## Stage 1 Psychology

## Assessment Type 1: Investigation Folio

Science as a Human Endeavour Task (SHE) on Topic 2: Neuropsychology

**Introduction and purpose of task:**

In this task you will investigate how science as a human endeavour can relate to the Stage 1 Psychology topic ***Neuropsychology***.

The focus of this task is to explore an aspect of ***Topic 2: Neuropsychology***, with a particular emphasis on the interaction between society and the application of psychological knowledge.

You will use and acknowledge a variety of relevant sources to find information to support your chosen topic.

You may present your research findings as either an article in a scientific journal, as a written report providing an expert’s point of view, an analysis of a new development in a field or a concern about a development that has economic, social, environmental or political implications on any aspect related to neuropsychology.

Your research, findings and outcome should have a focus on ***at least one*** of the key concepts of Science as a Human Endeavour listed below:

**Communication and Collaboration**

* Science is a global enterprise that relies on clear communication, international conventions, and review and verification of results.
* Collaboration between psychologists and stakeholders advances research and understanding. It requires shared evidence from many sources in a multidisciplinary approach.

**Development and Application**

* Developments in research and technology lead to advances in psychological understanding.
* The application of psychological understanding can enable scientists to develop solutions, design actions, and evaluate and respond to economic, sociocultural, and environmental factors.

**Influence**

* Psychological knowledge and its application are both influenced by, and influence economic, sociocultural, religious, ideological, political, and environmental perspectives in a local, national, and global context.
* The use of psychological knowledge may have positive, negative, or unexpected consequences that require monitoring, assessment, and evaluation. The use of psychological knowledge must take into account risks and ethical considerations.

**Part A: Information search and planning**

1. Use the internet and other sources of information to do an initial search related to the impact of some of the below behaviours or experiences on the brain. Identify the information that is known, any technology involved, ethics, benefits and costs to humans and any other information that is relevant.
2. In a table, make a list of possible behaviours affecting the brain and related questions or contexts for your scientific communication.

Some examples include:

* + exercise
  + sleep deprivation (e.g. on Alzheimer’s)
  + gaming
  + diet (e.g. ketogenic diet, veganism)
  + concussion (or other acquired brain injury)
  + illicit drug consumption (e.g. marijuana, MDMA, methamphetamine)

1. Search for articles, data or other information that you could use to support your discussion. Record the resources in a reference list using Harvard referencing. This will assist you in your selection of your final focus.
2. Choose the focus of your work for the scientific communication.

For example:

We are constantly discovering more about the impact of behaviour on the brain, with recent research linking sleep deprivation to Alzheimer’s. Understanding of the impact of sleep deprivation on this illness can help inform societal campaigns to target behaviour change, thereby reducing the cost of Alzheimer’s for individuals and society.

1. Link your chosen focus to at least one of the key concepts of SHE.

For example:

Developments in research, enterprise and technology lead to advancements in psychological understanding.

1. Check the focus you have chosen with your teacher before you proceed.

Date due: \_\_\_\_\_\_\_\_\_\_\_\_

7. Choose the format of your work: an article in a scientific journal, as a written report providing an expert’s point of view, an analysis of a new development in a field or a concern about an issue. You might like to formulate a statement that relates to your chosen focus and SHE key concept as the heading for your work.

8. Plan your article or report. This will be submitted to your teacher for feedback.

Date due: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part B: Refinement of Information for your chosen focus**

9. Search for any further information that will enable you to provide a comprehensive report, with highly relevant psychology, as determined by your plan from Part A. This will also assist you in developing your conclusion.

Record the resources in a reference list use Harvard referencing.

Parts A and B are not included in the word count.

**Part C: Scientific Communication**

Use the information gathered to write an article in a scientific journal, a report providing an expert’s point of view, an analysis of a new development in a field or a concern about an issue you have chosen.

**Your report *must* include:**

* an introduction, to identify the focus of the investigation and the key concept(s) of science as a human endeavour that it links to
* relevant psychology concepts or background (***this should support your report but not be the focus which is Science as a Human Endeavour***)
* an explanation of how the focus of the investigation illustrates the interaction between science and society, including a discussion of the purpose, potential impact, or application of the focus of the investigation (e.g. further development, effect on quality of life, economic impact, intrinsic interest)
* a conclusion
* citations and referencing.

**Assessment Conditions:**

4 weeks to complete. Class time provided for research and support.

Students may submit one draft of the final scientific communication for feedback. This does not include the checkpoints and plan.

Verification of student work will occur throughout the task.

**Word Count: maximum of 1000 words or 6 minutes for an oral presentation for Part C**.

Performance Standards for Stage 1 Psychology

| - | Investigation, Analysis, and Evaluation | Knowledge and Application |
| --- | --- | --- |
| A | Critically deconstructs a problem and designs a logical and coherent psychological investigation with detailed justification.  Accurately and thoroughly obtains, records, and represents data.  Systematically analyses and interprets data and evidence to formulate logical conclusions with detailed justification.  Critically and logically evaluates procedures and their effect on data. | Demonstrates deep and broad knowledge and understanding of a range of psychological concepts.  Applies psychological concepts highly effectively in diverse contexts.  Critically explores and understands in depth the interaction between science and society.  Communicates knowledge and understanding of psychology coherently, with highly effective use of appropriate terms, conventions, and representations. |
| B | Logically deconstructs a problem and designs a well‑considered and clear psychological investigation with reasonable justification.  Logically obtains, records, and represents data.  Logically analyses and interprets data and evidence to formulate suitable conclusions with reasonable justification.  Logically evaluates procedures and their effect on data. | Demonstrates some depth and breadth of knowledge and understanding of a range of psychological concepts.  Applies psychological concepts mostly effectively in diverse contexts.  Logically explores and understands in some depth the interaction between science and society.  Communicates knowledge and understanding of psychology mostly coherently, with effective use of appropriate terms, conventions, and representations. |
| C | Deconstructs a problem and designs a considered and generally clear psychological investigation with some justification.  Obtains, records, and represents data with some errors.  Undertakes some analysis and interpretation of data and evidence to formulate generally appropriate conclusions with some justification.  Evaluates procedures and some of their effect on data. | Demonstrates knowledge and understanding of a general range of psychological concepts.  Applies psychological concepts generally effectively in diverse contexts.  Explores and understands aspects of the interaction between science and society.  Communicates knowledge and understanding of psychology generally effectively, using some appropriate terms, conventions, and representations. |
| D | Prepares a basic deconstruction of a problem and an outline of a psychological investigation.  Obtains, records, and represents data with occasional accuracy and effectiveness.  Describes data and undertakes some basic interpretation to formulate a basic conclusion.  Attempts to evaluate procedures or suggest an effect on data. | Demonstrates some basic knowledge and partial understanding of psychological concepts.  Applies some psychological concepts.  Partially explores and recognises aspects of the interaction between science and society.  Communicates basic psychological information, using some appropriate terms, conventions, and/or representations. |
| E | Attempts a simple deconstruction of a problem and a procedure for a psychological investigation.  Attempts to record and represent some data.  Attempts to describe results and/or interpret data to formulate a basic conclusion.  Acknowledges that procedures affect data. | Demonstrates limited recognition and awareness of psychological concepts.  Attempts to apply psychological concepts.  Attempts to explore and identify an aspect of the interaction between science and society.  Attempts to communicate information about psychology. |