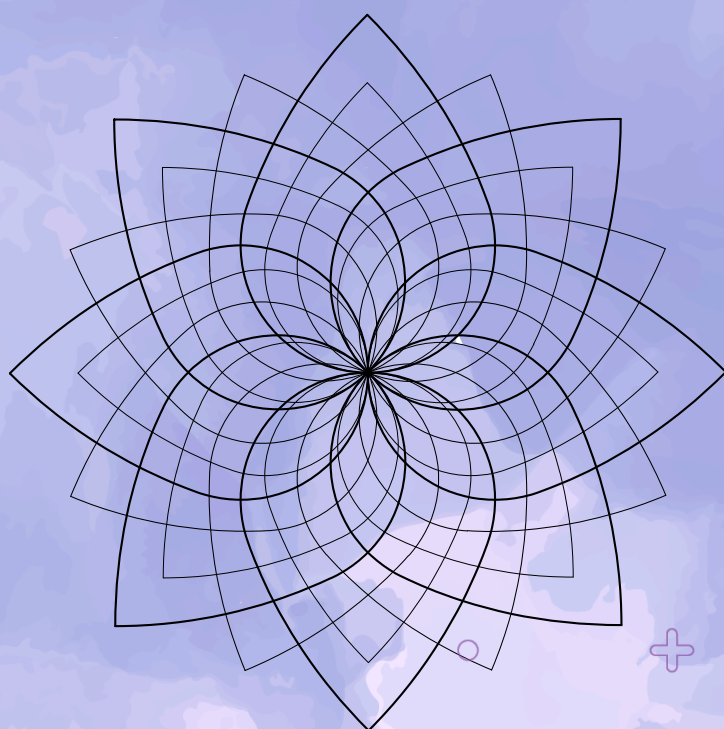


# Design Thinking and Innovation

for Grade 7

Task-book

2022



Task-book

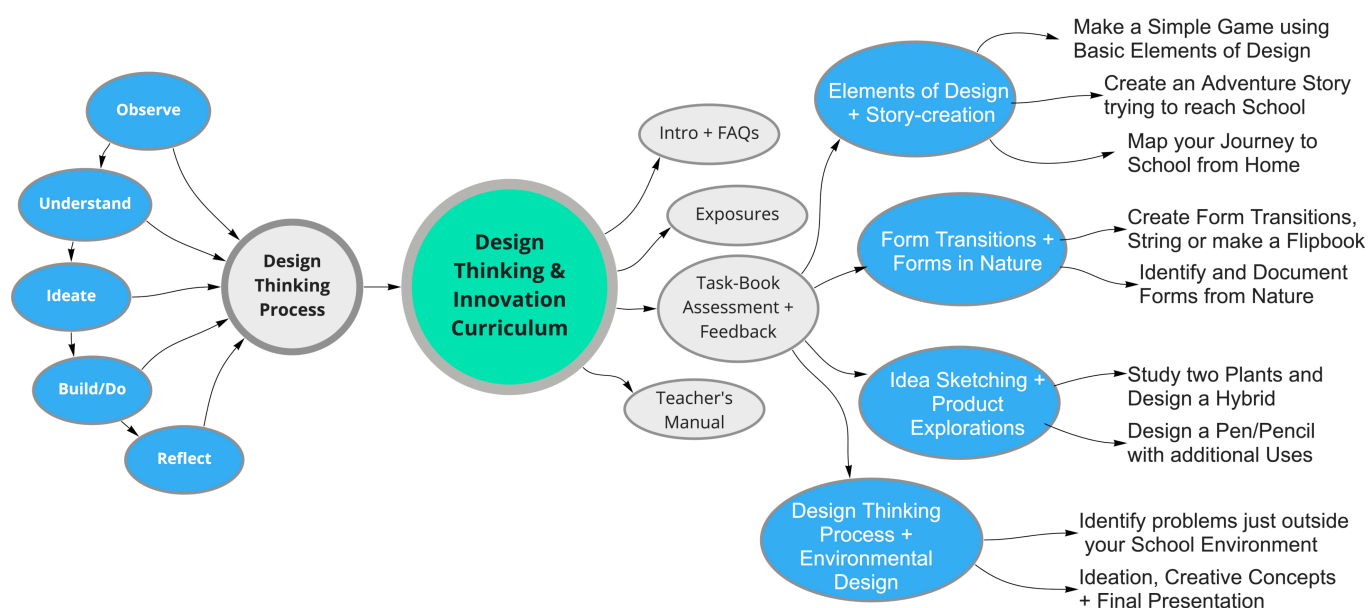
CBSE, New Delhi

# Design Thinking and Innovation Curriculum for Grade 7

## Contents:

Module Contents	No.	Type	Module Title	Time	Grade	Page No.
	0.0		Introduction and Overview			2
	1.0	Design Sensitivity Design Skills	Elements of Design + Story-creation	3 hours	3 credits	7
	2.0	Design Sensitivity Design Skills	Exploring Form Transitions + Discovery of Forms in Environment	3 hours	3 credits	12
	3.0	Design Sensitivity Design Skills	Sketching for Ideation + Creative Exploration of Product Concepts	3 hours	3 credits	17
	4.0	Design Thinking Design Projects	Introduction to Design Thinking Process + Environment Design Project	9 hours	3 credits	22
			Total Time and credits	18 hours	18 Credits	
	5.0		Assessments and Feedback Forms			28
	6.0		Acknowledgements and Credits			34

## Overview of DT&I Curriculum Tasks:



# Design Thinking and Innovation Task-book for Grade 7

## Introduction:

### 0.1

#### What is Design?



“Design is solution to a problem”

-John Maeda, Designer and Teacher

“Essentials of design are- purity, precision, details ”

-Prof Sudhakar Nadkarni, Designer and Teacher



“Design is thinking made visual”

-Saul Bass, Graphic Designer

“Design is plan for arranging elements in such a way

-Charles Eames, Designer and Film Maker



“Design is not just what it looks like and feels like.  
Design is how it works.”

-Steve Jobs, Designer and Businessman

**In a nutshell, design is about understanding needs and being sensitive to issues, identifying problems that need to be solved, creating innovative appropriate solutions, and considering aspects of sustainability such that it makes a positive difference to life in our universe.**

### 0.2

#### Who is a Designer?

A designer is a highly creative person who enjoys solving problems. The reason why they enjoy being creative is that they are sensitive to the needs of people and understand the extent of the issues in society. This sensitivity allows a designer to be intuitive and to think of opportunities that enhance the lives of people. It makes them appreciate the intricate aspects of a problem or a situation to help better it through creative designs. (Ref: 2)

Design being an important part of the creative industry has many options for you to pursue, such as Communication/Graphic Design, Product Design, Animation Design, Automobile Design, Architecture Design, Environmental Design, Digital Design, Textile/Fashion Design, and such.

So, if you are looking for something which will give the creative streak in you an outlet and also provide you with innovative problem-solving skills, design may be the option for you.

### 0.3

#### What is Design Thinking?

One can understand Design Thinking as a method to solve problems using a process. It is one of the most effective ways to create something new.

A process that first understands users, identifies and analyses a problem or need, and researches relevant information, after which ideas are explored and analyzed, until an appropriate innovative solution to the problem or need is arrived at.

Hence Design Thinking could be viewed as the process that translates an idea into a blueprint for something useful, whether it's a vehicle, a building, a graphic, a service or a system. (Ref: 2)

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0.4

#### Who is a Design Thinker?

A Design Thinker is a person who applies the Design Thinking process to solve problems and find creative innovative solutions in any field or domain. For example, you could apply Design Thinking to solve problems in arts, social sciences, law, medicine, engineering, business, etc. It could even be applied to solve problems at home or in your neighbourhood or in your place of work. Whether it is a simple problem or a complex problem, a design thinker finds creative ways to tackle them. If everyone could adopt this method to solve problems, then we would be moving towards a creative society that finds solutions to many of its problems.

