



## Year 8, Technology Mandatory

# Task 2: Sustainable Futures - A Renewable Resource

**Due Date:** 24/5/24 Friday Week 4

**Task Distributed:** 7/5/24

**Unit:** Materials – Sustainable Futures

**Task Type:** Report

**Task Weighting:** 45%

**Outcomes:** TE4-1DP, TE4-9MA, TE4-10TS

### Task Description – Sustainable Futures: A Renewable Resource

#### DESIGN BRIEF:

A renewable resource is a natural resource which can replenish with the passage of time, either through biological reproduction or other naturally recurring processes. Renewable resources are a part of Earth's natural environment and the largest components of its ecosphere.

Over time, humans have learned that deforestation has had unintended negative effects on the environment. The destruction of rain forests is one of the critical causes of climate change. Deforestation also affects the water cycle. As a consequence, renewable resources have become a particular focus for the timber industry.

This task raises student awareness of issues relating to the sustainability of resources in the timber industry. Students learn to identify renewable resources in the timber industry and to appreciate the importance of sustainability to the timber industry.

Your task is to undertake research on renewable timber resources and present your findings in a **written report**.

The report needs to:

- **Justify** why timber is regarded as a renewable resource?
- **Identify** and **describe** the types of timbers and the geographical location of areas where you would find these renewable timber resources in Australia? Provide a map to highlight these areas.
- **Discuss** and **analyse** the advantages/disadvantages of using renewable timber and how this technology impacts on our society and environment.
- **Identify** and **outline** 5 examples of products made using timber from a renewable resource, (include pictures).

### 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.

- **Justify:** Support an argument or conclusion
- **Identify:** Recognise and name
- **Describe:** Provide characteristics and features
- **Discuss:** Identify issues and provide points for and/or against
- **Analyse:** Identify components and the relationship between them; draw out and relate implications

- **Outline:** Sketch in general terms; indicate the main features of

Check the NESAs 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

The successful completion of this task requires the written report to be submitted on google classroom by the due date. The practical component will be completed in lessons and submitted in your last lesson prior to the due date.

## 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 an annotated marking criteria.
- Students can clarify or seek further feedback by speaking 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.

Students will be required to complete a self-reflection form at the time students receive their assessment mark and teacher feedback. Self-reflection is an important part of the learning process as it provides an opportunity to reflect on the strength of our performance, as well as areas that have been identified to strengthen in future tasks.

## How does this link to my learning?

- Project work in the Technology Mandatory course is intended to give students the opportunity to plan, design and create a product that has a specific purpose. Students are to follow the design and production process to develop a mixed material moneybox that fits the design brief.
- Students will gain an awareness of the relationship between technology, industry, society and the environment, and develop their ability to make value judgements about issues, decisions and consequences arising from this interaction. Students develop an awareness of the importance of environmental sustainability in relation to the use of materials and technologies and their effects on people and society.

### Report Outcomes

1. Designs, communicates and evaluates innovative ideas and creative solutions to authentic problems or opportunities.
3. Examines how people in technology related professions contribute to the sustainable and ethical use of technology in the economy, environment and society.
4. Investigates how the characteristics and properties of tools, materials and processes affect their use in design solutions.

## 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 on the school website under the Learning Tab for each year group.

