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External assessment marking guide (EAMG)

Extended response — Question 1 (28 marks)

Criterion: **Devising ideas using divergent thinking in response to a redesign problem**

The response:	M
<ul style="list-style-type: none">shows a wide range of ideas, from more than one point of view, perceptively devised with unique, credible and detailed attributes in response to the problem	9
<ul style="list-style-type: none">shows a range of ideas, from more than one point of view, perceptively devised with unique, credible and detailed attributes in response to the problem	8
<ul style="list-style-type: none">shows a wide range of ideas, from more than one point of view, purposefully devised with credible and detailed attributes in response to the problem	7
<ul style="list-style-type: none">shows a range of ideas, from more than one point of view, purposefully devised with credible and detailed attributes in response to the problem	6
<ul style="list-style-type: none">shows a range of ideas, purposefully devised with credible and detailed attributes in response to the problem	5
<ul style="list-style-type: none">shows a range of ideas, appropriately devised with credible attributes in response to the problem	4
<ul style="list-style-type: none">shows a range of ideas, appropriately devised with credible attributes in response to aspects of the problem <p style="text-align: center;">OR</p> <ul style="list-style-type: none">shows an idea with credible and detailed attributes in response to the problem	3
<ul style="list-style-type: none">shows a range of ideas, superficially devised in response to aspects of the problem <p style="text-align: center;">OR</p> <ul style="list-style-type: none">shows an idea with credible attributes in response to aspects of the problem	2
<ul style="list-style-type: none">shows one or more ideas in response to aspects of the problem	1
<ul style="list-style-type: none">does not satisfy any of the descriptors above.	0

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Notes

Ideas: in the divergent phase, thoughts about possible ways of responding to the problem; evidenced by sketches that may include annotations.

Ideas in response to the problem relate to the:

- changes to the food or packaging coming to school in lunch boxes
- separation of waste at the point of disposal, e.g. organic and packaging material are not placed together in a bin
- restriction of animal access to waste restricted
- management of different types of collected waste considering their properties, e.g. management of their time in landfill
- waste management proposed being influenced by decisions at the local level (school) and beyond (broader community)
- use of circular design methods to
 - increase positive impacts related to organic and packaging waste
 - reduce or eliminate negative impacts of waste, e.g. by recycling, reducing landfill
- needs or wants of stakeholders related to any of the following: aesthetic, cultural, economic, social, technical
- instructions for correct use of the new bins, e.g. which waste items go where
- launch of the design opportunity considered, e.g. promotion of the new bins
- ongoing successful use of the bins predicted in relation to any of the following: function, quality, desirability.

Points of view: different ways of solving the problem; ideas are not all versions of the same central thought.

Examples of points of view include ideas that focus on:

- separating the organic and packaging material
- changing the form of a bin
- promoting the bins
- reducing the need for the bins.

Unique: different in some way from common use or as represented in the stimulus.

Examples of unique attributes include:

- transformation: a re-creation of something; it may have some attributes of the original work, but cannot be said to still be that kind of product, e.g. an oversized bottle transformed into a bin to collect bottles
- modification: an adaptation, alteration or combination of something; it can be a change that retains either the form or purpose of the original work, e.g. a composting container modified to be a composting bin.

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Criterion: Evaluating ideas and making refinements

The response:	M
• shows discerning refinement of ideas based on judgments about the critical strengths, limitations and implications of attributes of ideas, using all design criteria	6
• shows effective refinement of ideas based on judgments about the logical strengths and limitations of ideas, using all design criteria	5
• shows adequate refinement of ideas based on judgments about the feasible strengths and limitations of ideas, using design criteria	4
• shows adequate refinement of ideas based on judgments about the feasible strengths and limitations of ideas, using some design criteria	3
• shows superficial refinement of ideas based on identified strengths or limitations of ideas, using some design criteria	2
• shows changes to ideas related to the design criteria	1
• does not satisfy any of the descriptors above.	0
Notes	
Discerning refinement is evidenced by changes to sketches with supporting annotations in the convergent phase.	
Discerning: selecting ideas and attributes of ideas for value or relevance.	
Implications: possible outcome if the attribute of an idea is used, e.g. if the bin is in the form of a bottle, this might encourage use, but may limit the types of rubbish placed in it.	
Critical: noting the significance of particular attributes of ideas in relation to the criteria.	

