Gymea Technology High School
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Year 9, SCIENCE

Task 2: Semester 1 Examination

Due Date: Examination Block, Tues 19/5

Task Distributed: 4th May

Unit: Disease and Energy

Task Type: Examination

Task Weighting: 20%

Outcomes: SC5-DIS-01, SC5-WS-06, SC5-WS-08, SC5-WS-01, SC5-WS-07, SC5-EGY-01

Task Description

The task is an 80 minute examination that will be completed under examination conditions during the half yearly examination block. The exam will consist of various knowledge and skills-based questions related to the Semester 1 topics studied in class (Disease and Energy).

The examination will include a literacy component and various step by step skills-based questions.
The examination will consist of three parts:

Section A: 20 Marks - multiple choice questions

Section B: 34 Marks - Short response questions which may be based on the following:
(marks per question will be indicated on the page)

- Explain the importance of homeostasis
- Describe examples of responses to stimuli.
- Use and Identify the role of feedback loops in maintaining homeostasis
- Describe how the nervous and endocrine systems function.
- Compare and contrast the responses of the nervous and endocrine systems to stimuli.
- Identify a range of infectious diseases and their causes
- Distinguish between infectious and non-infectious diseases.
- Identify a range of non-infectious diseases and their causes.
- Explain the different transmission methods of a range of infectious diseases
- Define the terms ‘epidemic’, ‘endemic’ and ‘pandemic
- Use specific examples to compare the features and incidence rates of epidemics, endemics and pandemics
- Identify how the body can prevent the entry of pathogens
- Describe how the body responds to invading pathogens
- Outline how vaccinations work.
- Describe a number of strategies that can help reduce the incidence of non-infectious diseases.
- Assess measures that can prevent the incidence and spread of infectious diseases.
- Explain how some plants have been used as bush medicine
- Explain how some plants are used as bush medicine
- Describe a named immunisation program
- Analyse data on the immunisation program for trends and link this data to disease occurrence
- Identify a range of energy types.
- Apply the law of conservation of energy to account for the total energy involved in energy transfers and transformations
- Explain and calculate energy efficiency in relation to energy transfers and transformations
- Explain how to improve efficiency.
- Identify sources of energy.
- Evaluate the advantages and disadvantages of using renewable and non-renewable sources of energy to generate electricity

Section C: 16 Marks- Extended response - A stimulus question that requires an in-depth response which will assess both content (5 marks) and literacy skills (5 marks). This will also include a scaffold that will be marked (6 Marks)

To prepare for this examination, look over your class notes and complete all your worksheets. Please see your Science teacher for any concepts that you misunderstand. The Learn. Gymea, page will also have practice exam style questions that you can attempt before your examination.

NESA Glossary of Key Words

Understand the verb associated with the task. The verb will provide an understanding of the detail needed to successfully answer the question.

- DISCUSS: Identify issues and provide points for and/or against.
- EXPLAIN: Relate cause and effect; make the relationships between things evident; provide why and/or how.
- IDENTIFY**:** Recognise and name.
- OUTLINE: Sketch in general terms; indicate the main features of.
- COMPARE: Show how things are similar or different.
- EVALUATE: Make a judgement based on criteria; determine the value of.
- JUSTIFY: Support an argument or conclusion.

Check the NESA Glossary of key words for further guidance.

https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/hsc/hsc-student-guide/glossary-keywords

Details of Submission

For successful completion of this examination you must bring the following equipment:

- NESA approved calculator
- Blue or black pen
- Pencils and an eraser for drawing graphs or diagrams
- A ruler

Teacher Feedback and Student Self-Reflection

- The task will typically be returned to students within 25 days of the due date.
- At this time feedback including information on how to improve will be provided through mechanisms such as marking criteria, and/or written comments.
- Students can clarify or seek further feedback by speaker with their teacher or the assessment marker.
- You will also receive feedback on your literacy performance based on the criteria in the school's literacy marking rubric. The marks achieved for literacy will account for between 10% – 20% of the maximum task value.

Upon return of the task, students will also be expected to complete a self-reflection form to identify how they performed and how they can improve in the future.

How does this link to my learning?

Learning and integrating the basic science process skills together and gradually developing abilities to design fair tests is increasingly emphasised in successive grade levels, and is an expectation of students in senior school.

Assessment Procedures

All students should be fully aware of the School Assessment Procedures for their year group. These were provided at the beginning of the school year and are available off the school website under the Learning Tab for each year group.

Tips on how to study

- Look through your exercise book or device and write summary notes for each topic.
- Use flowcharts or diagrams for complex concepts.
- Organise study groups with friends.
- Download and install flashcard software on your phone or computer. Write flashcards for revision.
- Highlight the topics you are not familiar with and revise them.
- Ask your teacher to explain any concepts that you do not understand

GTHS Literacy Criteria

Literacy Outcomes	Elementary achievement You have:	Limited achievement You have:	Satisfactory achievement You have:	High achievement You have:	Outstanding achievement You have:
Vocabulary *Uses technical vocabulary to explain concepts and/or range of precise and appropriate words for effect*	Very limited response. Few content words used.	Only simple words are used.	Some precise and technical words are used.	Sustained use of precise and technical words.	Sustained, consistent and fluent use of precise and technical words.
	0	0.25	0.5	0.75	1
Punctuation *Use of correct and appropriate sentence and other punctuation for effect, and to aid in reading of the text*	No evidence of correct sentence punctuation.	Sentence punctuation is correctly used in at least one place - *one sentence is punctuated correctly.*	Some correct sentence level punctuation (at least 50%). May attempt other punctuation where it is required.	Mostly correct sentence level punctuation (80%) and at least two correct examples of other punctuation.	Writing contains accurate use of all applicable punctuation.
	0	0.25	0.5	0.75	1
Sentences & Cohesion *The intentional construction of a variety of sentences to match purpose and audience, and the control of multiple sentence threads across the whole text.*	No clear evidence of sentences: a list of words OR text fragments.	At least one sentence is used correctly. Some meaning can be construed from the text.	Some correct formation of sentences. Mainly uses simple and compound sentences, but may attempt more complex structures.	Most sentences are correct. Range of sentence types and connectives are evident, but with varied effectiveness.	All sentences are correct, effective and controlled, and include a range of sentence types and connectives (complex sentences and other sophisticated structures)
	0	0.25	0.5	0.75	1
Paragraphs *Paragraphs are used to effectively structure information and partition events and ideas*	No correct use of paragraphing; may be a block of text or random breaks.	Ideas are separated; paragraphs may contain some unrelated ideas.	At least ONE paragraph is well structured and develops an idea	Writing is organised into paragraphs that assist the reader to digest chunks of the text, but may not be linked or executed effectively.	All components of the paragraphs are evident and paragraphing is consistent and well-developed across the whole text.
	0	0.25	0.5	0.75	1
Text Structure *Uses features of the appropriate text type*	No evidence of the structural features of the appropriate text type. *No attempt to write in the appropriate text type and/or response is off task.*	Minimal evidence of the structural features - *1 component evident* - of the appropriate text type.	Some evidence of the structural features - *2 components evident* - of the appropriate text type.	Substantial evidence of the structural features - *all components evident but there may be some lapses* - of the appropriate text type.	Coherent and controlled use of **all** the appropriate structural features of the text type.
	0	0.25	0.5	0.75	1
	Level of response is well below syllabus expectation	Level of response is below syllabus expectation	Level of response is equivalent to syllabus expectation	Level of response is above syllabus expectation	Level of response is well above syllabus expectation