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0.5

#### What is the Design Thinking Process?

It involves the following five phases in the process of solving a problem:

Phase 1. Observe/Empathise/Research,

- The first phase helps you to identify needs and locate issues to be solved through observation and empathy

Phase 2. Understand/Analyse/Define,

- The second phase of the process helps you to understand, define and analyse the problem area

Phase 3. Ideate/Alternate/Create,

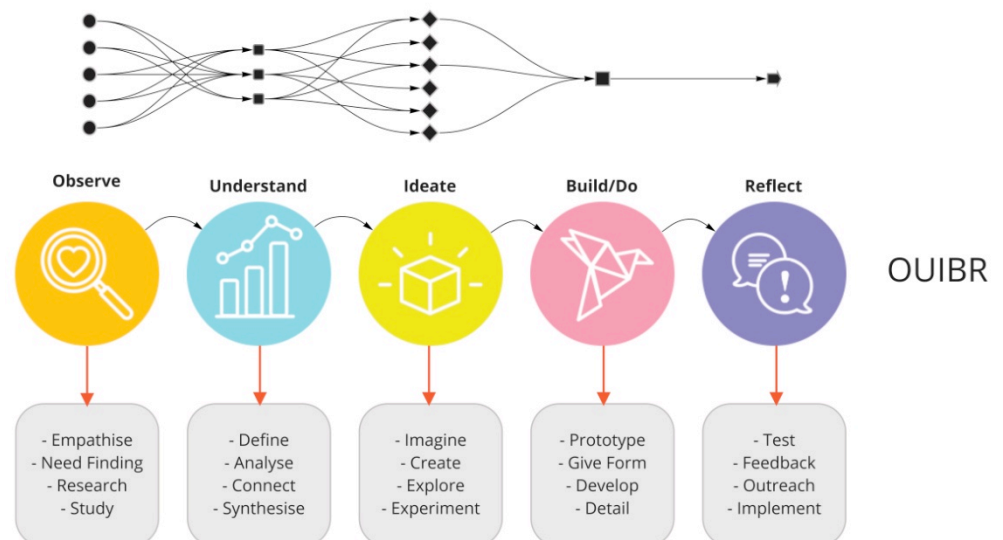
- The third phase helps you to come out with several alternate creative innovative solutions to the problem

Phase 4. Build/Prototype/Detail and

- The fourth phase helps you to actualize the solution by building mock-ups, creating scenarios, and then prototyping and detailing

Phase 5. Reflect/Feedback/Implement

- The last fifth phase is to get feedback through evaluation so that the suggestions can be implemented in the final solution





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0.6

### What is Innovation?

Innovation involves the implementation of something new and replacing or reframing the existing mindset. It is about translating a concept, idea, thought, or invention into artefacts and services that create value in life. It is the process of transforming ideas into commercial reality. Innovation plays a major role in society. It helps us cater to the needs of people that arise from constant physical and emotional changes. It helps identify the crucial applications of technology and scientific inventions.

As compared to Innovation, Invention happens once in a while. However, each Invention may produce millions of Innovative Products – like the invention of Wheel has produced and continues to produce Innovative Products for the benefit of mankind. Innovation is in how an invention can be used to solve problems. Hence, Design pursues Creativity of Innovation.

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1.9

### What is the overall vision and aims of the Design Thinking and innovation Curriculum?

The overall vision of the DT&I curriculum is to be able to instill the following in the students:



- Explore student's **sensory** abilities, **cognitive** abilities and **social** abilities



- Create awareness in the students through **observation, discovery, analysis, experience, collaboration** and **reflection**



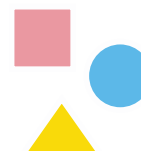
- Nurture their **curiosity** and enhance their **explorative** abilities



- Foster **creativity** and **innovation** in students



- Identify **problems** and be able to find **solutions** + Apply **Design Thinking** process and methods to **solve** various **problems**



- Learn the fundamentals/essentials of the **creative design discipline**

In addition, DT&I will promote socially responsible practice through enlightening the students with ways to solve problems within the Sustainable Development Goals as mentioned by the United Nations. The course also helps students derive culturally-rooted understanding of design from information documented under the Indian Knowledge Systems.

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### References:

Reference 1: <https://dsource.in/resource/quotes>

Reference 2: <http://designindia.net/institutions/design-information/design-questions>

# Design Thinking and Innovation Task-book for Grade 7

## Overview:

0.7

**Modules for grade  
6 / 7 / 8**



Elements of  
Design +  
Story-  
creation



Exploring  
Form  
Transitions +  
Discover  
Forms in  
Environment



Sketching for  
Ideation +  
Creative  
Exploration  
of Product  
Concepts



Design  
Thinking  
Process



Environment  
Design  
Project

0.8

**Overall Vision for grade  
6 / 7 / 8**

- Explore Sensories
- Create Awareness and a Sense of Discovery
- Nurture Curiosity and Creative Explorations
- Provide Problem-Solving Experience and Reflection on What They Did

0.9

**Overall Learning  
Objectives**

- Introduction to Elements of Design and Story-creation
- Observe and Discover Forms in Environment and Explore Form Transitions
- Fundamentals of Sketching and Product Concepts Explorations
- Fundamentals of Design Thinking Process

0.10

**Additional Competencies**

- Enhance Observation Skills
- Improve Sensitivity to Design
- Improve Communication and Presentation Skills

0.11

**Matching SDG Goals**



# Design Thinking and Innovation Task-book for Grade 7

## Overview continued:

### 0.12 Grading

Grade Awarded	Grade	Points
Outstanding	O!	10 (or Extra Points)
Above Excellent	A1	10
Excellent	A2	9
Above Proficient	B1	8
Proficient	B2	7
Above Promising	C1	6
Promising	C2	5
Above Developing	D1	4
Developing	D2	3
Above Beginning	E1	2
Beginning	E2	1

### 0.13 Assessment

- Define the criteria for assessment for the Modules (mentioning the factors for grading/assessment preferably on a Matrix)

Beginning FF-EF-EE 0.0-0.1-0.2	Developing DE-DD 0.3-0.4	Promising CD-CC 0.5-0.6	Proficient BC-BB 0.7-0.8	Excellent AB-AA 0.9-1.0
Criteria 1	Criteria 1	Criteria 1	Criteria 1	Criteria 1
....	Criteria 2	Criteria 2	Criteria 2	Criteria 2
....	....	Criteria 3	Criteria 3	Criteria 3
....	....	....	....	....
			....	....

Grade for the Task = Grade/Points (Marks)

Credits for the Module = Sum of Grades for all the Tasks / Total credits for the Module

### 0.14 Validation/Feedback

- The task done needs to be validated with feedback from both students as well as teachers (so that this can become an input for making changes for the next year)

### 0.15 References

- References are mentioned at the end of each task
- As much as possible, these should be made accessible to both students and teachers

### 0.16 Exhibition/Presentation

- As most of the design tasks have a visual output, the class is encouraged to put up the tasks as an exhibition (for a short period) in the classroom / in common areas of the school or as a group presentation for others in the school to see.

## 1.0 Module 1

# Introduction to Elements for Design and Story-creation

(2 hours at school, done in groups of 3-4 + 1 hour at home)

### Exposure 1

- Fundamentals and Elements of Design

### Exposure 2

- Elements of Story/Narratives (Types, forms, structure)

#### 1.1 Task 1a (at School)

- Create an interesting simple game out of their imagination, using the basic elements of design

#### 1.2 Task 1b (at Home)

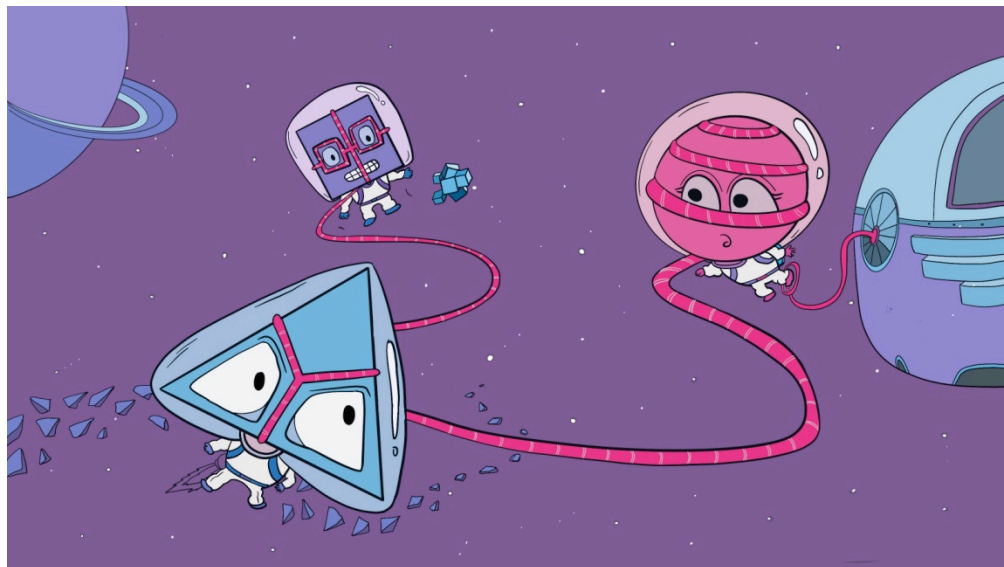
- Create an adventure story of a boy and girl coming to school and possible challenges they face to reach on time + Visualise the story or
- Write a short story based on a journey from your house to your school + draw an interesting visual for the journey

### Final Output

- Game creation from Elements of Design + Demonstration in class and
- Draw the visual + short story/write-up at home

# Introduction to Elements for Design and Story-creation

(2 hours at school + 1 hour at home)



## Introduction

### Introduction to Elements for Design, Game Design and Story-creation

- This Module introduces the basic Elements of Design in terms of shapes – Circle, Square, and Triangle and aspects of Story Creation.