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Criterion: **Synthesising to propose a design concept**

The response:	M
<ul style="list-style-type: none"> • shows an innovative design concept that <ul style="list-style-type: none"> – includes a coherent and logical combination of attributes of multiple ideas and stimulus information – satisfies all design criteria 	7
<ul style="list-style-type: none"> • shows an innovative design concept that <ul style="list-style-type: none"> – includes a logical combination of attributes of multiple ideas and stimulus information – satisfies all design criteria 	6
<ul style="list-style-type: none"> • shows a credible design concept that <ul style="list-style-type: none"> – includes a logical combination of ideas and stimulus information – satisfies all design criteria 	5
<ul style="list-style-type: none"> • shows a credible design concept that <ul style="list-style-type: none"> – includes a simple combination of ideas and stimulus information – satisfies all design criteria <p style="text-align: center; margin: 10px 0;">OR</p> <ul style="list-style-type: none"> • shows an innovative design concept that <ul style="list-style-type: none"> – includes a simple combination of ideas and stimulus information – satisfies some design criteria 	4
<ul style="list-style-type: none"> • shows a design concept that <ul style="list-style-type: none"> – includes a simple combination of ideas and stimulus information – satisfies some design criteria 	3
<ul style="list-style-type: none"> • shows a design concept that <ul style="list-style-type: none"> – includes a simple idea and stimulus information – satisfies some design criteria 	2
<ul style="list-style-type: none"> • shows a partial design concept that satisfies some design criteria 	1
<ul style="list-style-type: none"> • does not satisfy any of the descriptors above. 	0

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Notes

A design concept is evidenced by a sketch with related labels.

Innovative: design concept has a unique attribute related to transformation or modification influenced by an earlier idea.

Coherent: having a natural harmonious relation of parts; having a well-structured layout with an internally consistent relation of parts.

Logical: reasoned, rational and valid; proposing a clear decision in response to the school rubbish bin problem.

Stimulus information about the school rubbish bin problem may include:

- improving ecological management of waste in the school
- increasing positive impacts of organic and packaging waste
- encouraging people to use bins
- or information to that effect.

Design criteria:

- Improve the ecological management of waste from organic and packaging material.
- Focus on increasing positive impacts rather than reducing negative impacts of waste.
- Encourage people to use the redesigned bins appropriately.

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Criterion: **Representing ideas and a design concept**

The response:	M
<ul style="list-style-type: none"> • indicates sophisticated use of <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 and a design concept – sequences of related sketches to easily and readily show the progression of understanding of ideas 	6
<ul style="list-style-type: none"> • indicates considered use of <ul style="list-style-type: none"> – elements and principles of visual communication to differentiate between attributes in ideation and schematic sketching of ideas and a design concept – sequences of related sketches to show the progression of understanding of ideas 	5
<ul style="list-style-type: none"> • indicates appropriate use of ideation and schematic sketching of ideas and a design concept with labels and either 1 of the following <ul style="list-style-type: none"> – elements and principles of visual communication to differentiate between attributes <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> – sketches to show the progression of understanding of ideas 	4
<ul style="list-style-type: none"> • indicates appropriate use of <ul style="list-style-type: none"> – ideation sketching and schematic sketching – labels 	3
<ul style="list-style-type: none"> • indicates cursory use of <ul style="list-style-type: none"> – ideation or schematic sketching – labels 	2
<ul style="list-style-type: none"> • indicates illogical use of unclear ideation or schematic sketching 	1
<ul style="list-style-type: none"> • does not satisfy any of the descriptors above. 	0

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Notes

Sophisticated: intellectual complexity; employing advanced methods such as:

- combinations and sequences of ideation and schematic sketches to think through an idea
- arrows, boxes, circles and connecting lines that represent relationships between information, attributes of ideas and different ideas
- elements and principles of visual communication, including line, tone, colour, shape, contrast, proximity and hierarchy, e.g. using a colour to indicate differences in the use of a bin
- labels that add value beyond the visual information.

Fluent: visually articulate; highly developed.

Considered: formed after careful and deliberate thought.

Proficient: competent, skilled or adept in sketching.

Appropriate: suitable or fit for purpose; sketches that suit the context of the design problem.

Cursory: drawn with little attention to detail.