Design 2019 v1.2

IA3: Sample assessment instrument

Extended response — project (25%)

This sample has been compiled by the QCAA to assist and support teachers in planning and developing assessment instruments for individual school settings.

This assessment instrument has been designed to be completed over a duration of six weeks.

Student name

Student number

Teacher

Issued

Due date

Marking summary

Criterion	Marks allocated	Provisional marks
Exploring	7	
Devising	5	
Synthesising and evaluating	5	
Representing and communicating	8	
Overall	**25**	

Conditions

Technique	Extended response — project
Unit	Unit 4: Sustainable design
Topic/s	Topic 1: Explore — sustainable design opportunities Topic 2: Develop — redesign
Duration	—
Mode/length	Part A — visual documentation of the design process: • Multimodal: 8–10 A3 pages Part B — written design brief and criteria: • Written: One A3 page (maximum 300 words) Part C — design proposal for stakeholders: • Multimodal: One A3 page
Individual/group	Individual

Context

The context of this project is sustainable design. Fundamental to sustainable design is the principle that designers should create new designs that can be supported indefinitely in terms of their economic, social and ecological impact on the wellbeing of humans.

Products, services and environments are often designed for a specific purpose that limits their useful life, e.g. marketing materials for a cultural celebration or event.

Task

Respond to the following question: How can products, services and environments be redesigned to extend their useful life beyond their original intended purpose?

You are required to:

- identify an opportunity to redesign a product, service or environment to improve its sustainability
- apply the design process to explore and develop the opportunity
- use circular design methods to improve the economic, social or ecological sustainability of your design concept.

To complete this task, you must:

Part A — Visual documentation of the design process

- represent ideas, a sustainable design concept and sustainability information using schematic sketching and ideation sketching and/or low-fidelity prototyping in the explore and develop phases
- analyse the redesign opportunity, existing designed solutions and sustainability information
- devise ideas in response to the problem using divergent thinking strategies and circular design methods in the develop phase of the design process
- synthesise ideas and sustainability information to propose a sustainable design concept
- evaluate the strengths, limitations and implications of ideas and a sustainable design concept against the design criteria to make refinements that improve ideas including
  - written or spoken notes referenced to relevant drawings and/or low-fidelity prototypes
  - changes or amendments to drawings and/or low-fidelity prototypes
- provide evidence of primary sources, acknowledgment of secondary sources (references for images and text) and documentation of progressive development.

Part B — Written design brief and criteria

- describe
  - the features and sustainable requirements that define the redesign problem
  - design criteria based on requirements and the principles of good design
- communicate using written features, design language and conventions.

Part C — Design proposal for stakeholders

- evaluate how well the sustainable design concept satisfies the design criteria
- communicate a visual presentation of the design concept using illustrations that may be supported by photographs or video of low-fidelity prototypes.

Checkpoints

☐ Submit draft of Part B — Written design brief and criteria. Date: ……...

☐ Submit draft of Part A — Visual documentation of the design process, including evidence of the explore and develop phase of the design process. Date: ……...

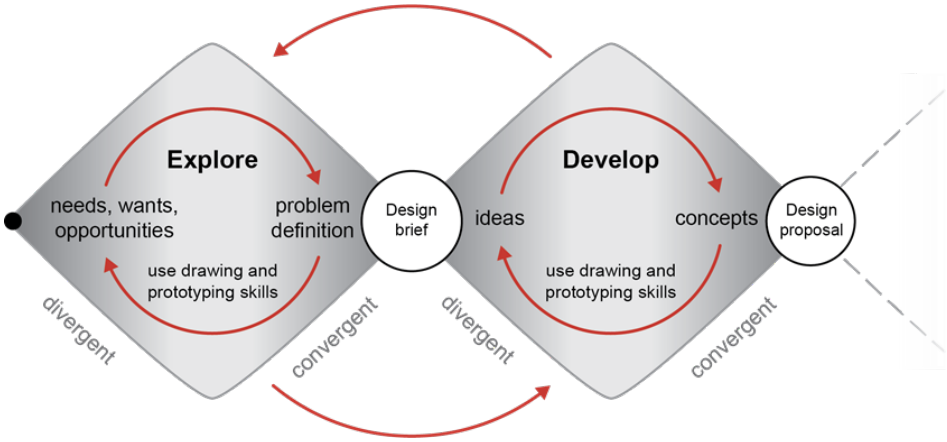
☐ Submit draft of Part C — Design proposal for stakeholders. Date: ……...

Authentication strategies

- Students must acknowledge all sources.
- Students will produce summaries during the response preparation.
- The teacher will conduct interviews after submission to clarify or explore aspects of the response.

Scaffolding

In Design, a project involves students applying the explore and develop phases of the design process.



Instrument-specific marking guide (IA3): Extended response — project (25%)

Criterion: Exploring

Assessment objectives

1. describe the features and sustainable requirements that define a redesign problem and design criteria based on the requirements of the opportunity and the principles of good design
3. analyse redesign opportunities using data about existing designed solutions and sustainability information

The student work has the following characteristics:	Marks
• discerning description of features and sustainable requirements that define a redesign problem and essential design criteria based on the requirements of the opportunity and the principles of good design • insightful analysis of redesign opportunities using relevant data about existing designed solutions and sustainability to identify the significant features, constraints and the relationships between them	6–7
• adequate description of features and sustainable requirements that define a redesign problem and some design criteria based on the requirements of the opportunity and the principles of good design • appropriate analysis of redesign opportunities using data about existing designed solutions and sustainability to identify some features and constraints	4–5
• superficial description of a redesign problem with sustainable requirements and some design criteria • superficial analysis of redesign opportunities to identify some partial features	2–3
• description of aspects of a redesign problem • statements about opportunities	1
• does not satisfy any of the descriptors above.	0

Criterion: Devising

Assessment objectives

4. devise ideas using divergent thinking strategies and circular design methods in response to a redesign problem in the develop phase

The student work has the following characteristics:	Marks
• multiple ideas perceptively devised from different points of view — with each idea incorporating unique, credible and detailed attributes — using divergent thinking strategies and circular design methods in response to a redesign problem in the develop phase	4–5
• ideas appropriately devised — with each idea incorporating credible and detailed attributes — using a divergent thinking strategy and aspects of circular design methods in response to a redesign problem in the develop phase	2–3
• ideas disjointedly devised in response to aspects of a redesign problem	1
• does not satisfy any of the descriptors above.	0

Criterion: Synthesising and evaluating

Assessment objectives

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 and a sustainable design concept against design criteria to make refinements

The student work has the following characteristics:	Marks
• coherent and logical synthesis by combining attributes of multiple ideas and sustainability information to propose an innovative sustainable design concept in the develop phase • critical evaluation of the strengths, limitations and implications of ideas and a sustainable design concept against design criteria to make discerning refinements that improve ideas and the sustainable design concept	4–5
• simple synthesis by combining ideas and sustainability information to propose a sustainable design concept • feasible evaluation of the strengths and limitations of ideas and sustainable design concept against some design criteria to make adequate refinements	2–3
• unclear combination of ideas • make statements about ideas or the sustainable design concept	1
• does not satisfy any of the descriptors above.	0

Criterion: Representing and communicating

Assessment objectives

2. represent ideas, a sustainable design concept and sustainability information using schematic sketching and ideation sketching and/or low-fidelity prototyping in the explore and develop phases
7. make decisions about and use visual, written and/or spoken communication to present a design brief and visual display of a design proposal for stakeholders.

The student work has the following characteristics:	Marks
• sophisticated representation of ideas, a design concept and sustainability information using fluent sequences of schematic sketching and ideation sketching and/or low-fidelity prototyping to progress understanding in the explore and develop phases • discerning decision-making about, and fluent use of, – illustrations and/or low-fidelity prototypes to promote a design opportunity with sustainable attributes for relevant stakeholders – written and/or spoken conventions, features and design-specific language to present a design brief for a specified audience	7–8
• considered representation of ideas, a design concept and sustainability information using proficient schematic sketching and ideation sketching and/or low-fidelity prototyping to progress understanding in the explore and develop phases • effective decision-making about, and proficient use of, – illustrations and/or low-fidelity prototypes to promote a design opportunity with sustainable attributes for relevant stakeholders – written and/or spoken conventions, features and design-specific language to present a design brief for a specified audience	5–6
• appropriate representation of ideas, a design concept and sustainability information using schematic sketching and ideation sketching and/or low-fidelity prototyping in the explore and develop phases • appropriate decision-making about and use of – illustrations and/or low-fidelity prototypes to promote a design opportunity – written and/or spoken conventions and features to present a design brief	3–4
• cursory representation of ideas and information using unclear sketching or low-fidelity prototyping in the design process • variable decision-making about, and inconsistent use of, – illustrations and/or low-fidelity prototypes – written and/or spoken conventions	1–2
• does not satisfy any of the descriptors above.	0