The students will learn about these subjects by exploring two tasks, one at school and the other at home.

- The first task done in school is to **create an interesting simple game** out of their imagination, using the basic elements of design out of paper cut-outs and joineries + play the game, demonstrate and present it.

- The second task done at home is to **create an adventure story** of a boy and girl coming to school and possible challenges they face to arrive on time + sketch and colour + Draw a sketch/illustration to go with your story.

or **Write a short story based on a journey from your house to your school.** The journey should draw upon interesting things that you see and experience during the journey. Draw an interesting visual based on your story = Sketch and colour the visual.

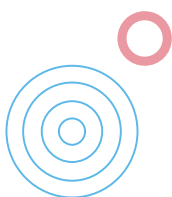
## Aim of the Module

### Aim of the Module:



This Module introduces students (Grade 7) to the Elements of Design through basic shapes as well as understanding the basics of creating their own stories. It should create an interest in this field, nurture their sense of curiosity and motivate them to explore and discover this area.

The students will become sensitive to using a form as building blocks and being able to create a story on their own will take them through the process of using their imagination and creativity.

This knowledge can be applied in many fields of design, media and the performing arts.



**Place:** Task 1a, Task 1b - done at both school and at home

Task 1a, Task 1b -  

**Grouping:** Class tasks are done in groups of 3-4 and Home tasks are individually

 -  /   - 

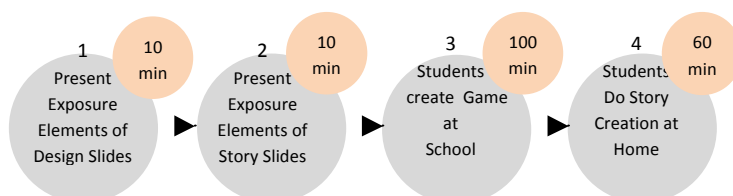
**Equipment:** Sketchbooks for sketching and taking notes, Students need access to normal paper, drawing paper, Chart Paper, scissors, pencils and clay.

**Exposures**

**Exposure 1:** Elements of Design – Circle, Square and Triangle and their characteristics (expressions, associations) in 12 slides

**Exposure 2:** Elements of Story/Narratives (Types, forms, structure) in 12 Slides

**Task Sequence:**



**Design Thinking & Innovation Process involvement:**

This task involves the following phases of the DT&I Process:

Phase 1. Observe/Empathise/Research (who, how and what of Game Elements)

Phase 2. Understand/Analyse/Define (characteristics of Game Structure)

Phase 3. Ideate/Alternate/Create (creative alternatives to the Game Play)

Phase 4. Build/Prototype/Detail (making the model for the game & playing the Game)

Phase 5. Evaluate/Reflect/Implement (feedback from others)

**Mapping SDG Goals:** The following SDG goals need to be considered while solving this task. While designing your character and solving this task, do think of gender equality and reduced inequalities between characters.





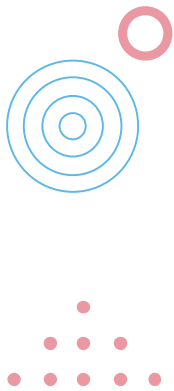
# Task 1:

**Task 1 = 1a + 1b:**

School Hours: 2, Home hours: 1



## 1.1 Task 1a:



### Task 1a:

School hours: 2, Done in groups of 3-4

#### Topic title:

## Create an Interesting Simple Game using Basic Shapes of the Elements of Design:

- The game could either be an indoor game or an outdoor game that can be played outside.
  - Clues: it could be as tiles on the floor, shapes that you can wear, or coloured shapes that you can hide, board games with basic elements, etc.;
  - Can you make use of reusable materials in the design of these games?
1. You can make use of Chart paper or thick drawing paper (around 270 GSM)
  2. Ideate on possible themes or subjects for the game making use of the elements of design
  3. Decide where you would like to play the game – indoor, outdoor
  4. Decide which age group is going to play this game
  5. Make a plan of how the game would be played
  6. Figure out the sequence in which the game would be played
  7. Name your character and note down what is interesting about the character
  8. Figure out the number of participants for the game
  9. Make a rough prototype of the game to try it out with actual participants/players

**Output 1a:** Demonstrate and present the game to your classmates and teacher

## 1.2 Task 1b:



### Task 1b:

Home hours: 1, Done individually

#### Topic title:

## An adventure story of a boy and a girl trying to reach school on time:

- The second task done at home is to **create an interesting adventure story out of your imagination**

1. write a short story about it in around 150 words
2. **Draw a sketch/illustration** to go with your story
3. Draw this on an A4 size paper and you can make use of colours

**Output 1b:** Write-up of the story + the Visual of the Sketch/Illustration or alternatively

## Write a short story based on a journey from your house to your school:

1. Observe and note down interesting things and memorable experiences during the journey from home to your school.
2. You could document through photography and then use this as a reference to draw your visual

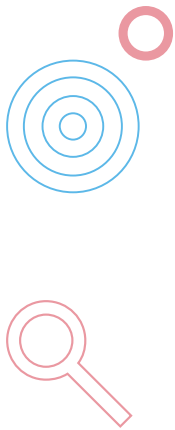
3. Do a short story write-up in around 100 words on your experiences
  4. Draw a sketch/illustration to go with your story
- Output 1b:** Write-up of the story + the Visual of your experience

## Reflection:

### Questions to ponder:

- Could the game be done using sustainable materials?
- Could one learn a concept out of playing this game?
- Can you further work on the game and make a finished prototype?
- Can you document the game so that it can be used in your portfolio?

## Assessment:



### Assessment Criteria (Task 1a + 1b) – Assess yourself:

- Game Design and Construction: Game is original, creatively designed, and captures the essence of the elements of design through basic shapes. (Group Assessment, Task 1a)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

- The game was demonstrated and presented well so that it could be understood clearly (Group Assessment, Task 1a)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>		<i>Promising</i>		<i>Excellent</i>

- Collaboration and Demonstration: Clear evidence of original, creative ideas throughout the presentation. The game was engaging for the players. (Group Assessment, Task 1a)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

- The imaginary story about the journey to school was original, creative and represented the character or the vision of the world clearly. (Individual Assessment, Task 1b)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

## Other References:

### Other suggested References:

1. Using Elements of Design in Designed by Apple, short film 1min 30 sec  
<https://www.youtube.com/watch?v=XjgoZua3BoY>
2. The Elements of Design/Theory  
<https://www.youtube.com/watch?v=01ZoynsM7Vw>
3. Elements of Story  
<https://www.youtube.com/watch?v=1M0pFLXegG0>



## 2.0 Module 2

# Exploring Form Transitions for Moving Images + Discovery of Forms in Environment

(2 hours at school, done in groups of 3-4 + 1 hour at home done individually)

### Exposure 1

- Fundamentals/basics of Form Transitions

### Exposure 2

- Forms and patterns in the environment and man-made objects

#### 2.1 Task 2a (at School)

- Create Five transitions in shapes or forms from one to another and string them together

#### 2.2 Task 2b (at School)

- Animating the sequence through stringing it together or through the use of a flipbook

