



Year 7 Technology Mandatory Engineered Systems Assessment Task 2023

TOPIC: Engineering Systems	MARKS: /20
SUBMISSION REQUIREMENTS: Online submission through canvas by Friday 5 th May, Week 2 Term 2.	WEIGHTING: 25%
OUTCOMES TO BE ASSESSED: TE4-2DP – student plans and manages the production of designed solutions TE4-8EN – explains how force, motion and energy are used in engineered systems	
DIRECTIONAL VERBS: Plans: to decide and outline designs for a particular project Explains: to make an idea clear to someone by providing details and evidence.	
TASK DESCRIPTION: During class time you will be constructing a solar powered car. You will be required to complete an e-portfolio on CANVAS which outlines the planning process you have used in the creation of your solar car as well as an explanation of how force, motion and energy are used by your solar car.	

ASSESSMENT CRITERIA:

In order to successfully meet the requirements of this task you should consider the following things:

- Complete all sections of the e-portfolio template found on CANVAS.
- Your e-portfolio will include sections that relate to the **planning** stages of your solar car.
- Design sketching (ideation), a final design sketch with a front, side and top view.
- A record of production steps with a self-evaluation table.
- Three scaffolded tables that ask you to accurately identify with a diagram, the key concept and give a detailed **explanation** of how motion, force and energy are used by your solar car.
- Upload your finished e-Portfolio to the CANVAS submission point when completed. Your teacher will go through this process in a timetabled computer room lesson.
- Make sure the task is submitted by the due date.

If you need any assistance outside class time, please contact your teacher via email:

Mrs Stipanovic: vanessa.stipanovic@det.nsw.edu.au

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ASSESSMENT MARKING CRITERIA		
E- Portfolio (TE4-2DP), (TE4-8EN) 20 Marks	Mark	Grade
<p>Expertly experiments with creative planning & ideation techniques and approaches in designing, producing & managing a portfolio for the Solar Car.</p> <p><i>Student has demonstrated an extensive use of planning in all stages of the design process. A range of planning and ideation techniques are addressed with the inclusion of project management techniques. Extensive effort in communicating all sections in the portfolio in a succinct and well written manner. A detailed explanation of the engineering concepts; force, motion and energy with a clear link to the solar car project.</i></p>	17-20	A
<p>Successfully experiments with a range of creative planning and ideation techniques and approaches in designing, producing & managing a portfolio for the Solar Car.</p> <p><i>Student has demonstrated a thorough use of planning in all stages of the design process. A range of planning and ideation techniques are addressed with the inclusion of project management techniques. A High level of effort in communicating all sections in the portfolio. Creates a report that includes a thorough explanation of the engineering concepts; force, motion and energy with a clear link to the solar car project.</i></p>	13-16	B
<p>Experiments with some creative planning and ideation techniques and/or approaches in designing, producing & managing a portfolio for the Solar Car.</p> <p><i>Student has demonstrated a sound use of some of the planning and ideation techniques used in the design process. Sound effort made in communicating most sections of the portfolio. Creates a report that includes a sound explanation of at least one to two of the engineering concepts; force, motion and energy in relation to the solar car project.</i></p>	9-12	C
<p>Some experimentation has occurred with planning & ideation techniques and/or approaches in producing a portfolio & solar car.</p> <p><i>Student has demonstrated the basic use of planning and ideation in some stages of the design process. Some effort made in communicating sections of the portfolio. Creates a report that includes a basic explanation of an engineered concept that has limited link to the solar car project.</i></p>	5-8	D
<p>Limited use of planning & ideation techniques with minimal reference to the final design product.</p> <p><i>Student has demonstrated the limited use of planning and ideation in the design process. Minimal effort made communicating ideas in the portfolio. Creates a report that includes limited or very little explanation of an engineered concept with little or no relation to the solar car project.</i></p>	1-4	E

Teacher comment / feedback:
