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**Year 12 Integrated Science**

**Task 1 - Unit 3: Estuarine Wetlands in Western Australia**

**Assessment type:** Extended Response

**Conditions:**

Time allocation for completion of the task:

* Research: three (3) x 60-minute class lessons (Part 1).
* Presentation: 5 minute class lesson (Part 2)

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| **Task Weighting:** | | **Task Mark:** | **Due Date:** | |
| 15% of the year mark. | **\_\_\_\_\_\_\_\_\_\_\_ / 56 marks %** | | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Estuarine Wetlands in Western Australia**

Western Australia’s unique and diverse wetlands are rich in ecological and cultural values and form an integral part of the natural environment of the state. Your local Creery Wetland Nature Reserve (CWNR) is listed as part of a system of ‘Wetland of International Importance’ under the Ramsar Convention.

**Task**

You will need to complete a research assignment on the CWNR and present a 5 minute presentation of your research using either of the following format:

* A PowerPoint presentation (no more than 10 slides),
* A video,
* An online interactive website,
* A poster (minimum size A3),
* Another medium if approved after discussion with the teacher.

**Part 1: Research Phase [35 marks]**

You will be provided nine (9) questions that you need to research. To support your research the following will be provided:

1. A notetaking template
2. A Fishbone template
3. A number of class lessons will be designed covering some questions
4. A document titled “An information sheet on Ramsar Wetlands” will be provided.
5. You need to access the internet for information; links you may like to include:

* <https://www.dpaw.wa.gov.au/management/wetlands>
* <https://www.environment.gov.au/water/wetlands/ramsar/criteria-identifying-wetlands>
* <https://www.environment.gov.au/water/wetlands/australian-wetlands-database/australian-ramsar-wetlands>
* <http://www.creerywetlands.info/>

Your notes should include:

* Be written in concise dot points in your own words
* Correctly include a bibliography **[5 marks]**

Include the following in your response: **[30 marks]**

1. Write a brief description of what is a wetland? (1 mark)
2. Define what the Ramsar Convention is and clarify why is it important? (2 marks)
3. Identify the name of the Ramsar site that the CWNR is part of? (1 mark)
4. Justify one reason of how the CWNR site meets one of the nine qualifying Ramsar criteria. (3 marks)
5. Wetlands have been mapped in some areas of Western Australia.
   1. Provide a map of the wetlands of Western Australia (include geographical coordinates and location of nearest or major town/city to wetland), and (2 marks)
   2. Provide a map of the Ramsar site that the CWNR is part of (include geographical coordinates and location of nearest town or major town/city). (2 marks)
6. Analyse some key features of the CWNR (biogeography, physical conditions, hydrological values, wetland type). (4 marks)
7. Use a Fishbone Template to classify noteworthy biotic factors (flora and fauna) that inhabit the CWNR. (6 marks)
8. Describe if the site has any social and/ or cultural values. (4 marks)
9. Analyse how the current land and water use activities within the Ramsar site and surrounding catchment are affecting the CWNR ecological character. (5 marks)

Your notes from the research phase **WILL** need to be submitted to your teacher during your final presentation.

**Part 2: Presentation Phase [21 marks]**

With the information you have collected through your research, produce a 5 minute presentation that will engage the viewer (your fellow peers). Your presentation must include information that answers the 9 questions above.

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|  | **Marks Allocated** | | |
| **Description** | **3.0** | **2.0** | **1.0** |
| Presentation of content   * PowerPoint * Video * Online website * Poster | 8-10 slides/sections included with key ideas linked to images and sources of information referenced. | 8-10 slides/sections included that shows organisation of ideas in each of the researched content areas. | 7 slides/sections included that is mainly text. |
| Content | Shows a full understanding of the topic | Shows a good understanding of the topic | Shows some understanding of the topic |
| Use of headings and sub-headings | All headings and subheadings used. | Some headings and subheadings used. | Some headings used |
| Delivery | Speaks with fluctuation in volume and inflection to emphasize key points. | Speaks with satisfactory variation of volume and inflection. | Speaks in uneven volume with little or no inflection. |
| Creativity | Creative use of fonts, transitions or animation function that includes a short embedded clip/s that have been produced by the student | Some attempt to use transitions or animation functions on PowerPoint. | Some relevant images used and an attempt made to use colour, smart art or different fonts. |
| Audience interest | Engaging and interesting all the way through. | Captured interest reasonably well. | Relevant information is included. |
| Engagement | High level of effort. | Satisfactory level of effort. | Little effort shown. |
| **Total** |  |  |  |
| **Overall total** | | | **/ 21**    **%** |

**Student Worksheet**

To support your research the following support has been provided:

1. A notetaking template
2. A Fishbone template
3. A number of class lessons will be designed covering some questions
4. A document titled “An information sheet on Ramsar Wetlands” will be provided
5. You will conduct a field trip to the site where you can read the signage provided
6. You need to access the internet for information; links you may like to include:

* [https://www.dpaw.wa.gov.au/management/wetlands](about:blank) and
* <https://www.dpaw.wa.gov.au/management/wetlands>
* <https://www.environment.gov.au/water/wetlands/australian-wetlands-database/australian-ramsar-wetlands>
* <http://www.creerywetlands.info/>

|  |  |
| --- | --- |
| **Note Taking Template** | **Mark** |
| 1. **Write a brief description of what are wetland?** | **[1]** |
| * **Definition:** |  |
| * **Other interesting points:**   Wetlands often include riparian zones (land which adjoins or directly influences a body of water) and coastal zones adjacent to the wetlands, as well as islands. |  |
| 1. **Define what the Ramsar Convention is clarify why is it important?** | **[1-2]** |
| * **Definition:** | **1** |
| * **Other interesting points:** | **1** |
| 1. **Identify the name of the Ramsar site that the CWNR is part of?** | **[1]** |
| * **Name** | **1** |
| 1. **Justify one reason of how the CWNR site meet one of the nine qualifying Ramsar criteria.** | **[1-3]** |
| * **Group letter and Group Name:** | **1** |
| * **Criterion number and definition:** | **2** |
| 1. **Wetlands have been mapped in some areas of Western Australia.**   **a). Provide a map of the wetlands of Western Australia (include geographical coordinates and location of nearest or major town/city to wetland) , and** | **[1-2]** |
| * **Latitude and Longitude:** | **1** |
| * **Towns/Cities** | **1** |
| **b). Provide a map of the Ramsar site that the CWNR is part of (include geographical coordinates and location of nearest town or major town/city).** | **[1-2]** |
| * **Latitude and Longitude:** | **1** |
| * **Towns/Cities** | **1** |
| 1. **Analyse some key features of the CWNR (biogeography, physical conditions, hydrological values, wetland type).** | **[1-4]** |
| * **Climate: Name and description** | **1** |
| * **Soil type: Name and description** | **1** |
| * **Wetland description** | **1** |
| * **Name of main rivers, channels artificial drainage that flow into the area** | **1** |
| 1. **Use the Fishbone template to classify noteworthy biotic factors (flora and fauna) that inhabit the CWNR.** | **[1-6]** |
| * **Flora \* WRITE ANSWER ON FISHBONE TEMPLATE \*** | **3** |
| * **Fauna \* WRITE ANSWER ON FISHBONE TEMPLATE\*** | **3** |
| 1. **Describe if the site has any social and/ or cultural values.** | **[1-4]** |
|  | **1** |
|  | **1** |
|  | **1** |
|  | **1** |
| 1. **Analyse how the current land and water use activities within the Ramsar site and surrounding catchment are affecting the CWNR ecological character.** | **[1-5]** |
|  | **1** |
|  | **1** |
|  | **1** |
|  | **1** |
|  | **1** |
| **Other noteworthy information** |  |
|  |  |
| * **Bibliography:**   *For example:*  *Art* + soul : a journey into the world of aboriginal *art* *2010, television program, Australian Broadcasting Corporation, Sydney, 4 October.*  *Centres for Disease Control and Prevention (1994) Epi Info (Version 6) [Computer program]. Available at*[*http://www.cdcp.com/download.html*](about:blank)*(Accessed: 23 June 2015).*  *Davidson, A. (2013) ‘The Saudi Marathon Man’, The New Yorker, 16 April. Available at: http://www.newyorker.com/news/daily-comment/the-saudi-marathon-man (Accessed: 22 June 2015).*  *Department of the Environment and Energy, 2019, accessed 1st January 2019, http://www.environment.gov.au/water/wetlands/about*  *Google Earth 6.0. 2008. Hylands House and estates 51°42'39.17"N, 0°26'11.30"W, elevation 60M. 3D Buildings data layer, viewed 31 August 2011,* [*http://www.google.com/earth/index.html*](about:blank)  *Gough, P 2017,* What makes art good or bad?*, video recording, Youtube, viewed 17 July 2017* [*https://www.youtube.com/watch?v=XNQVe4qgtx8*](about:blank)  *Jones, B., (1997) Methods in tumour research. National Agency for Tumour Research, volume. 7.*  *Ubisoft Entertainment 2012,*Assassins creed III*, computer program, Ubisoft Australia.*  *The University of Birmingham (2010) The University of Birmingham experience. Available at:*[*https://www.youtube.com/watch?v=YLxV5L6IaFA*](about:blank)*(Accessed: 18 June 2015).* |  |
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**STUDENT FISHBONE TEMPLATE** [6 marks]