Criteria	1	2	3	4	5
<b>Justify</b> why timber is regarded as a renewable resource?	Lists some key features or characteristics of a renewable resource. Provides a statement linking timber to at least one feature or characteristic.	Describes a renewable resource, outlining some key features or characteristics. Provides a statement supporting how or why timber is regarded as a renewable resource.	Describes a renewable resource, outlining some key features and characteristics. Provides a clear argument supporting how and why timber is regarded as a renewable resource.	In detail describes a renewable resource, outlining the key features and characteristics. Provides a thorough and clear argument supporting how and why timber is regarded as a renewable resource.	In extensive detail describes a renewable resource, outlining the key features and characteristics. Provides an extensive and clear argument supporting how and why timber is regarded as a renewable resource.
<b>Identify</b> and <b>describe</b> the types of timbers and the geographical location of where you would find these renewable timber resources in Australia? Provide a map to highlight these areas.	Names a type of timber and the geographical location this renewable timber resource can be found in Australia? A map provided.	Names and describes a type of timber and the geographical location this renewable timber resource can be found in Australia? A map provided.	Names and describes types of timber and the geographical location these renewable timber resources can be found in Australia? A detailed and labelled map provided.	Names and describes various types of timber and the geographical location these renewable timber resources can be found in Australia? A detailed and labelled map provided.	Names and in detail describes various types of timber and the geographical location these renewable timber resources can be found in Australia? A detailed and labelled map provided.
<b>Discuss</b> and <b>analyse</b> the advantages and disadvantages of using renewable timber and how this technology impacts on our society and environment.	Lists an advantage or disadvantage of using renewable timber. Discusses listed advantage or disadvantage to provide a link to how this technology impacts on our society and / or environment.	Describes a few advantages and disadvantages of using renewable timber. Discusses an advantage and disadvantage to provide a statement on how this technology impacts on our society and environment.	Describes a number of advantages and disadvantages of using renewable timber. Discusses the advantages and disadvantages to provide a statement on how this technology impacts on our society and environment.	In detail describes various advantages and disadvantages of using renewable timber. Analysing each advantage and disadvantage to provide a detailed explanation of how this technology impacts on our society and environment.	In extensive detail describes various advantages and disadvantages of using renewable timber. Analysing each advantage and disadvantage to provide a very detailed and accurate explanation of how this technology impacts on our society and environment.

<b>Identify and outline 5</b> examples of products made using timber from a renewable resource, (include pictures).	Lists an example provided of a product made using timber from a renewable resource. No pictures included.	Identifies and outlines features of products made using timber from a renewable resource. A picture included for each example.	Identifies and outlines the main features of 5 products made using timber from a renewable resource. A picture included for each example.	In detail identifies and outlines the main features of 5 products made using timber from a renewable resource. Multiple pictures included for each example.	In extensive detail identifies and outlines the main features of 5 products made using timber from a renewable resource. Multiple pictures included for each example.
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**Feedback:**

**Total /20**

# Literacy Rubric

LITERACY MARKING CRITERIA	Descriptors				
	0	1	2	3	4
<b>Vocabulary</b> Uses technical vocabulary to explain concepts and/or range of precise and appropriate words for effect	- Symbols or drawings	- Only simple and nontechnical 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.
<b>Punctuation</b> Use of correct and appropriate punctuation for effect and to aid in reading of the text	- No or minimal evidence of correct sentence punctuation (less than 25%)	- Limited evidence of correct sentence punctuation (at least 25%)	- Some correct sentence level punctuation (at least 50%).	- Mostly correct sentence level punctuation (80%) and <i>at least two</i> examples of other punctuation.	-Writing contains accurate use of all applicable punctuation.
<b>Sentences</b> Intentionally constructs a variety of sentences to match purpose and audience	- No evidence of sentences - Drawings, symbols, a list of words OR text fragments	- At least one sentence is used correctly.	- Some correct formation of sentences. (at least 50%)	- Most sentences (80%) are correct but are largely unsophisticated.	- All sentences are correct including sophisticated sentences.
<b>Paragraphs</b> 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, provides at least ONE correct break between ideas - Paragraphs may contain some unrelated ideas	- At least ONE paragraph is well structured and develops an idea	- All paragraphs are focused on one idea or a set of like ideas but may not be linked effectively.	- Paragraphing creates flow, connectivity and supports argument.
<b>Text Structure</b> Uses features of the appropriate text type	- No evidence of structural components of the appropriate text type	- Minimal evidence of the structural components of the appropriate text type.	- Some evidence of the structural components of the appropriate text type.	- Substantial evidence of the structural components of the appropriate text type.	- Coherent and controlled use of the appropriate structural components of the text type.
<b>Literacy</b>					<b>/15</b>
<b>Total</b>					<b>/25</b>