#### 2.3 Task 2c (at Home)

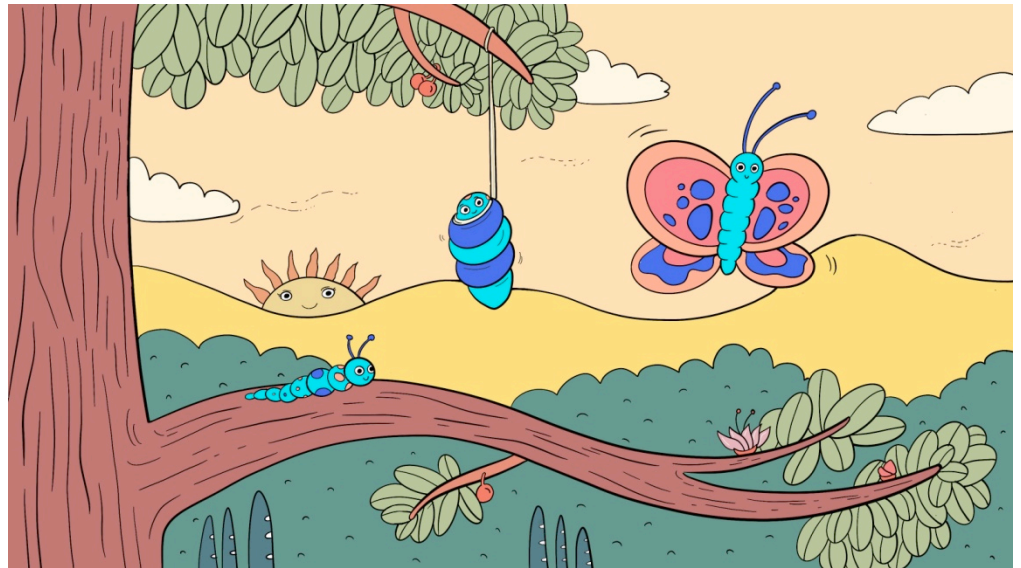
- Document through photography/sketching:  
1. Symmetry, 2. Patterns 3. Texture from immediate Nature

### Final Output

- Form Transitions and string it together or as a flipbook done in class
- Identifying symmetry, pattern, and texture in nature documenting through photography and presented as slides

# Exploring Form Transitions + Forms in Environment

(2 hours at school + 1 hour at home)



## Introduction

### Introduction to Exploring Form Transitions and Discovering Forms in the Environment



- This module introduces the basic principles of form transitions and how these parts are an important part in transforming one image to another. It is also the basic principle of animation design. It is meant as a brief exposure to this creative field and makes the students sensitive to changes in form.
- The students will use paper cutouts or soft clay and look at the transformation of form from one to another. For example, they could start with a triangle and in 5 steps change it to a circle or start with a rose and in 5 steps change its form to a sunflower. By discovering the in-between shapes or forms, the students will begin to become sensitive to changes in shape and its transformation. This task is done at school.
- The students could string the transformation of forms on a string, spin it or make a flipbook and watch the transformation of form. By doing this, the shapes get animated and they can experience the foundations in the field of animation.
- In the next exercise to be done at home, the students will document through photography/sketching any one of these A. Examples of symmetry, pattern, and texture in a natural environment as well as in a man-made environment

## Aim of the Module

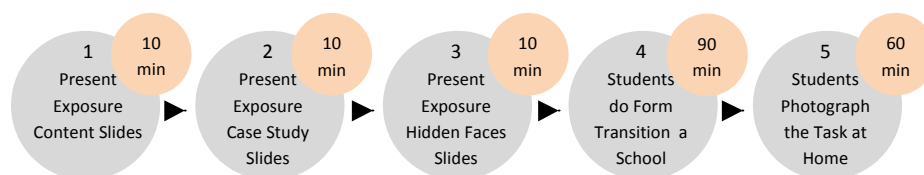


### Aim of the Module:

This Module introduces students (Grade 7) to Form Transition for creating moving images as well as documentation of Forms in the Environment. It should create an interest in this field, nurture their sense of curiosity and motivate them to explore and discover this area. The students will become sensitive to changes in form and get to know that this knowledge can be applied in product, communication and animation design.

<b>Place:</b>	Task 2a, Task 2b, Task 2c - done at both school and at home 
<b>Equipment:</b>	Smart Mobile phone with Camera, Sketchbooks for sketching and taking notes, Students need access to normal paper, Drawing paper, Scissors, Pencils and Clay.
<b>Grouping:</b>	Class tasks are done in groups of 3-4 and Home tasks are done individually 
<b>Exposures</b>	<b>Exposure 1:</b> Fundamentals/basics of Form Transitions through a slide show <b>Exposure 2:</b> Forms and patterns in the environment and man-made objects as a slide show

### Task Sequence:



### Design Thinking & Innovation Process involvement:

This task involves the following phases of the DT&I Process:  
 Phase 1. Observe/Empathise/Research (discovering where and what of forms)  
 Phase 2. Understand/Analyse/Define (identify how of forms)  
 Phase 3. Ideate/Alternate/Create (exploring form variations)  
 Phase 4. Build/Prototype/Detail (making or documenting of forms)  
 Phase 5. Evaluate/Reflect/Implement (presentation & feedback from others)

### Mapping SDG Goals:

The following SDG goals need to be considered while solving this task. All forms of life on our earth and its environment are important and we have to empathise and respect this. You could think of this while solving this challenge.



## Task 2:

**Task 2 = 2a + 2b + 2c:**

School Hours: 2, Home hours: 1



### 2.1 Task 2a:



#### Task 2a:

School hours: 2, Done in groups of 3-4

#### Topic title:

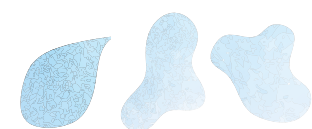
### Exploring Transitions in shapes and forms:

- The main task is to make a transition between two sets of shapes or forms. (We refer to it as shape when it is flat two-dimensional and as form when it is solid three-dimensional)

1. The students will use paper cutouts or soft clay and look at the transformation of form either in 2D or 3D, from one shape to another or from one form to another. For example, the challenge is to transform a shape, let's say from a Circle shape to a Star shape to a Triangle shape in 5 + 5 steps or from a Rose to a Sunflower to a Lotus
2. The students can either choose to do it on drawing paper or on clay, around 10 centimetre in size
3. Clue: First draw the two end letters in the same size as outlines or create the form in clay in the same size. Then do the middle shape/form in-between the two letterforms. Then do the one in-between the middle shape/form and the first or last letter
4. If you are using drawing paper, after having drawn the 5 variations, use a scissor to cut around its outline. Arrange it in the order of transition
5. You can colour each of them such that the colour gradually changes from one to another shape or form
6. By discovering the in-between shapes or forms, the students will begin to become sensitive to changes in shape and its transformation
7. The task involves sensitivity to minor changes in shape and form and the creation of new forms by transitions
8. This task is done at school

**Output 2a:** Paper cut-outs/plaster models of transition of shape/form

### 2.2 Task 2b:



#### Task 2b (optional)

#### Topic title:

### Animating the sequence by stringing it together or through the use of a flipbook:

Stringing it together:

1. The 5 + 5 transitions in shape or form need to be strung on a thread
2. for this, you could make a hole in the center of the shape or form
3. String the shapes up on the string with a gap of 3 cms
4. Make knots on string in intervals of 3 cms
5. Turn the string and watch the transition of shapes -

**Output 2b:** Stringing up the shape/form transitions

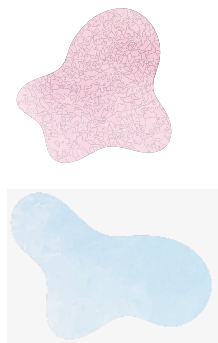
Making a Flipbook:

1. Staple the sheets together as a flip-book
2. Flip the pages to experience the change of shape from one to another

**Output 2b:** Making a Flip-book out of the shape transitions



## 2.3 Task 2c:



### Task 2c

Home hours: 1, Done individually

Topic title:

## Discovering Forms in the Environment

Document any one of these topics through photography. You need to make a selection of 6 photos. Make use of the camera on your mobile:

- A. Symmetry in Natural or Man-made environment
- B. Patterns found in the Environment either in Objects/ Plants or animals
- C. Textures found in Nature or Objects

1. Photo shoot at least 3 alternatives for each of them and select what you feel is the best one out of them
2. Your selection should have 6 final photos
3. Make sure the lighting is sufficient and the subject is composed properly
4. This task is done at Home and from the surrounding environment

**Output 2c:** Selected Photos arranged in a sequence

## Reflection

**Have I understood and Questions to ponder:**

- Which other instances are shape/form transitions important?
- Will you look for inspiration of shapes, colours, textures, structures and principles from your environment/nature?
- Can you start identifying different types of trees, birds and insects?
- How do forms change subtly within a family of living beings?

