

Year 12 – 2023/2024
INVESTIGATING SCIENCE
M EAGLES



Task Number: 2
Weight: 25%

Notification Date: 30th November 2023
Due Date: Friday 14th June 2024
Must be handed in to Ms Eagles by 3.20pm

OUTCOMES ASSESSED

INS12-4 selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media
INS12-5 analyses and evaluates primary and secondary data and information
INS12-7 communicates scientific understanding using suitable language and terminology for a specific audience or purpose
INS12-15 evaluates the implications of ethical, social, economic and political influences on science

TASK DESCRIPTION

You will be preparing a report on one of the following topics.

- DNA profiling
- Artificial blood
- Genetically Modified Organisms
- Animal Eradication
- Cloning
- Driverless vehicles

If you have an alternative topic in mind, please see Ms Eagles and get approval before starting your assessment task.

No alternative topic approval will be given after Friday 17th May 2024.

TASK INSTRUCTION

Science encompasses a large section of our World and impacts on our daily lives.

Your task is to select at least two different types of media articles (eg newspaper and scientific publication) on the topic of your choice (see task description).

At least one of the chosen articles must contain a table or graph that can be used for analysis.

For you chosen topic, you are required to prepare a report as either a PowerPoint or written report. The report must be a minimum of 600 words.

Your report needs to address the following questions:

- Write a summary of what your topic is about based on the articles. Ie What is the 'science'?
- Evaluate the reliability and validity of each article.
- Describe the impact on each of the following on your topic area based on the information obtained from your articles and other research.
 - Ethics
 - Social
 - Economic
 - Political
- Select a table or graph from one article and analysis it in terms of
 - What does it tell us about the topic?
 - Does the graph/table display bias or is it valid and reliable?
 - Conclusions that could be drawn from the table/graph

There is a reference template attached is to help you collect information. See your Assessment Booklet for correct referencing and acknowledgment formats.

Teacher's signature: _____

M.Eagles

Head Teacher's signature _____

M.Eagles

Deputy Principal's signature _____

A. Lawrence

References Template

This source is a: Book Magazine Newspaper Website Other _____ (circle one)		
Name of Author (s)		
Date Published	Publication/Website Title	
Title of Article (periodicals, encyclopaedias, websites)		
Place Published (books only)	Publisher (books only)	
Edition (if applicable)	Volume number (periodicals or encyclopaedia)	Page Number(s)
The URL is http:// (websites only)		Last date of Access (websites only)

This source is a: Book Magazine Newspaper Website Other _____ (circle one)		
Name of Author (s)		
Date Published	Publication/Website Title	
Title of Article (periodicals, encyclopaedias, websites)		
Place Published (books only)	Publisher (books only)	
Edition (if applicable)	Volume number (periodicals or encyclopaedia)	Page Number(s)
The URL is http:// (websites only)		Last date of Access (websites only)

MARKING GUIDELINES

Write a summary of what your topic is about based on the articles. Ie What is the 'science'?	Section not answered or not present. (0)	Writes a basic summary of one article. (1)	Writes a clear summary of one scientific AND one general article. (2)	Writes a clear summary of both articles but misses some key points from the articles (3-4)	Writes a comprehensive summary of a scientific OR general articles that reflects the science of the article. (5-6)	Writes a comprehensive summary of a scientific and general articles that reflects the science of each article. (7-8)
Evaluate the reliability and validity of each article.	Section not answered or not present. (0)	Evaluates the reliability OR validity of ONE article. (1)	Evaluates the reliability OR validity of both articles. (2)	Evaluates the reliability and validity of ONE article. (3)	Evaluates the reliability and validity of both articles. (4)	
Describe the impact on each of the following on your topic area based on the information obtained from your articles and other research. <ul style="list-style-type: none"> • Ethics • Social • Economic • Political 	Section not answered or not present. (0)	Describes the impact of at least one area for your topic. (1)	Describes the impact of at least two areas for your topic. (2)	Provides a comprehensive description of three areas for your topic. (3)	Provides a comprehensive description of all four areas for your topic.(4)	
Select a table or graph from one article and analysis it in terms of <ul style="list-style-type: none"> • What does it tell us about the topic? • Does the graph/table display bias or is it valid and reliable? • Conclusions that could be drawn from the table/graph 	Section not answered or not present. (0)	Provides a brief analysis of the table/graph (1)	Attempts to explain the graph/table. Attempts to discuss whether the table/graph is valid. Writes a conclusion based on the table/graph. (2)	Provides a clear explanation of the graph/table. Discusses whether the table/graph is reliable and valid including providing reasoning. Draws a valid conclusion from the table/graph. (3-4)		

Communicates scientific understanding	Section not answered or not present. (0)	Uses fundamental written communication and less than 50% of the following completed: readable font and correct size, clear diagrams and images, min words 600, spelling and grammar checked, effective use of diagrams pictures and page layout, appropriate use of terminology, and meets size requirements (1)	Uses fundamental written communication and less than 75% of the following completed: readable font and correct size, clear diagrams and images, min words 600, spelling and grammar checked, effective use of diagrams pictures and page layout, appropriate use of terminology, and meets size requirements (2)	Communicates using clear written expression and includes most of the following: readable font and correct size, clear diagrams and images, min words 600, spelling and grammar checked, effective use of diagrams pictures and page layout, appropriate use of terminology, and meets size requirements (3)	Communicates effectively and includes most of the following: readable font and correct size, clear diagrams and images, min words 600, spelling and grammar checked, effective use of diagrams pictures and page layout, appropriate use of terminology, and meets size requirements (4-5)	Communicates succinctly, logically and sequentially and has readable font and correct size, clear diagrams and images, min words 600, spelling and grammar checked, effective use of diagrams pictures and page layout, appropriate use of terminology, and meets size requirements (6-8)
Referencing	Section not answered or not present. (0)	References and acknowledgements present but only uses template and not formatted (1)	References and acknowledgements present with most formatted correctly as per Assessment booklet. (2)	All references and acknowledgments present and formatted correctly as per Assessment booklet. (3)		

Task Mark	Task Rank	Cumulative Rank

Comment

Teacher signature _____

Date _____