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| **Extended essay: Example commentary** |
| **Subject** | Biology | **WSEE theme (if applicable):** |  |
| **Category for language essays (if applicable):** |  | **Subjects used for WSEE (if applicable):** |  |
| **Title of essay:** | A Study On The Short-Term Effects of The Antioxidants Vitamin C and Vitamin E on the Human Immune System  |
| **Research question:** | How do different doses of the antioxidants Vitamin C and Vitamin E affect the human immune system in the short-term?  |
| **Assessment details** |
| **Criterion**  | **Mark awarded** | **Commentary** |
| A: Focus and method[Maximum possible mark: 6] | 4 | The work meets the standard described by the 3–4 markband overall, although the three strands of this criterion are met to different levels. The topic of antioxidants is appropriate for a biology essay but it is not well focused. No clear link is established in the introductory paragraphs between antioxidants and any particular part of the immune system. The research question is too broad (because it refers to "the immune system") and therefore difficult to address in a 4,000-word essay. Clear consideration is given to the methods employed in this library-based essay with some account of the selection process involved in identifying appropriate journal and web-based material on which to base the argument. There is evidence of informed choice in this process as reflected in the bibliography. It is a strong example of the markband because of the clearly articulated method, appropriate for a library-based essay. This is an overall judgment based on different levels for the three strands (topic 3/4; research question 1/2; methods 5/6). It is not in the higher markband because the research question and topic are not well focused. It is not in the lower markband because there is a clear topic and an appropriate method.  |
| B: Knowledge and understanding[Maximum possible mark: 6] | 4 | The work meets the standard described by 3–4 markband because the sources are used well, and there is a broadly appropriate use and understanding of the terminology as it relates to the immune system and to antioxidants. It is a strong example of the markband because the candidate has been able to show a level of understanding using most if not all of the sources accessed and using appropriate terminology. It is not in the higher markband because there is some irrelevant material in the form of very broad background that is unnecessary and some repetition. There is little evidence to show an understanding of an underlying causal mechanism linking the action of antioxidants to that of the immune system. It is not in the lower markband because journal articles relating to the immune system as well as to the effects of antioxidants are accessed and used and the related terminology is present throughout the text of the essay.  |
| C: Critical thinking[Maximum possible mark: 12] | 7 | The work meets the standard described by the 7–9 markband overall, although the three strands are not met to the same level. The research strand is judged to be at this level because there is a clear explanation of how the research was conducted, what choices were made and what criteria were used to select suitable sources. The analysis is judged to be at the 4–6 level because it is not clear how the analysis was performed. Some tables of data are extracted from the sources and presented unchanged in the text. Other tables of data are generated from the source data but it is unclear how this was done. A t-test was performed on vastly different sample data. The discussion evaluation strand is judged to be at the 7–9 level because there is no detailed evaluation of the sources used and there is no critical evaluation of the limitations of analysing data from vastly different research. It is a weak example of the markband mainly because of the weaknesses identified in analysis. It is not in the higher markband because conclusions to individual parts of the analysis are not well supported. The inclusion of some irrelevant material and other weaknesses do in fact detract from the overall quality of both the analysis and the line of argument. This relates back to the problem of not having a well-focused research question. It is not in the lower markband although the analysis is considered to be at that level because the other aspects of the criterion are stronger. Most if not all of the research is relevant and has been used effectively. There is a clear line of argument and some critical evaluation.  |
| D: Presentation[Maximum possible mark: 4] | 3 | The work meets the standard described by the 3–4 markband because structure and overall layout are clear and appropriate. Significant structural elements are all present. In-text referencing and bibliography are reasonably clear and consistent. lt is a weaker example of the markband because the presentation of tables and graphs is often unclear and formatting (titles, axes labelling, style of graph) is not always appropriate. It is not in the lower markband because the main layout considerations are all apparent and are applied well.  |
| E: Engagement[Maximum possible mark: 6] | 3 | The work meets the standard described by the 3–4 markband because the candidate reflections on the RPPF provide some evidence of an intellectual journey and informed choices at various stages of the research. It is a weaker example of the markband because only some of the reflections are analytical and the evidence for intellectual initiative is incomplete. It is not in the lower markband because there are clear examples of analytical reflections (need for a more focused research question, need for reliable journal articles to support a line of argument).  |
| Total marks awarded | 21/34 |  |