## Assessment:

**Assessment Criteria (Task 2a + 2b + 2c) – Assess yourself:**

- Creating shapes/forms using paper/clay: The student is able to create the 2 + 2 end shapes/forms for this task. (Group task)

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<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

- Discovering in-between shapes and forms: Creates transitions clearly showcasing the in-between shapes/forms that represent the transition. (Group task)

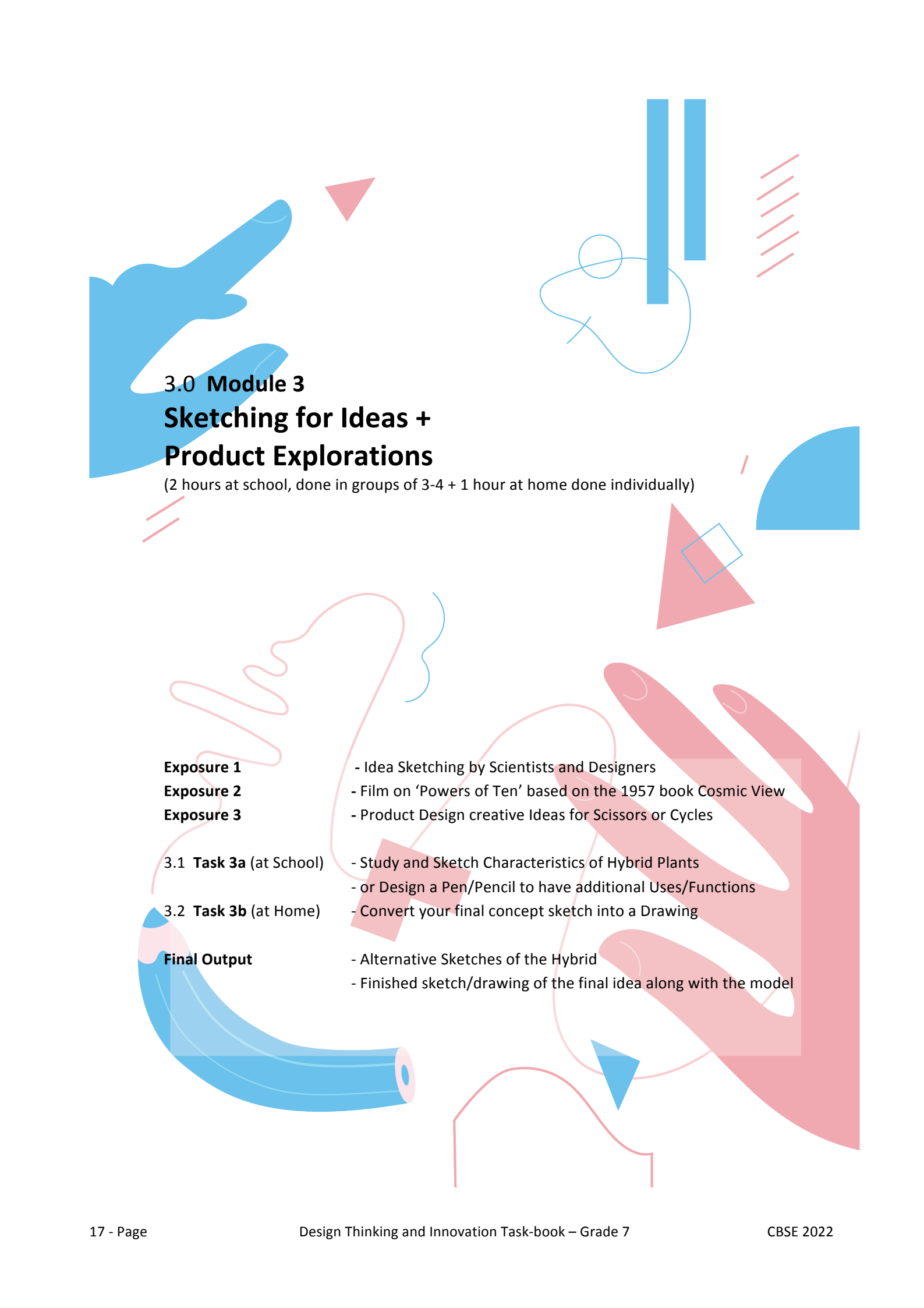
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

- Sensitivity towards new forms by transitions: Displays heightened sensitivity to changes in shape and form and creation of new forms by transitions. (Group task)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

- Discovering Forms in Nature: Is able to document through photography easily identifiable forms of symmetry, patterns and texture from the environment. (Individual task)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>



### 3.0 Module 3

## Sketching for Ideas + Product Explorations

(2 hours at school, done in groups of 3-4 + 1 hour at home done individually)

#### Exposure 1

#### Exposure 2

#### Exposure 3

#### 3.1 Task 3a (at School)

#### 3.2 Task 3b (at Home)

#### Final Output

- Idea Sketching by Scientists and Designers
- Film on 'Powers of Ten' based on the 1957 book Cosmic View
- Product Design creative Ideas for Scissors or Cycles

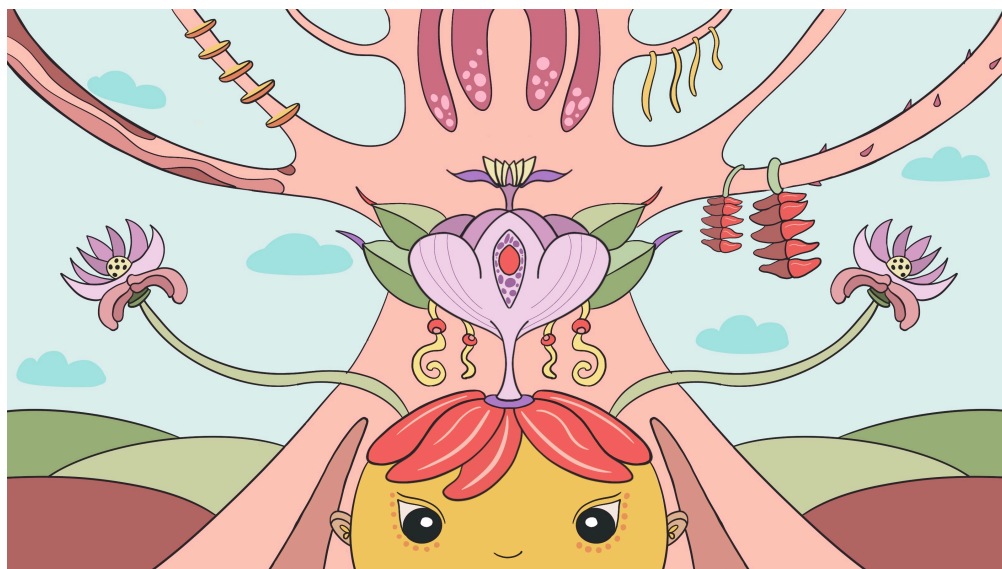
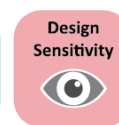
- Study and Sketch Characteristics of Hybrid Plants
- or Design a Pen/Pencil to have additional Uses/Functions
- Convert your final concept sketch into a Drawing

- Alternative Sketches of the Hybrid
- Finished sketch/drawing of the final idea along with the model

### 3.0 Module 3:

## Sketching for Ideation + Exploration of Product Ideas

(2 hours at school + 1 hour at home)



### Introduction

#### Introduction to Sketching for Ideation and Creative Exploration of Product Ideas or Concepts

- The initial part of the module is to expose school students (Grade 7) to the basics of sketching for ideation. The emphasis of sketching is mainly on the representation of different ideas or concepts as visual representations. The easiest and simplest way is to take a pencil and sketch ideas or concepts on a sheet of paper. The sketching becomes an extension of thinking with the output as visual representations.
- The second part of the module is to try out several variations of ideas or concepts. In the process of design, it is important to think of several alternative solutions to a given problem. This way, one has the option of choosing the best alternative.

