Wee Waa High School

Assessment Task Notification

FACULTY: SCIENCE

Student Name:		**Class:**
Title: Optimising Energy Use		
Assessment Task Number: 1	**Course: Science Stage 5**	**Weighting: 25%**
Teacher/s:	Mrs Wilson, Mr Catt, Ms Gibson	**Issue Date**: 24-03-26
Type:	Depth Study	**Due Date:** 24-04-26
Allocated Lessons:	At least 6 lessons of class time	**Time: 9:10**

Syllabus outcomes being assessed:

- evaluates current and alternative energy use based on ethical and sustainability considerations **SC5-EGY-01**
- selects and uses scientific tools and instruments for accurate observations **SC5-WS-01 (Observing)**
- follows a planned procedure to undertake safe, ethical, valid and reliable investigations **SC5-WS-04 (Conducting investigations)**
- selects and uses a range of tools to process and represent data **SC5-WS-05 (Processing data and information)**
- selects suitable problem-solving strategies and evaluates proposed solutions to identified problems **SC5-WS-07 (Problem-solving)**
- communicates scientific arguments with evidence, using scientific language and terminology in a range of communication forms **SC5-WS-08 (Communicating)**

Assessment Presentation Guidelines:

Two items should be submitted for assessment:

- a **PowerPoint presentation**, developed as a group
- a **learning journal**, completed individually.

Group component

Design a **PowerPoint** outlining your proposal for optimising energy use at school:

- maximum 5 slides (excluding title and reference slides)
- minimum font size 14.

Individual student component

Complete the supplied **learning journal,** including:

- a personal reflection answering key questions about your proposal (maximum 400 words)
- raw data and calculations to support your proposal and reflection
- evidence of planning, research and data collection.

Task Description:

You will collect, process and analyse data, and develop strategies to optimise energy use in your school.

You will:

- work in a group to prepare and present an action proposal for your school that includes an explanation of energy use issues and sustainable solutions
- individually reflect on the proposal and evaluate it
- maintain a learning journal to guide and document your investigation

Additional Information:

The task will run over 4 weeks starting 23-03-26. Six periods of class time will be provided to complete this task. It is not designed to be completed at home.

Declaration of Authenticity

I certify that:

- **The planning, development, content and presentation of this assessment task is my own work in every respect**
- **This assessment task has not been copied from another person's work or from books or the internet or any other source**
- **I have used appropriate research methods and have not used the words, ideas, designs, music, images, skills or workmanship of others without appropriate acknowledgement in this assessment task or in its development**
- **By submitting my assessment task electronically, I acknowledge this declaration of authenticity of my work**

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Student Signature **Date**

Feedback

Feedback will be provided in written format and on teams.

Marking Criteria:					
Grade	**A**	**B**	**C**	**D**	**E**
PowerPoint Evaluates current and alternative energy use. **SC5-EGY-01**	Thoroughly evaluates current energy use and supports it with extensive evidence.	Evaluates current energy use and supports it with relevant evidence.	Outlines current energy use and partially supports it with evidence.	Identifies examples of energy use without supporting evidence.	Identifies an example of energy use without supporting evidence.
PowerPoint Extract information from a wide range of reliable secondary sources and acknowledge these sources using an accepted referencing style. **SC5-WS-04**	Information has been gathered from appropriate sources and uses an accepted referencing style with no errors.	Information has been gathered from appropriate sources and consistently uses an accepted referencing style.	Information has been gathered from a limited range of sources and uses a basic referencing style.	There is little or no evidence that information sources have been consulted. Minimal or incorrect use of referencing style.	No relevant information

Grade	A	B	C	D	E
PowerPoint Selects suitable problem-solving strategies to identified problems and proposes solutions. **SC5-WS-07**	Clearly explains highly effective strategies that: • optimise the energy use • address the identified problem statement. Outlines the costs and an action plan while identifying how impact will be measured. Demonstrates strong reasoning skills (critical thinking and creativity) and the use of causal language.	Describes effective strategies for improving energy use. Outlines the costs and an action plan while identifying how impact will be measured. Demonstrates sound reasoning.	Two of: Describes effective strategies for improving energy use. Outlines the costs and an action plan while identifying how impact will be measured. Demonstrates sound reasoning.	Describes strategies that might improve energy use. The reasoning might be simplistic.	Identifies strategies that might improve energy use. The reasoning is often flawed.
PowerPoint Communicates scientific arguments with evidence, using scientific language and terminology in a range of communication forms **SC5-WS-08**	Communicates arguments for action concisely and coherently, providing evidence and reasoning. Uses scientific language and terminology appropriate to the audience.	Communicates arguments for action clearly. Uses scientific language and terminology appropriate to the audience.	Communicates an argument for action clearly. Uses basic scientific language and terminology	Communicates an argument for action with some clarity. Uses basic scientific language and terminology	Does not clearly communicate an argument for action. Uses minimal scientific language and terminology

Grade	A	B	C	D	E
Learning Journal Follows a planned procedure to undertake safe, ethical, valid and reliable investigations **SC5-WS-04**	The learning journal includes all relevant data and information. Obtains information on energy use and standards from reliable sources.	The learning journal includes most of the relevant data and information. Obtains information on energy use and standards from reliable sources.	The learning journal includes some relevant data and information. Obtains information on energy use and standards from reliable sources.	The learning journal includes some relevant data and information. Obtains information from some reliable sources.	The learning journal includes limited data and information to support the investigation. Obtains Information from unreliable sources
Learning Journal Selects and uses a range of tools to process and represent data **SC5-WS-05**	Effectively uses a range of tools to organise collected data and information (for example, tables, graphs and diagrams). Calculations are used to support evidence-based scientific conclusions.	Uses a range of tools to organise collected data and information (for example, tables, graphs and diagrams). Calculations are used to support scientific conclusions.	Uses tools to organise collected data and information. Some calculations are used to support conclusions.	Uses an MS excel to organise some collected data.	Data and information are not clearly and/or logically organised.
Learning Journal Evaluates proposed solutions to identified problems **SC5-WS-07**	Thoroughly evaluates solutions, including strengths and weaknesses and suggestions for improvement. Demonstrates clear and logical reasoning.	Evaluates solutions, including strengths and weaknesses. Demonstrates clear and logical reasoning.	Evaluates solutions, including strengths and weaknesses. Demonstrates sound reasoning.	Provides a limited evaluation, including a strength and/or a weakness. The reasoning might be simplistic.	Provides little to no evaluation.

Grade	A	B	C	D	E
Learning Journal Communicates scientific arguments with evidence, using scientific language and terminology in a range of communication forms **SC5-WS-08**	Does all of: Communicates arguments concisely and coherently. Uses appropriate scientific language and terminology. Effectively uses a wide range of communication forms such as tables, graphs, diagrams, pictures.	Does two of: Communicates arguments concisely and coherently. Uses appropriate scientific language and terminology. Effectively uses a wide range of communication forms such as tables, graphs, diagrams, pictures.	Communicates arguments clearly. Uses appropriate scientific language and terminology. Uses a range of communication forms.	Communicates arguments with some clarity. Uses basic scientific language and terminology. Uses a limited range of communication forms.	Does not communicate arguments clearly. Uses minimal scientific language and terminology. Limited use of communication forms.
				OVERALL GRADE	

Teacher Feedback: