



CLANCY CATHOLIC COLLEGE

Year 8 Technology Mandatory Rotation 3 GUMBALL Portfolio & Project – Task 4

NAME:	TEACHER:
Due Date: Term 4 Week 6 (Circle) 10/11/14 11/11/14 12/11/14 13/11/14 14/11/14 Period: _____	
KLA: TAS	WEIGHTING: 25% MARKS: 30
HOW TO SUBMIT: Your assessment will be submitted/completed in the following manner:	
HAND IN	

Assessment Policy:

This task is a formal assessment. It requires each student to demonstrate their understanding of the course studied by devoting sufficient time and effort to meeting the requirements as clearly stated below. This task must be submitted on time. The following reasons are not valid excuses for late submission of tasks; computer difficulties, printer problems, or lack of organisation. It is understood that any difficulty with the task must be brought to the attention of the classroom teacher several days before the due date of the task.

Declaration of Originality:

In accordance with the College Assessment Policy, I declare that this submission is my own work and that to the best of my knowledge, it contains no material previously published or written by another person except where acknowledgement has been made.

Student Signature: _____

SYLLABUS OUTCOMES: A student will:	REPORT OUTCOMES:
4.1.1: Applies design processes that respond to needs and opportunities in each design project	Utilises and effectively documents each stage of the design process
4.2.2 selects, analyses, presents and applies research and experimentation from a variety of sources	
4.4.1 explains the impact of innovation and emerging technologies on society and the environment.	Identifies and explains ethical, social, environmental and sustainability considerations

TASK INSTRUCTION:

PRACTICAL COMPONENT:

Using the gumball dispenser booklet guide and a combination of tools and techniques, construct a gumball dispenser as per the specifications provided. You are permitted to make modifications to the inside of the gumball dispenser design following consultation with your teacher.

FOLIO COMPONENT:

Create a design folio that shows the steps in designing, making and evaluating your technology project. The design folio is to be produced using computing software with the exception of some drawings, which should be "hand-drawn". The folio must be submitted as a hard copy in plastic sleeve and including the following sections:

	Section	Explanation	Done?	Progress Check
Of	(1.1) Title Page	Include the name of the project/product, your name, teachers name and class		Due Date: Parent Sign:
	(1.2) Design Situation	In four or more sentences, explain the design problem that needs to be solved.		Teacher Sign:
	(1.3) Design Situation	In one or more sentences, describe what you are required to do as "the designer".		
.	(2.1) Limitations	Identify and explain FIVE (5) or more limitations or boundaries that will apply when developing your Gumball Machine		Due Date: Parent Sign:
	(2.2) Criteria for success	Identify and explain FIVE (5) or more criteria to determine the success of your project.		Teacher Sign:
	(2.3) Time Management	Develop a computer generated Gantt chart detailing the order and timing of each design process stage and construction step in the creation of your project		Due Date: Parent Sign: Teacher Sign:
	(3.0) Research	Using a <i>wide variety</i> (FOUR OR MORE) of resources, report on the following 3.1.1 Innovation and Emerging Technology Many items that were once made from timber are now made with other materials. Examples include boats, sporting bats and car parts. Select ONE (1) item that was historically made from timber, but is now made from another material (or combination of materials) <u>Report</u> on the historical use and development of timber by answering the questions below: i. Outline the historical developments of the item in the form of a timeline ii. Create a venn diagram that highlights the features of a product historically made from timber and compare this to its new material. iii. Explain how the evolution of this item has impacted both society and the environment. You must consider both the positive and negative impacts.		Due Date: Parent Sign: Teacher Sign:
	(3.2) Current designs	3.2.1 Identify TWO (2) or more other gumball machine designs, providing a picture of each 3.2.2 Evaluate the features of each design by listing what you like (positive), what you don't like (negative) and present this in a table		Due Date: Parent Sign: Teacher Sign:

	(3.3) Possible Tools	<p>3.3.1 Identify THREE (3) possible tools that may be used to make your gumball machine and provide a picture of each</p> <p>3.5.2 For each tool, describe what it is used for and how you intend to use it while completing your gumball</p> <p>3.5.3 For each tool, Identify at least TWO (2) safety procedures when using each tool</p> <p>Present 3.3 as a table</p>		<p>Due Date:</p> <p>Parent Sign:</p> <p>Teacher Sign:</p>
	(3.4) Evidence of research	<p>Provide a minimum TWO (2) statements that give evidence of decision-making based on all research findings. For example:</p> <ul style="list-style-type: none"> As a result of research it has been found that Radiata pine would be the best timber for my project because... 		<p>Due Date:</p> <p>Parent Sign:</p> <p>Teacher Sign:</p>
	(4.1) Ideas	<p>Sketch (hand drawn) TWO (2) annotated (labelled) pictures of possible designs of your project. You can only use lead pencil in your sketches</p>		<p>Due Date:</p> <p>Parent Sign:</p> <p>Teacher Sign:</p>
	(4.2) Idea selection	<p>4.2.1 Select ONE (1) sketched idea to construct.</p> <p>4.2.2 Justify your choice by providing TWO (2) or more reasons for selecting the idea by referring to the criteria for success for guidance</p>		<p>Teacher Sign:</p>
	(5.1) Evaluation	<p>Evaluate your project using the following headings:</p> <p>5.1.1 Function</p> <p>5.1.2 Aesthetics</p> <p>For each heading, explain areas of success and areas where you face set backs and provide areas to improve if you were to construct the same project again.</p>		<p>Due Date:</p> <p>Parent Sign:</p> <p>Teacher Sign:</p>
	(5.2) Bibliography	<p>You must include a list of sources used to complete your folio, particularly that of the research section.</p>		<p>Due Date:</p> <p>Parent Sign:</p> <p>Teacher Sign:</p>

Assessment Criteria: Design Project

4.1.1: Applies design processes that respond to needs and opportunities in each design project

Level of achievement	Indicators
A 9 - 10	<input type="checkbox"/> The student has comprehensively completed all aspects of the design folio as identified in the Design Folio scaffold to an excellent level. <input type="checkbox"/> All components of the design folio have been communicated in a clear and logical manner, demonstrating excellent understanding of the design process as used by designers.
B 7 - 8	<ul style="list-style-type: none">- The student has completed all aspects of the design folio as identified in the Design Folio scaffold.- Some small inaccuracies exist in the order of the design folio, demonstrating a high understanding of the design process.
C 5 - 6	<ul style="list-style-type: none">- The student has completed most aspects of the design folio as identified in the Design Folio scaffold.- The design folio generally demonstrates an understanding of the design process, as it is presented mostly in a logical order.
D 3 - 4	<ul style="list-style-type: none">- The student has completed some aspects of the design folio as identified in the Design Folio scaffold.- The design folio demonstrates some understanding of and consideration for a design process. The folio is ordered correctly in only a few areas.
E 1 - 2	<ul style="list-style-type: none">- The student has completed limited aspects of the design folio as identified in the Design Folio scaffold.- The design folio is out of order and demonstrates little awareness of the correct design process.

4.2.2 selects, analyses, presents and applies research and experimentation from a variety of sources

Level of achievement	Indicators
A 9 - 10	<ul style="list-style-type: none">• The student has achieved a very high level of competence in selecting, analyzing, presenting and applying research and experimentation.• Student provided a highly detailed level of research.• Student has located relevant research information from FOUR or more (wide variety) of different sources (ie. books, internet, magazines, surveys, interviews etc).• Research and analysis is very well presented through the use of tables, graphs and various fonts.
B 7 - 8	<ul style="list-style-type: none">• The student has achieved a high level of competence in selecting, analysing, presenting and applying research and experimentation.• Student has provided detailed research.• Student has located relevant research information from THREE different sources.• Research and analysis is well presented through the use of tables, graphs and various fonts.
C 5 - 6	<ul style="list-style-type: none">• The student has achieved an adequate level of competence in selecting, analysing, presenting and applying research and experimentation.• Student has provided adequate.• Student has located researched information from TWO sources.• Research and analysis is presented at a satisfactory level through the use of tables and various fonts.
D 3 - 4	<ul style="list-style-type: none">• The student has achieved a limited level of competence in selecting, analyzing, presenting and applying research and experimentation.• Student has provided limited research.• Student has located research information from ONE source.• Research and analysis is presented at a basic level.
E 1 - 2	<ul style="list-style-type: none">• The student has achieved a very limited level of competence in selecting, analysing, presenting and applying research and experimentation.• Student has provided little to no evidence of research.• Student has provided little to no evidence of appropriate research.• Research and analysis is presented at a basic level.

4.4.1 explains the impact of innovation and emerging technologies on society and the environment.

Level of achievement	Indicators
A 9 - 10	Student has provided a COMPREHENSIVE explanation of how the evolution of timber item has impacted both society and the environment. Consider both the positive and negative impacts.
B 7 - 8	Student has provided a DETAILED explanation of how the evolution of timber item has impacted both society and the environment. Consider both the positive and negative impacts.
C 5 - 6	Student has provided a BASIC description of how the evolution of timber item has impacted either society or the environment. Some basic positive and negative impacts mentioned.
D 3 - 4	Student has provided a LIMITED description of timber product and provides basic research about characteristics and uses
E 1 - 2	Student has provided a VERY LIMITED explanation, listing little to no description of timber product and provides limited research about characteristics and uses

Assignment Overall Mark and Grade

Overall Mark	A	B	C	D	E	Overall Grade				
/30	30-25	24-19	18-13	12-7	6-0	A	B	C	D	E