### Aim of the Module

#### Aim of the Module:

This Module introduces students (Grade 7) to Sketching for Ideation, along with exploring creative variations in Product Forms. It should create an interest in this field, nurture their sense of curiosity and motivate them to explore and discover this area. The students will become sensitive to creating creative variations and understand its significance for creative alternate concepts for Design.

### Place:

Task 3a, Task 3b – done at School and Task 3C done at Home



### Equipment:

Smart Mobile phone with Camera, Sketchbooks for sketching and taking notes, Students need access to normal paper, Drawing paper, Chart paper, Sticks, Soft aluminum wires, Scissors, Pencils and Clay.

## Grouping:

Class tasks are done as individuals or in groups of 3-4 and Home tasks are individually



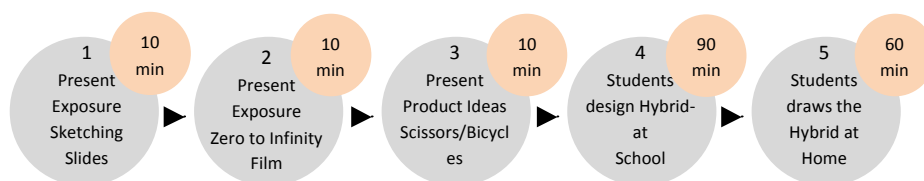
## Exposures:

**Exposure 1:** Sideshow (12 in no.) on Idea Sketching by Scientists and Designers

**Exposure 2:** Film on 'Powers of Ten' based on the 1957 book Cosmic View by Dutch educator Kees Boeke: <https://www.youtube.com/watch?v=44cv416bKP4>

**Exposure 3:** Product Design creative Ideas for Scissors or Cycles

## Task Sequence:



## DT&I Process involvement:

This task involves the following phases of the Design Thinking Process:

Phase 1. Observe/Empathise/Research (How, why and what of plants/pens/pencils)

Phase 2. Understand/Analyse/Define (understand the characteristics of plants/pens/pencils)

Phase 3. Ideate/Alternate/Create (sketch & explore alternate concepts)

Phase 4. Build/Prototype/Detail (build and make a prototype of hybrid plant/pen/pencil)

Phase 5. Evaluate/Reflect/Implement (presentation & feedback from others)

## Mapping SDG Goals:

The following SDG goals need to be considered while solving this task. It brings concern for life on land. In addition, your solutions could make use of sustainable materials.



# Task 3:

**Task 3 = 3a + 3b + 3c:**

School Hours: 2, Home hours: 1



## 3.1 Task 3a:

**Task 3a:**

School hours: 2, Done in groups of 3-4



**Topic title:**

## Study and Sketch Characteristics of Hybrid Plants

Plants are part of life on earth and the source of nourishment for us.

1. Write down different names for the Plants in our culture (at least a dozen)
2. Figure out how the different parts of the plant are important
3. Figure out what part of the plant can be combined/integrated with another plant
4. Study how to grow hybrid plants
5. Document through photography or sketches examples of 2 plants in your school premises or nearby
6. Identify their different parts and its uses
7. Visualize if two of the plants were combined as a hybrid, how will it look like and which features will it have
8. Each member of the group ideates and sketches 3 to 5 alternatives of the hybrid possibilities
9. Look at all the ideas that your group has, and group them in similar categories. If they are different from one another, keep them in different categories. Discuss on how you might be able to combine ideas or take forward one of the ideas.

**Output 3a:** Alternative Sketches of the Hybrid

Or alternative Task:

## Design a Pen/Pencil to have additional Uses/Functions

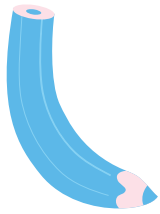
Pen and Pencil let us draw, sketch and write. It supports us in our communications and lets us put down our ideas and thoughts on paper and other surfaces.

1. Write down different names for the Pen or Pencil in our culture (at least 6 names)
2. What are the different types of Pens or Pencils? Write down at least 6 of them and figure out how the different parts of it are important
3. How do these users make use of pens or pencils? A Writer? An Artist? A Carpenter? A Magician? An Astronomer? Other users?
4. Ideate 6 other uses for the Pen or Pencil
5. Combine a Pen or a Pencil with another useful object and design a Hybrid Object. Here you need to put on your thinking hat and think of unusual combinations as well as multiple uses. Think of many ideas
6. Each member of the group ideates and sketches 2 to 4 alternatives of the hybrid possibilities
- Clues: Pencil or Pen with a ruler? Pencil with a pen or brush? with a sand clock? etc.
7. Look at all the ideas that your group has, and group them in similar categories. If they are different from one another, keep them into different categories. Discuss on how you might be able to combine ideas or take forward one of the ideas

**Output 3a:** Alternative Sketches of the new Pen/Pencil

**Task 3b:**

### 3.2 Task 3b:



Home hours: 1, Done individually

#### Topic Title:

## Convert your final concept sketch into a drawing

You might be able to combine ideas or take forward one of the ideas. The aim is to represent your final idea/concept as best as you can.

1. Make a drawing or a neat sketch of your idea on A4 size drawing paper using a 0.5 mm ink pen and colour it using colour pencils
2. Mention the different parts of your concept and mention the materials used.
3. Give a name to your final concept
4. Make use of clay to make a 3D model of your final idea (optional)
5. Take a photograph of both your final sketch as well as your final model
6. you can also describe in a few words how your concept can be used

**Output 3b:** Finished sketch/drawing of the final idea along with the model

#### Reflection:

##### Questions to ponder:

- What design thinking principles were used?
- Do you think Hybrid Design could be used for other situations?
- Can you use quick sketching as a means of trying out alternate concepts?
- Will you start a sketchbook that you can carry with you to document ideas and your thoughts?

#### Assessment:

##### Assessment Criteria (Task 3a + 3b) - Assess yourself:

- Has a detailed understanding of the concept of Hybrid and was able to Identify parts and components. (Group task)

☐

*Beginning*

☐

*Developing*

☐

*Promising*

☐

*Proficient*

☐

*Excellent*

- Created a sketch clearly showcasing the understanding of the design process and is able to use the basics of sketching for ideation. (Group task)

☐

*Beginning*

☐

*Developing*

☐

*Promising*

☐

*Proficient*

☐

*Excellent*

- Displayed heightened sensitivity to creating variations and to understand its significance for creative alternate concepts for Design. (Group task)

☐

*Beginning*

☐

*Developing*

☐

*Promising*

☐

*Proficient*

☐

*Excellent*

- Made a clear representation of the final idea with a short suitable explanation of its features. (Individual task)

☐

*Beginning*

☐

*Developing*

☐

*Promising*

☐

*Proficient*

☐

*Excellent*

#### Other References:

##### Other suggested References:

1. Design Idea Sketching:

<https://www.youtube.com/watch?v=71vvkT2aaUQ>

[https://www.youtube.com/watch?v=4UwPiwbmj\\_8](https://www.youtube.com/watch?v=4UwPiwbmj_8)





## 4.0 Module 4

# Introduction to Design Thinking Process and Environmental Design Project

(6 hours at school, done in groups of 3-4 + 3 hours at home, done individually)



**Exposure 1**

**Exposure 2**

**Exposure 3**

Exposure 1: What is the Design Thinking Process

Exposure 2: How to use Sticky notes to Categorise information + how to do mind-mapping

Exposure 3: Design Case Study using the Design Thinking process

**4.1 Task 4a (at School)**

**4.2 Task 4b (at School)**

**4.2 Task 4b (at Home)**

**4.2 Task 4b (at School)**

- Identify Problems just outside your School Environment

- Ideation and Creative Options and short-listing of concepts

- Creating Scenarios, Design mock-ups and detailing

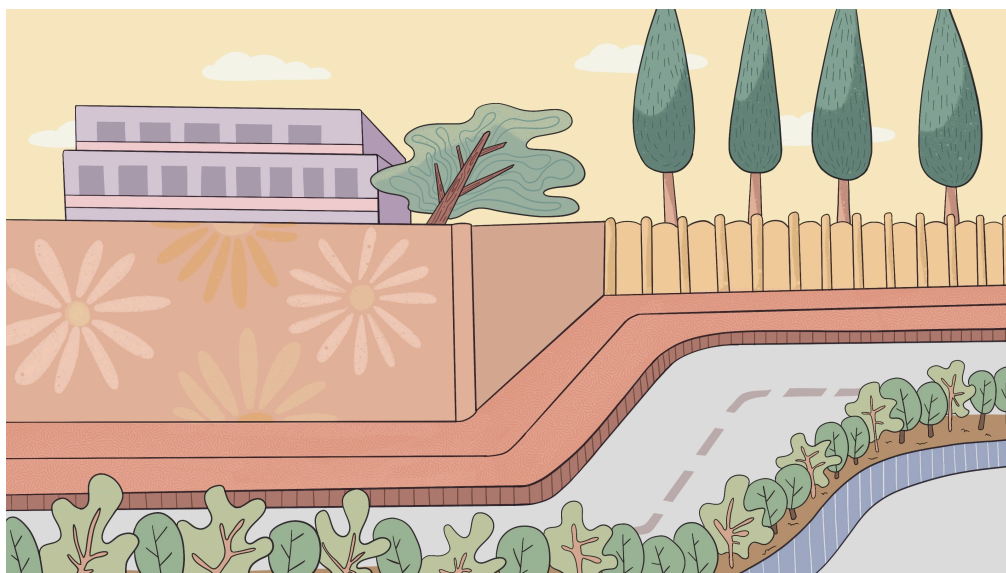
- Final Design Solution Presentation

**Final Output**

- Prepare a presentation (of 5 minutes duration) to include all the stages of the project

# Introduction to Design Thinking Process and Environmental Design Project

(6 hours at school + 3 hours at home)



## Introduction



### Introduction to Design Thinking Process and Environmental Design Project

- Design Thinking may be seen as a method to solve problems using a process. A process that first understands users, identifies and analyses a problem or need, and research relevant information, after which ideas are explored and analysed, until an appropriate innovative solution to the problem or need is arrived at.
  - It involves these five phases – 1. Observe/Empathise/Research, 2. Understand/Analyse/Define, 3. Ideate/Alternate/Create, 4. Build/Prototype/Detail and 5. Evaluate/Reflect/Implement.
  - Design Thinking could be viewed as the process that translates an idea into an appropriate and useful solution. This could be applied to any field, be it economics, products, services, health, environment and other such areas.
- Here you will understand the basics of this design process and apply it to identify and solve problems just outside the school environment.

## Aim of the Module

### Aim of the Module:

This Module introduces students (Grade 7) to the Design Thinking Process. Using this process, the students will apply its principles and steps to identify, analyse, ideate and find suitable solutions to a problem concerning arising just outside their school environment. It should create an interest in this field, nurture their sense of curiosity and motivate them to explore and discover this area. The students will understand the basics of the design process and be able to apply it to identifying and solving problems surrounding their immediate environment.

**Place:** Task 4a, Task 4b, Task 4d at School  and Task 4c at Home 

**Equipment:** Smart Mobile phone with Camera, Sketchbooks for sketching and taking notes, Students need access to normal paper, Drawing paper, Chart paper, some sticks, Soft aluminium wires, Scissors, Pencils and Clay.

**Grouping:** Class tasks are done in groups of 3-4 and Home tasks are individually



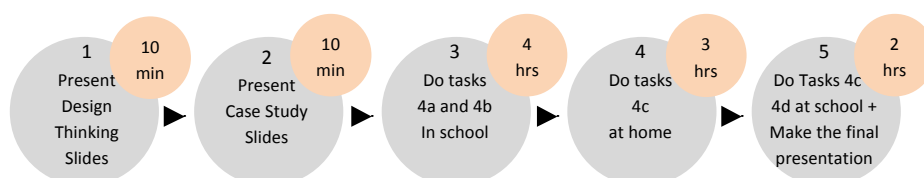
**Exposures:**

**Exposure 1:** Slideshow (12 in no.) What is the Design Thinking Process

**Exposure 2:** Slideshow on how to use Sticky notes to Categorise information + how to do mind-mapping

**Exposure 3:** Slide show on a Design Case Study using Design Thinking process

**Task Sequence:**



**Design Thinking & Innovation Process involvement:**

**Task 4 = 4a + 4b + 4c+ 4d:**

This task involves all the following phases of the Design Thinking Process:

Phase 1. Observe/Empathize/Research (why and what of outside school environment)

Phase 2. Understand/Analyse/Define (understand how of outside school environment)

Phase 3. Ideate/Alternate/Create (sketch & explore alternate concepts)

Phase 4. Build/Prototype/Detail (developing & detailing of concepts)

Phase 5. Evaluate/Reflect/Implement (presentation & feedback from others)

**Mapping SDG Goals:**

The following SDG goals need to be considered while solving this task. Discover positive and negative aspects just outside your school environment with respect to these SDG goals. You could suggest solutions to overcome the negative aspects.



## Task 4:

School Hours: 6, Home hours: 3

**Topic: Applying Design Thinking Process in an Environmental Design Project**



### 4.1 Task 4a:



#### Task 4a:

School hours: 2, Done in groups of 3-4

**Topic title:**

## Identify Problems just outside your School Environment/Premises



1. The first task is to identify issues just outside your school environment in terms of roads, footpaths, gates, boundary-walls, dustbins, built artefacts, objects, services and facilities, common spaces, etc.
2. Each group will look at issues connected with one or two of these areas
3. Look at it from different points of view of its users - people (children, Elderly, Persons with disability, street-vendors, shop-keepers), animals, etc.
4. You will need to converse with them to find out their difficulties and you might need to look at the school environment from their point of view
5. Observe how they interact with outside the school environment – mark the places or spaces they use and find out problems faced by them and at the same time note down what is right or good about these
6. Document by taking photographs of your observations
7. Note down your observations in your sketchbook as a table in three columns, one for positives, one for negatives and one for suggestions

Positive aspects/issues	Negative Aspects/issues	Suggest Improvements

8. Rewrite these points on sticky notes, which makes it easy to (1) classify and categorise them into similar categories/groups (ii) rearrange the points within the categories in order of importance and (iii) mark out interconnections/links between the different points

- or instead, you could use the mind-mapping method to (i) arrange the points on different branches, (ii) in order of importance and (iii) see if there are interconnections/links between the different points

9. Photograph your sticky notes arrangement or the mind-mapping exercise.

10. Identify/select from these problems that you would like to solve and make a final list of them (at least 5)

**Output 4a:** Summarise the work you have done less than 5 presentation slides (Problem statement + Photo/sketch documentation + Table + Categorisation/mind-mapping + Final list of solvable problems)

### 4.2 Task 4b:

#### Task 4b:



School hours: 2, Done in groups of 3-4



**Topic title:**

## Ideation and Creative Options and short-listing of concepts

You have understood the problems that need solutions

1. Your group could brainstorm, Ideate possible solutions and sketch these out
2. Make a list of possible solutions on this matrix of (easy to implement vs difficult to implement on the horizontal axis and low cost vs high cost on the vertical axis)
3. Collate all the good ideas together and short-list them according to their usefulness and ease of implementation

**Output 4b:** Make a presentation of these in 3 slides (alternate sketches + Matrix + short-listed idea)

### 4.3 Task 4c:



**Task 4c:**

Home hours: 3, Done individually

School Hours 1, Done in Groups of 3-4

**Topic title:**

## Creating Scenarios, Design mock-ups and Detailing

1. Select the best of your solutions/suggestions
2. Create a scenario to demonstrate in 5 steps how to use your selected idea. You can use characters to build the scenario
3. You could also try making a mock-up of your final idea using card-board/easily available materials
4. Detail out the final selected solution: the details could be about its shape/form, materials, listing of advantages/disadvantages and how to implement/maintain

**Output 4c:** make a presentation of these in 3 slides (scenario + mock-up + details)

### 4.4 Task 4d:



**Task 4d:**

School Hours 1, Done in Groups of 3-4

**Topic title:**

## Final Design Solution Presentation

Presentation Details of points mentioned above:

**Output 4d:** Prepare a presentation (of 5 minutes duration) to include all the stages of your project in 12 slides:

- a. 5 presentation slides for Task 4a (Title/Problem statement with the names of team members + Photo/sketch documentation + Table + Categorisation/mind-mapping + Final list of solvable problems)
- b. 3 slides for Task 4b (alternate sketches + Matrix + short-listed idea)
- c. 3 slides for Task 4c (scenario + mock-up + details)
- d. 1 slide for Full References (Learn how to do references) and Acknowledgments to all who have helped
- e. Make a group presentation using your slides in the classroom
- f. You could set up an exhibition of these projects in your classroom/exhibition room and invite other staff and students to come and see what you have done

### Reflection:

**Questions to ponder:**

- What are the most interesting phases of the Design Thinking process that you

liked?

