

Design marking guide and response

External assessment 2022

Examination — Design challenge (34 marks)

Assessment objectives

This assessment instrument is used to determine student achievement in the following objectives:

2. represent ideas, and a sustainable design concept using schematic sketching and/or ideation sketching in the develop phase
4. devise ideas using divergent thinking strategies in response to a redesign problem in the develop phase
5. synthesise ideas and sustainability information to propose a sustainable design concept in the develop phase
6. evaluate the strengths, limitations and implications of ideas against design criteria and make refinements.

Note: Objectives 1, 3 and 7 are not covered in this assessment.

Purpose

This document consists of a marking guide and a sample response.

The marking guide:

- provides a tool for calibrating external assessment markers to ensure reliability of results
- indicates the correlation, for each question, between mark allocation and qualities at each level of the mark range
- informs schools and students about how marks are matched to qualities in student responses.

The sample response:

- demonstrates the qualities of a high-level response
- has been annotated using the marking guide.

Mark allocation

Where a response does not meet any of the descriptors for a question or a criterion, a mark of '0' will be recorded.

Where no response to a question has been made, a mark of 'N' will be recorded.

Marking guide

Criterion: Devising ideas

Divergence of ideas		Attributes of ideas	
The response:	M	The response:	M
<ul style="list-style-type: none">shows a wide range of ideas from divergent points of view, in response to the problem	5	<ul style="list-style-type: none">shows ideas with unique, credible, and detailed attributes that demonstrate a perceptive response to the stimulus and design criteria	5
<ul style="list-style-type: none">shows a range of ideas from divergent points of view, in response to the problem	4	<ul style="list-style-type: none">shows ideas with credible and detailed attributes that demonstrate a purposeful response to the stimulus and design criteria	4
<ul style="list-style-type: none">shows a range of ideas, in response to the problem	3	<ul style="list-style-type: none">shows ideas with credible attributes in an appropriate response to the stimulus and design criteria	3
<ul style="list-style-type: none">shows ideas superficially devised in response to the problem	2	<ul style="list-style-type: none">shows ideas with superficial attributes in response to the stimulus	2
<ul style="list-style-type: none">states suggestions in response to the problem	1	<ul style="list-style-type: none">states stimulus information that relates to the ideas	1
<ul style="list-style-type: none">does not satisfy any of the descriptors above.	0	<ul style="list-style-type: none">does not satisfy any of the descriptors above.	0

Criterion: Evaluating and refining

Evaluation of ideas		Refinement of ideas	
The response:	M	The response:	M
<ul style="list-style-type: none"> provides a critical evaluation of ideas against all design criteria 	5	<ul style="list-style-type: none"> shows discerning refinement of ideas based on judgments related to all criteria 	5
<ul style="list-style-type: none"> provides a reasoned evaluation of ideas against all design criteria 	4	<ul style="list-style-type: none"> shows effective refinement of ideas based on judgments related to at least two criteria 	4
<ul style="list-style-type: none"> provides a feasible evaluation of ideas against at least two design criteria 	3	<ul style="list-style-type: none"> shows adequate refinement of ideas based on judgments related to at least one criterion 	3
<ul style="list-style-type: none"> provides a superficial evaluation of ideas against at least one design criterion 	2	<ul style="list-style-type: none"> shows superficial refinement of ideas based on judgments related to at least one criterion 	2
<ul style="list-style-type: none"> provides statements about ideas 	1	<ul style="list-style-type: none"> shows changes to the ideas 	1
<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0

Criterion: Synthesising a design concept

The response:	M
<ul style="list-style-type: none">• proposes an innovative circular design concept that<ul style="list-style-type: none">– includes a coherent and logical combination of attributes drawn from multiple ideas and stimulus information– satisfies all design criteria	5
<ul style="list-style-type: none">• proposes a credible circular design concept that<ul style="list-style-type: none">– includes a logical combination of ideas and stimulus information– satisfies at least two design criteria	4
<ul style="list-style-type: none">• proposes a simple circular design concept that<ul style="list-style-type: none">– combines ideas and stimulus information– satisfies at least one design criterion	3
<ul style="list-style-type: none">• proposes a rudimentary design concept that<ul style="list-style-type: none">– reproduces a single idea– satisfies at least one design criterion	2
<ul style="list-style-type: none">• shows a partial design concept in response to the problem	1
<ul style="list-style-type: none">• does not satisfy any of the descriptors above.	0

Criterion: Representing

Representing ideas		Representing the design concept	
The response:	M	The response:	M
<ul style="list-style-type: none"> • shows sophisticated representation of ideas by using: <ul style="list-style-type: none"> – elements and principles of visual communication to differentiate between critical and non-critical attributes in ideation and schematic sketching of ideas – fluent combinations and sequences of related sketches to easily and readily show detail in the progression of understanding of ideas 	5	<ul style="list-style-type: none"> • shows sophisticated sketching of a design concept by using elements and principles of visual communication to differentiate between its critical and non-critical attributes 	4
<ul style="list-style-type: none"> • shows considered representation of ideas by using <ul style="list-style-type: none"> – elements and principles of visual communication to represent the attributes of ideas in ideation and schematic sketching – proficient sequences of related sketches to show the progression of understanding of ideas. 	4	<ul style="list-style-type: none"> • shows considered sketching of a design concept by using elements and principles of visual communication to represent its attributes 	3
<ul style="list-style-type: none"> • shows appropriate use of <ul style="list-style-type: none"> – elements and principles of visual communication in ideation and schematic sketching of ideas – sketches that show the progression of understanding of ideas across the pages. 	3	<ul style="list-style-type: none"> • shows appropriate sketching of a design concept by using line, shape, form, proportion and scale 	2
<ul style="list-style-type: none"> • shows cursory use of sketching to show understanding of ideas 	2	<ul style="list-style-type: none"> • shows cursory sketching of a design concept 	1
<ul style="list-style-type: none"> • shows illogical use of sketching to represent ideas or relies on written text descriptions 	1	<ul style="list-style-type: none"> • does not satisfy any of the descriptors above. 	0
<ul style="list-style-type: none"> • does not satisfy any of the descriptors above. 	0		



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