



ORANGE HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

Subject	Science: Independent Research Report
Year	9
Weighting	30%
Teachers	Mr Routh, Mr Warne, Ms Constant, Mr Pickard and Mr Shea
Head Teacher	Mr Shea
Due Date	Specific day to given by classroom teachers (Term 3 Week 7)

Assessment Outline

You will need to produce a research report and develop a public health program/ campaign on an **infectious disease**.

In your report you must:

- a) Research ONE infectious diseases that effects humans, this can be from the list below or any other disease approved by your classroom teacher.
- b) Include information under the subheadings:
 - a. Pre-planning section
 - b. Literature review
 - i. Cause of the infectious disease.
 - ii. Symptoms of the infectious disease.
 - iii. Submit a bibliography to acknowledge where you collected your information
 - iv. How is your collected information reliable?
 - c. Results
 - i. Statistics / data of the infectious disease in Australia or other countries if data is not available in Australia.
 - d. Discussion
 - i. Trends in the data of the infectious disease.
 - ii. Impacts of the infectious disease on society.
 - e. Conclusion
 - i. Design public health program / government response to reduce the number of infections / deaths of the disease.
 - ii. Evaluate the effectiveness and limitations of this response.

→ Make sure you research your information from accurate and reliable sources.

Non-completion of Task:

If you know you are going to be away on the day that the task is due, you must make alternative arrangements with your classroom teacher. If you are away on the day of the examination, you must catch up with your classroom teacher on the first day you return to make alternate arrangements to catch up on this task.

Failure to follow the above procedures may result in a zero award.

Outcomes Assessed

SC5-14LW Analyses interactions between components and processes within biological systems

SC5- 7WS Process and analyse data and information from secondary sources

SC5-15LW Explains how biological understanding has advanced through scientific discoveries, technological developments and the needs of society

Scaffold

Choose an infectious disease, you may choose one not from this list, please discuss with your teacher.

Typhoid Fever	Meningococcal	Measles
Tuberculosis	Typhoid Fever	HIV
Ebola	Swine Flu	Hepatitis B
Malaria	Polio	Whooping Cough

Infectious disease: _____

Pre-planning section:

This section will allow you to think about the task and how you intend to complete it.

Question	Your ideas and reflection
What do I need to do in this task?	
How will I actively seek out information to complete this task?	
What does 'reliable' mean in regard to comparing information?	
How do I ensure the information I collect is reliable?	
Make a rough plan below of how you'll complete this task (include dates, timelines and actions):	

Literature review

The literature review is to provide extensive background information that you have researched on your chosen infectious disease. It should provide all key information that the reader should know. Information that you could include in your literature review

(You need to expand outside of the scope of these questions):

- The type of pathogen that causes the disease.
- What cells or part of the body the pathogen effects?
- Where does the pathogen come from?
- How does the disease spread?
- What effect does the pathogen have on humans?
- What body processes are affected?
- How deadly is the disease?
- What will happen if the disease is left untreated and how will this impact the world?

Bibliography

Use the scaffold on the following page to acknowledge where you collected your information from. Make sure your research is from accurate and reliable sources.

- How can you ensure that the information you have collected from a variety of sources is reliable?

Results

The Results section should include the data and statistics of your chosen infectious disease. This data should be presented in the form of tables and graphs.

Data to include (but is not limited to):

- How many people get infected with the disease each year in Australia (or other countries if no data on Australia can be found).
- How many deaths are due to the infectious disease each year in Australia (or other countries if no data on Australia can be found).
- You must also describe the data you have collected.
- Look at the information collected and examine the phrase – ‘Correlation vs causation’ in relation to your information.

Discussion

In the discussion you should examine the impact of the disease on society and analyse the trends in the data collected in the results. It should also evaluate the trends and explain the reason for any changes over time.

Questions to include (but is not limited to):

- How has the number of infections changed over time?
- Why has there been a change of infections over time?
- How has our knowledge / understanding of the disease changed over time?
- How has the treatment of the infectious disease changed?
- Analyse your research from your literature review and data collection and discuss how they have contributed to your ideas examined in this section.

Conclusion

In the conclusion, you are to use all the information researched to design an educational program/ campaign designed to help prevent the spread of an infectious disease, to reduce the number of infections/deaths which will change the impact the disease has on society. You will need to evaluate the effectiveness and limitations and the impact it may have.

Questions to include (but is not limited to):

- What more can governments and other health organisations do to reduce the number of infections/deaths and impact of society?
- Explain the benefits of your idea.
- Evaluate the limitation of the Public Health Program / Campaign you have created.
- Justify the Public Health Program / Campaign you have created in relation to its impact in today's society

BOOKS				
Author(s)	Date of publication in brackets	Title of book in italics	Name of publisher	
<u>Example:</u> Keay, J.	(2000).	<i>The Great Arc.</i>	Harper Collins.	
WEBSITES				
Author	Date published if available	Title of Article	Title of website in italics	From URL
	If no date available write (n.d.)			
<u>Example:</u> Landsberger, J.	(n.d.)	Citing Websites.	<i>In Study Guides and Strategies.</i>	http://www.studygs.net/citation.htm .
MAGAZINES				
Author	Date	Title of Article	Name of Magazine	Volume, issue, pages
<u>Example:</u> Tumulty, K	(2006, April).	Should they stay or should they go?	<i>Time</i>	167(15), 3-40.
PERSONAL CONVERSATIONS AND EMAILS				
Person's name	Date	How you know them	Nature of communication	
<u>Example:</u> Mr B. Rock	12/7/16	Geologist and uncle	email	
VIDEOS, DVDS, TV SHOWS ETC				
Producer and writer / director or for youtube the person who uploaded video	Date	Title and type of resource	Country and company producing video / or the URL	
<u>Example:</u> Fothergill, A. (producer), Attenborough, D. (narrator).	(2005)	The Blue Planet – Coral Seas [DVD]	UK, BBC.	

