Project Summary

Title: A2 – Creative Constraints Challenge Sketches + Rationale_(10%)
Due Date: Due week 4

Please note: This is an OUTLINE only - clarification will be provided in class.

Introduction

This assignment is part of the larger *Creative Constraints Challenge* project, in which students respond to a design limitation using only a fixed set of materials and one unexpected rule. While the physical object is built and presented as part of Project 1, this assignment focuses on the **design thinking and theoretical grounding** behind that response.

Through early sketch development and written reflection, students will explore how **constraints can drive creativity** and how different forms of thinking, such as **divergent and convergent processes**, influence design outcomes. By connecting their ideas to creativity theory and explaining their rationale, students gain deeper insight into how abstract limitations can generate purposeful, intentional design. This written and visual component supports not only the clarity of concept but also reinforces the role of theory in guiding practical design decisions.

Project Requirements

To complete this assignment successfully, students will document the early ideation process and provide a written rationale linking their concept to creativity theory. This assignment supports the *Creative Constraints Challenge* by articulating the thinking behind the final design.
(Creativity Kit 3 sheets of cardboard, 1 metre of string, 10 paper clips, w or tape, One wildcard item (randomized per team or individual))

1. **Develop Initial Design Concept**

   • Create sketches that show how your object or installation will respond to the assigned constraint.
   • Include a minimum of **three ideation sketches,** showing iteration or variation.
   • Sketches may be digital or hand-drawn but must be clear, labelled, and intentional.
   • The object must be useful beyond art or pure aesthetics

2. **Write a One-Page Rationale**

   • Describe the assigned constraint and how it shaped your design direction.
   • Identify whether you used **divergent, convergent, or another form of creative thinking** in your process.
   • Connect your approach to at least **one theory or theorist** (e.g., Torrance, Csikszentmihalyi, constraint-based creativity).
   • Explain the intended **purpose** of your design—what need it responds to beyond aesthetic exploration.

3. **Ensure Clarity and Alignment**

   • The sketches and rationale should clearly align. Avoid generic explanations.
   • Demonstrate intentional use of creativity theory and reflective thinking in how your concept developed.

Submission Checklist

Please use the following list to ensure your submission meets the project expectations. Missing elements may impact your grade.

Format and File

☐ Minimum three concept sketches included (labelled and legible)

☐ One-page written rationale, typed and proofread

☐ Submitted as a single PDF

☐ Saved as: INDE1010 A2 Creative Constraints YourName.pdf

Content

☐ Constraint is clearly stated and integrated in the design concept

☐ Sketches show iteration and thoughtful development

☐ Rationale includes a connection to a creativity theory or theorist

☐ Thinking style (e.g., divergent/convergent) is identified and explained

☐ Clear explanation of the design's purpose beyond aesthetics or art, the object must serve a functional or conceptual use

Submission

☐ Uploaded to Blackboard by the due date (Week 4)

☐ All checklist items reviewed prior to submission

☐ AI writing tools may be used to assist with writing only. You must generate all ideas and analysis yourself. You may be asked to verbally defend your work; failure to demonstrate ownership of your thinking will result in a grade of zero.

Evaluation Criteria - 20% of Final Grade

Assessment is based on the attached grading rubric.

- Level 3/4 (Accomplished – 75%): Completes all required work to standard

Level 4/4 (Mastery – 85%–100%): Demonstrates exceptional understanding, includes additional research, connects work to standards, delivers outstanding presentation, and shows evidence of critical self-reflection.

Course Outcomes

CLO 1: Differentiate, interpret, and manipulate the elements and principles of design
– Achieved by requiring students to develop and sketch design concepts using form, balance, space, and texture to respond to a constraint, reinforcing core design principles through visual exploration.

CLO 2: Explain design criteria and rationale for making design judgements through the iterative process
– Achieved by having students articulate how the constraint informed their design choices, supported by written rationale and evidence of idea development through sketching and iteration.

CLO 4: Identify and define the flexible elements of design and the changeable qualities of composition
– Achieved through analysis of how the constraint affected compositional decisions in their concept, demonstrating how elements adapt based on rules or limits.

CLO 7: Manipulate spatial quality through the study of abstract form to communicate theories and respond to design criteria
– Achieved as students explore how abstract limitations shape form and spatial quality, linking creative response to theoretical frameworks such as constraint-based creativity.

CIDA Standards

Standard 11. Design Elements and Principles

a) Students understand the elements and principles of design and related theories, including spatial definition and organization.
Proof: Students explore spatial relationships and compositional strategies through ideation sketches, applying principles like form, rhythm, scale, and proportion in response to a constraint.
c) Students effectively apply the elements and principles of design and related theories to two-dimensional design solutions.
Proof: The assignment requires students to communicate their design intent through labelled sketches, showing how visual logic and spatial theory translate into 2D conceptual work.

Standard 12. Light and Color

f) Student work demonstrates understanding of color principles, theories, systems, and terminology.
Proof: Students consider the role of colour within their concept, using basic terminology to describe how it contributes to emphasis, unity, or user engagement even when colour options are limited.
g) Student work demonstrates understanding of color in relation to materials, textures, light, and form.
Proof: Students reflect on how colour interacts with the tactile and spatial aspects of their design, highlighting material contrasts or enhancing form through light and shadow.
h) Student work demonstrates the ability to appropriately select and apply color to support design purposes.
Proof: Colour is selected and applied strategically within constraints to support the conceptual aim of the design, reinforcing functional or symbolic aspects of the object.

Rubric: Creative Constraints – Assignment 2

Criterion	Level 1 (Limited)	Level 2 (Developing)	Level 3 (Accomplished)	Level 4 (Mastery)	Weight
File & Submission Requirements	File is incorrectly named, late, or submitted in the wrong format.			Flawless submission: correct naming, format, and upload. Layout and image guidelines followed.	1
Sketch Development	Sketches are missing, unclear, or unlabeled; no evidence of iteration.	Basic sketches included limited variation or refinement shown.	Three clear sketches showing iteration and thoughtful exploration.	Sketches are detailed, purposeful, and demonstrate strong visual thinking and iteration.	4

Integration of Constraint	No clear connection between sketches and assigned constraint.	Constraint is mentioned but weakly addressed in design concept.	Design concept responds clearly to constraint in form and/or function.	Constraint is creatively and meaningfully embedded in the concept and sketch development.	4
Written Rationale – Clarity & Structure	Rationale is unclear, unfocused, or incomplete.	Rationale is present but lacks clarity, organization, or specificity.	Rationale is clear and organized; it supports the design concept with relevant explanation.	Rationale is concise, well-structured, and communicates insight with clarity and precision.	4
Connection to Creativity Theory	No mention of theory or theoretical connection is incorrect or irrelevant.	Basic mention of theory but not fully explained or applied.	At least one theorist or concept is clearly linked to the design thinking.	Creativity theory is well integrated, offering insight into the student's process and concept development.	4
Thinking Style Identification	Thinking approach (e.g., divergent/convergent) is not identified or explained.	Thinking style is identified but not clearly connected to the design process.	Thinking style is correctly identified and reasonably supported by the design approach.	Thought style is clearly articulated and supported with strong evidence from the design process.	4
			Total		20

Note: The object must have a purpose beyond aesthetics or art. It should respond to a real or imagined functional need, interaction, or environmental condition.

Final Insights

STOP:

START:

CONTINUE: