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| **Year 8 Science**  **Assessment Task 1: Conceptual Model 2024** |

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| **TOPIC**: Living World | **MARKS: /45** |
| **SUBMISSION REQUIREMENTS:**  **PART A:** 1 A4 poster uploaded to CANVAS.  **Part B:** Planning document, submitted in class.  **PART C:** No longer than a 5-minute Video uploaded to CANVAS.  ***Due:* Week 10 Wednesday 3rd April 2024 Submission by 3pm via CANVAS** |
| **Outcomes to be Assessed:**  **SC4 - 5WS** Collaboratively and individually produces a plan to **investigate** questions and problems.  **SC4 - 6WS** Follows a sequence of instructions to safely undertake a range of **investigation** types, collaboratively and individually.  **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. | |
| **DIRECTIONAL VERBS**   |  |  | | --- | --- | | **Investigate**  **Presents**  **Explains** | Plan, inquire into and draw conclusions about  To give something to someone formally or officially  Relate cause and effect; make the relationships between things evident; provide why and/or how. | | |
| **TASK DESCRIPTION:**  **Select an Organ System:**   * Circulatory System*: How substances move in and out of cells.* * RespiratorySystem*: How the diaphragm inflates the lungs.* * DigestiveSystem*: How stomach acid digests food.* * Muscular*/*SkeletalSystem*: How tendons make the hands grip.* * DigestiveSystem*: How the oesophagus uses peristalsis to transport food.* * DigestiveSystem*: How bile breaks down oils.* * *Or another that has been approved by your class teacher.*   **Part A: Written Report – Poster** *(Use template provide*)   * Research information regarding organ donation. * Present your information in the template provided, digitally. * Include a bibliography (on a separate page to the poster).   **Part B: Planning – Scientific Model** (*Use the template provided)*   * Construct a model of an organ from your organ system, showing its structure. * You must plan your model by sketching and annotating your diagram. * Explain the materials and features you will use. * Clearly label all parts of your model.   **Part C: Video – Scientific Model** (*No more than 5 minutes duration)*   * Video yourself explaining your model.   + Discuss:     - Organ function     - Limitations of the model   ***Upload to CANVAS: Submit the brochure, planning of your model and video to CANVAS for assessment.*** | |

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| **TASK CRITERIA**  **Part A: Written Report – Poster**   1. *Research information regarding organ donation.*   Your research should include:   * Define organ, and give an example. * Define tissue, and give an example. * What is organ and tissue donation? * List the organs that can be donated. * List the tissues that can be donated. * Identify and label each of the highlighted organism on the body diagram. * How many people need organ transplants in Australia? Provide ONE more Australian statistic about organ donation. * There are many myths and misconceptions around organ donation in Australia. State one such myth or misconception and discuss why it is in fact not true. * How many people can one organ donor potentially donate to? Why is it important to talk to your family if you decide to become an organ and tissue donor when you die?   In class you will watch the following clip from Donate Life Australia as the first step to your research: <https://www.youtube.com/watch?time_continue=98&v=woDTPQ5nOHY>  **Part B: Video of Scientific Model (Duration: Up to 5 minutes)**   1. *Construct a Model – Choose an organ from your researched organ system. Then build a model representing the structure of the organ system chosen in Part A.*   Ensure the model:   * Is Accurate: Reflects the real structure and function. * Is Labelled: Clearly label all parts of the model.  1. *Video Presentation: Record a video of yourself explaining the model.*   Your Video should include:   * **Model Features**: Discuss each part of the model and its significance. * **Model Limitations**: How does the model differ from the actual organ.   ***Upload to CANVAS: Submit both the poster and video to CANVAS for assessment.***  ***Submit your planning booklet to your teacher for assessment.*** |

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|  | | | **ASSESSMENT MARKING CRITERIA – PART A (Poster)** | | | | | | | | | |
| **Part A: *Written Report (Poster)* (SC4 - 9WS, SC4 - 15LW)** | | | | | | | | **Mark** | | **Grade** | | |
|  | **CATEGORY** | | **3** | | **2** | **1** | | **0** | | **Marks** | |
| **SC4-14LW – Knowledge and Understanding** | **Organ definition** | |  | | Accurate definition of organ, example included | Accurate definition of organ, example NOT included | | Incorrect or absent | |  | |
| **Tissue definition** | |  | | Accurate definition of tissue, example included | Accurate definition of tissue, example NOT included | | Incorrect or absent | |  | |
| **Explanation of organ & tissue donation** | |  | | Clear and detailed explanation | Explanation correct, but lacking detail | | Incorrect or absent | |  | |
| **List of organs that can be donated** | |  | | List of organs correct, and includes at least 6 | List of organs correct, and includes at least 3 | | Incorrect or absent | |  | |
| **List of tissues that can be donated** | |  | | List of tissues correct, and includes at least 6 | List of tissues correct, and includes at least 3 | | Incorrect or absent | |  | |
| **Body diagram** | |  | | Correctly labels all 6 organs | Correctly labels at least 3 organs | | Incorrect or absent | |  | |
| **SC4-9WS - Communicating** | **Statistics** | |  | | Correctly identifies the number of people who need organ transplants in Australia  AND  Correctly provides ONE more Australian statistic about organ donation | Correctly identifies the number of people who need organ transplants in Australia  OR  Correctly provides ONE more Australian statistic about organ donation | | Incorrect or absent | |  | |
| **Myth or misconceptions** | | Correctly state ONE myth or misconception  AND  explains why it is in fact not true | | Correctly state ONE myth or misconception  AND  identifies why it is in fact not true | Correctly state ONE myth or misconception | | Incorrect or absent | |  | |
| **One organ donor can transform the life of \_\_\_\_\_\_ or more people.** | |  | |  | Correctly completes sentence | | Incorrect or absent | |  | |
| **Explanation** | |  | | Detailed explanation to why is it important to talk to your family if you decide to become an organ and tissue donor when you die | Basic explanation to why is it important to talk to your family if you decide to become an organ and tissue donor when you die | | Incorrect or absent | |  | |
|  |  | | | POSTER SUB TOTAL | | | | | | | /20 | |