Bibliography Scaffold:

Marking Rubric: Scientific Article (Due: Term 3 Week 7)

Student Name: _____

Class: _____

		A	B	C	D	E	0	Total
	Sections from assessment task	Has achieved a very high level of competence in the processes and skills and can apply these skills to new situations. (EXTENSIVE)	A high level of competence in the processes and skills and can able to apply these skills to most situations. (THOROUGH)	An adequate level of competence in the processes and skills. (SOUND)	A limited level of competence in the processes and skills. (BASIC)	Very limited competence in some of the processes and skills. (ELEMENTARY)	Not attempted	
SC5-14LW Analyses interactions between components and processes within biological systems	Pre-planning	Extensively discusses what needs to be completed in the task, how to collect information, defines reliability, how is reliable information collected. Detailed rough plan with timelines and actions mapped out and supplied. 5	Thoroughly discusses what needs to be completed in the task, how to collect information, defines reliability, how is reliable information collected. Fairly detailed rough plan with timelines and actions mapped out and supplied. 4	Discusses what needs to be completed in the task, how to collect information, defines reliability, how is reliable information collected at a sound level. Attempted rough plan with timelines and actions supplied. 3	Discusses what needs to be completed in the task, how to collect information at a sound level. Attempted rough plan. 2	Some relevant information supplied 1	0	/15
	Literature review	The research is extensive with many (5 or more) pieces of research summarised. Some scientific journals/ papers are used. Links to impacts. 10 – 9	The research is extensive, and the information is brief scientific journal/paper mentioned. 8 – 7	The research is completed but the number is small, or the information does not relate to it. 6 – 5	The research is attempted, and some information is provided. 4 – 3	The research is attempted but little information relevant to your research question are included. 2 – 1	0	
SC5- 7WS Process and analyse data and information from secondary sources	Bibliography	Uses a wide range of reliable and valid secondary sources (7 or more) to gather reliable information. Bibliography follows the scaffold provided. Reliability discussed in detail 5	Uses a wide range of reliable and valid secondary sources (6 or more) to gather reliable information. Bibliography follows the scaffold provided. Reliability discussed 4	Uses a range of relevant secondary sources (at least 5) to gather reliable information. Bibliography is listed but not all information is provided. 3	Uses some relevant secondary sources (at least 3) to gather reliable information. Bibliography is listed but not all information is listed. 2	Uses a limited number of secondary sources (1 – 2 sources) to gather information. Name of source is listed only. 1	0	/15
	Results	Data collected is collated, calculated and the trends identified. Graphs, tables or visual devices are complete information to explain the data is detailed. Links to impacts. 10 – 9	Data collected is mostly collated, calculated and trends are somewhat identified. Graphs, tables or visual devices are mostly complete and information relating to explain the data is included. 8 – 7	Data is collected and collated and presented in an effective manner. The relationships between data is somewhat identified. 6 – 5	Data is collected and collated in a basic manner graphs and tables are included but not all correct. 4 – 3	An attempt has been made to collate and present data. 2 – 1		

SC5-15LW Explains how biological understanding has advanced through scientific discoveries, technological developments and the needs of society	Discussion	Extensively examines the impact of the disease on society in detail. Thoroughly analyses the reasons the data has changed over time. Evaluates the treatment and prevention of the disease and relates to the trends in data. Links to impacts. 10 – 9	Examines the impact of the disease on society in detail. Analyses the reasons the data has changed over time. Relates treatment and prevention of disease to trends in data. 8 – 7	Explains the impact of the disease on society. Explains the reasons the data has changed over time. Describes the link between treatment and prevention of the disease to trends in data. 6 – 5	Describes the impact of the disease on society. Describes the reasons the data has changed over time. Identifies the link between treatment and prevention. 4 – 3	Identifies the impact the disease has on society. Identify a change in data over time. Identifies a treatment or prevention. 2 – 1	0	/20
	Conclusion	Create a comprehensive health program / campaign to reduce the number of cases of the disease. Specific benefits of the program/ campaign are explained. Extensively evaluates the limitations of their program/ campaign Detailed justification of the Public Health Program / Campaign in relation to its impact in today's society 10 – 9	Create a detailed health program / campaign to reduce the number of cases of the disease. Benefits of the program/ campaign are described and explained. Evaluates the limitations of their program/ Campaign Satisfactory justification of the Public Health Program / Campaign in relation to its impact in today's society 8 – 7	Create a health program / campaign to reduce the number of cases of the disease. Benefits of the program/ campaign are explained. Limitations of their program/ campaign is described Attempted justification of the Public Health Program / Campaign in relation to its impact in today's society 6 – 5	Simple health program / campaign included. Benefits of the program/ campaign are described. Simple limitations of their program/ campaign is described 4 – 3	Vague health program / campaign included. Benefits of the program/ campaign are included. Limitations of their program/ campaign is included 2 – 1	0	

Result	Grade Total	A 50 – 45	B 44 – 36	C 35 – 14	D 13 – 6	E 5 – 0	/50
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Comments:
