course concepts and language. - Presents a response utilising some multimedia format. 	7-9
<ul style="list-style-type: none"> - Provides basic information on their chosen biome, may include some issues created by agriculture and what foods/fibres can be produced within it. - Provides some information on Genetically Modified and Organic farming processes in relation to the future of Australian food production. - Presentation shows little consideration for target audience of Australian Government ministers. - May or may not present an advertisement relating to their chosen farming method. - Presentation is less than 7 slides long. - May or may not apply course concepts and language. - Presentation may or may not be in multimedia format. 	4-6
<ul style="list-style-type: none"> - Presentation demonstrates limited knowledge relating to food production in their chosen biome. - Presentation is less than 7 slides long. - May or may not include course specific language. - May include some element of a multimedia presentation. 	1-3

PART C FEEDBACK:

Area of strength:

Area to improve:

Strategies for next time:

BIBLIOGRAPHY PART C:

Criteria	Mark
<ul style="list-style-type: none">• Evidence of thorough research.• Bibliography of at least 4 resources used in appropriate format.	5
<ul style="list-style-type: none">• Evidence of some research.• Bibliography of at least 3 resources used in appropriate format.	4
<ul style="list-style-type: none">• Evidence of basic research.• Bibliography of at least 3 resources used, with some format.	3
<ul style="list-style-type: none">• Limited research evident.• Bibliography of only 1 or 2 resources.	1-2
<ul style="list-style-type: none">• No bibliography provided	0

