



Year 10 Engineering in Technology

Task 1: Maths Concepts in Engineering Quiz

Due Date: Wednesday 25th March 2026

Task Distributed: 03rd March 2026

Unit: Fluid Mechanics

Task Type: Moodle Quiz

Task Weighting: 20%

Outcomes:

1. Knowledge and understanding of the relationship between materials and their applications.
5. Appreciation of the relationships between technology, mathematics and engineering.

Task Description

- A one period Moodle quiz that may consist of a variety of question styles including; multiple choice,
- matching and short response questions.
- You will be provided with working out paper to plan and aid your mathematical thinking. Your
- working out paper will be handed back to the teacher at the end of the quiz.

Fluid Mechanics

- Can explain various properties of fluids.
- Can convert between density, specific weight and specific gravity.
- Archimedes Principle
- Pascal's Principle
- Can solve simple flow rate problems.
- Bernoulli's Principle

Types of Engineers

- Understands and can explain the roles and different types of Engineers

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.

- **Analyse:** Identify components and the relationship between them; draw out and relate implications
- **Compare:** Show how things are similar or different
- **Describe:** provide characteristics and features
- **Discuss:** Identify issues and provide points for and/or against
- **Explain:** relate cause and effect; provide why and/or how
- **Justify:** support an argument or conclusion
- **Recommend:** Provide reasons in favour

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

- a paper copy of the assessment and rubric will be given on the day
- this assessment will be completed online within Moodle
- task duration is 45 minutes plus 5 minutes reading time
- a calculator may be used

Teacher Feedback and Student Self-Reflection

- The task will typically be returned to students within 14 days of the due date.
- At this time feedback including information on how to improve will be provided through worked solutions and a literacy marking rubric.
- Students can clarify or seek further feedback by speaking with their teacher or the assessment marker.
- Upon return of the task, students will also be expected to complete a self-reflection survey.

How does this link to my learning?

- This task will be used to assess your knowledge and understanding of the outcomes listed that you have been studying in class this semester.
- The marks achieved in this assessment will go towards your semester 1 report and may determine your class in any future class placements.
- This task will draw together the above outcomes and assess your ability to apply a range of skills and techniques that you have covered in class.

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.

GTHS Literacy Criteria - V2. 2023

Literacy Outcomes	Elementary achievement You have:	Limited achievement You have:	Satisfactory achievement You have:	High achievement You have:	Outstanding achievement You have:
Vocabulary <i>Uses technical vocabulary to explain concepts and/or range of precise and appropriate words for effect</i>	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 <i>Use of correct and appropriate sentence and other punctuation for effect, and to aid in reading of the text</i>	No evidence of correct sentence punctuation.	Sentence punctuation is correctly used in at least one place - <i>one sentence is punctuated correctly.</i>	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 <i>The intentional construction of a variety of sentences to match purpose and audience, and the control of multiple sentence threads across the whole text.</i>	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 <i>Paragraphs are used to effectively structure information and partition events and ideas</i>	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 <i>Uses features of the appropriate text type</i>	No evidence of the structural features of the appropriate text type. <i>No attempt to write in the appropriate text type and/or response is off task.</i>	Minimal evidence of the structural features - <i>1 component evident</i> - of the appropriate text type.	Some evidence of the structural features - <i>2 components evident</i> - of the appropriate text type.	Substantial evidence of the structural features - <i>all components evident but there may be some lapses</i> - 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
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