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| **ASSESSMENT MARKING CRITERIA – PART B (Model Plan)** | | |
| **Part B: *Planning and Construction of your Model* (SC4 - 5WS, SC4 - 6WS)** | **Mark** | **Grade** |
| A comprehensive model demonstrates extensive research and planning to appropriately model a biological process.   * *An extensive sketch/plan is created that showcases all components of the model including materials used.* * *Modifications are made for improvement and justification for the changes are noted.* * *The model produced accurately represents and demonstrates the biological process chosen and is constructed utilising the detailed list of equipment.* * *The plan and model thoroughly explains the chosen organ system.* | 9 - 10 | A |
| A thorough model demonstrates thorough research and planning to appropriately model a biological process.   * *A thorough sketch/plan is created that showcases all components of the model including materials used.* * *Modifications are made for improvement and justification for the changes are noted.* * *The model produced effectively represents and demonstrates the biological process chosen and is constructed utilising the detailed list of equipment.* * *The plan and model explains t the chosen organ system.* | 7 - 8 | B |
| A sound model demonstrates adequate research and planning to appropriately model a biological process.   * *A sketch/plan is created that showcases some components of the model including materials used.* * *Modifications are made for improvement and justification for the changes are noted.* * *The model produced adequately represents and demonstrates the biological process chosen and is constructed utilising the list of equipment.* * *The plan and model describes the the chosen organ system.* | 5 - 6 | C |
| A basic model demonstrates limited research and planning to appropriately model a biological process.   * *A sketch/plan is drawn with some components of the model and some materials used.* * *Minimal modifications are made for improvement and basic justification for the changes are noted.* * *The model produced does not adequately represent or demonstrate the biological process chosen and the list of equipment is incomplete or lacking detail.* * *The plan and model identify the the chosen organ system.* | 3 - 4 | D |
| A limited or incomplete model demonstrates lack of research and planning to appropriately model a biological process.   * *A basic sketch/plan is drawn with some materials used.* * *No modifications are made for improvement and or no justification for the changes are noted.* * *An incomplete model is produced that does not adequately represent or demonstrate the biological process chosen and the list of equipment is incomplete.* * *The plan and model may or may not describe the chosen organ system.* | 1 - 3 | E |

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| **ASSESSMENT MARKING CRITERIA – PART C (Video)** | | |
| **Part B: *Communicating of Model (*SC4 - 9WS)** | **Mark** | **Grade** |
| Outstanding presentation that effectivelydemonstrates how the model structure resembles the function of the chosen body process.   * *There is a comprehensive outline of how the model is different from what happens in the body using reliable secondary sources.* * *A clear understanding of the limitations of the model is evident. All aspects of the information piece are accurate, with extensive use of scientific language conventions and representations.* * *An extensive explanation of how the chosen organ system.* | 17-20 | A |
| Thorough presentation that appropriatelydemonstrates how the model structure resembles the function of the chosen body process.   * *There is a detailed outline of how the model is different from what actually happens in the body using reliable secondary sources.* * *A clear understanding of the limitations of the model is evident. Most aspects of the information piece are accurate, with appropriate use of scientific language conventions and representations. Some components, however, may lack detail.* * *A thorough explanation of how the chosen organ system.* | 13-16 | B |
| Sound presentation piece that adequately demonstrates how the model structure resembles the function of the chosen body process.   * *There is an outline of how the model is different from what actually happens in the body using reliable secondary sources.* * *A sound understanding of the limitations of the model is evident. Most aspects of the information piece are accurate, with appropriate use of scientific language conventions and representations, however some aspects of the piece may be incomplete, incorrect, or lack detail.* * *A explanation of how the chosen organ system.* | 9-12 | C |
| Basic presentation that shows some attempt of demonstrateshow the model structure resembles the function of the chosen body process.   * *There is a basic understanding of how the model is different from what actually happens in the body using no secondary sources.* * *A basic understanding of the limitations of the model is evident.* * *The information piece is incorrect or lacks appropriate details, incorrect use of scientific language conventions and representations.* * *A brief description of how the chosen organ system.* | 5-8 | D |
| Limited presentation that shows no attempt ofdemonstrates how the model structure resembles the function of the chosen body process.   * *There is a limited understanding of how the model is different from what actually happens in the body using no secondary sources.* * *Minimal or no understanding of the limitations of the model is evident. The information piece is incorrect or lacks appropriate details, incorrect use of scientific language conventions and representations.* * *A minimal I any links to how the chosen organ system.* | 1-4 | E |