- Can you apply what you learnt by solving problems just outside your school to other places and situations – starting at your home or neighbourhood?
- Will you share this information on the use of the Design Thinking Process with others – like your friends and cousins?

## Assessment:

### Assessment Criteria (Task 4a + 4b + 4c + 4d) - Assess yourself:

- Identifies the key elements of 4-5 problems and clearly outlines the objectives in an effective manner with no assistance. (Group task)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

- Develops strategies to interact with the school environment that are insightful and use logical reasoning to reach accurate results with no assistance. (Group task)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

- Documents 4-5 representations that accurately reflect the problems and aids in solving the problems with no assistance. (Group task)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

- Displays creative skills to ideate, collate and present 12 slides that reflect the basics of the design process with very innovative solutions. (Group task)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Beginning</i>	<i>Developing</i>	<i>Promising</i>	<i>Proficient</i>	<i>Excellent</i>

## Other References:

### Other suggested References:

1. Design Thinking Process - explained with an example:  
<https://www.youtube.com/watch?v=uRtAzzitBmA>
  2. Design Thinking Framework - a short video:  
<https://www.youtube.com/watch?v=LhQWrHQwYTk>
-



## Assessment Criteria:

### Module 1.0: Elements of Design, Game Design and Story Creation

Achievement Levels	1-2 BEGINNING	3-4 DEVELOPING	5-6 PROMISING	7-8 PROFICIENT	9-10 EXCELLENT
<b>Making use of Elements of Design</b> (Group assessment)	Needs to start making use of the Elements of Design.	Elements of Design are just about used.	Elements of Design are used fairly well. They have understood the use of form as building blocks to create the game.	Elements of Design are original and constructed well. They seemed motivated to explore form and design.	Elements of Design through basic shapes are original, creatively designed, and fit well with the game
<b>Game Design and Construction</b> (Individual assessment)	Needs to start making a game beyond the basic outline.	Game Design is just about complete. Some pieces needs to be completed.	Game design is constructed fairly well. They have understood the use of form as building blocks to create the game.	Game design is original and constructed well. They seemed motivated to explore form and design.	Game design is original, creatively designed, and engaging to play the game
<b>Collaboration and Presentation</b> (Group assessment)	Needs to start working on game presentation	Most of the group members' voice was monotone and not expressive.	Some storytellers showed less expression and emotion.	Most of the storytellers' voices showed some expression and emotion and the group worked in collaboration	Clear evidence of original, creative ideas throughout the presentation. All storytellers showed a lot of expression and emotion and the story was well enacted
<b>Story creation</b> (Individual assessment)	Needs to start developing the story	Story has a weak plot and organization	Story has a plot but confusing organization and structure. No supporting details are included.	Some evidence of original, creative ideas, organization and structure. Few supporting details are included.	Strong organization and structure of story with all elements of story writing. Vivid supporting details included.

## Assessment Criteria:

### Module 2.0: Form Transitions + Discovery of Forms in Environment

Achievement Levels	1-2 BEGINNING	3-4 DEVELOPING	5-6 PROMISING	7-8 PROFICIENT	9-10 EXCELLENT
<b>Creating forms using paper/clay</b> (Group task)	The student: Needs to complete creating a shape/form	The student: Documents one shape/form using paper/clay	The student: Documents 1-2 shape/form using paper/clay	The student: Documents 3-4 shape/form using paper/clay	The students are able to create the 2 end shapes/forms for this task
<b>Discovering in-between shapes and forms</b> (Group task)	Needs to complete creating a transition form	Creates a transition form	Creates 1-2 transition forms with the middle shape/form in-between the two letter-forms	Creates 3-4 clear transition forms with the middle shape/form in-between the two letter-forms	Creates transition clearly showcasing the in-between letters that represent the transition
<b>Sensitivity towards new forms by transitions</b> (Group task)	Displays poor sensitivity to minor changes in shape and form and creation of new forms by transitions	Displays very limited sensitivity to minor changes in shape and form and creation of new forms by transitions	Displays average sensitivity to minor changes in shape and form and creation of new forms by transitions	Displays sensitivity to minor changes in shape and form and creation of new forms by transitions	Displays heightened sensitivity to changes in shape and form and creation of new forms by transitions
<b>Discovering Forms in Nature</b> (Individual task)	Is not able to document through photography identifiable forms of symmetry, pattern and texture from the environment.	Limited ability to document through photography identifiable forms of symmetry, pattern and texture from the environment.	Average ability to document through photography identifiable forms of symmetry, pattern and texture from the environment.	Ability to document through photography identifiable forms of symmetry, pattern and texture from the environment.	Is able to document through photography easily identifiable forms of symmetry, pattern and texture from the environment.

## Assessment Criteria:

### Module 3.0: Sketching for Ideation + Exploration of Product Ideas

Achievement Levels	1-2 BEGINNING	3-4 DEVELOPING	5-6 PROMISING	7-8 PROFICIENT	9-10 EXCELLENT
<b>Identification of the parts, uses, properties of plants/pen or pencil</b> (Group task)	The student: Needs to understand the identification of its parts, uses and properties	The student: Had a rough understanding and idea of its parts, uses and properties	The student: Had a fair understanding and idea of its parts, uses and properties	The student: Had a good understanding and idea of its parts, uses and properties	The student: Possesses a detailed understanding and idea of its parts, uses and properties
<b>Documenting through sketches plants/pen or pencil</b> (Individual task)	Needs to complete a sketch	Creates few sketches (1) that are limited in design and operation, and the basics of sketching are not clear.	Creates fair number of sketches (2) for ideation, but lacks attention to detail.	Creates good number of sketches (3) that reveals a fair understanding of the design process and the basics of sketching for ideation.	Creates many sketches (4-5) clearly showcasing the understanding of the design process and is able to use the basics of sketching for ideation
<b>Hybrid Design Explorations</b> (Group task)	Needs to start creating variations and to understand its significance for creative alternate concepts for Design.	Displays limited sensitivity to creating variations and to understand its significance for creative alternate concepts for Design.	Displays average sensitivity to creating variations and to understand its significance for creative alternate concepts for Design.	Displays sensitivity to creating variations and to understand its significance for creative alternate concepts for Design.	Displays heightened sensitivity to creating variations and to understand its significance for creative alternate concepts for Design.
<b>Representation of the final Hybrid Design</b> (Group task)	Needs to start to represent the final idea	The final idea of the Hybrid Design was just about represented through a sketch /drawing	The final idea of the Hybrid Design was moderately represented through a sketch /drawing	The final idea of the Hybrid Design was fairly represented through a sketch /drawing	The final representation of the Hybrid design idea was very clear and appropriately represented through a sketch /drawing

## Assessment Criteria:

### Module 4.0: Design Thinking Process and Environmental Design Project

<b>Achievement Levels</b>	<b>1-2 BEGINNING</b>	<b>3-4 DEVELOPING</b>	<b>5-6 PROMISING</b>	<b>7-8 PROFICIENT</b>	<b>9-10 EXCELLENT</b>
<b>Problem/Issue Identification</b> (Group Assessment)	Needs help to identify the key elements of the problem and/or the objectives with a great deal of assistance	Identifies the key elements of a problem and vaguely outlines the objectives with assistance	Identifies the key elements of 2 problems and outlines the objectives with assistance	Identifies the key elements of 3 problems and clearly outlines the objectives in an effective manner with little assistance	Identifies the key elements of 4-5 problems and clearly outlines the objectives in an effective manner with no assistance.
<b>Ideation and Observation</b> (Group Assessment)	Needs a great deal of assistance to interact with the school environment and note down observations	Needs some assistance to interact with the school environment and note down observations	Develops strategies to interact and use logical reasoning to observe and note down observations with assistance	Develops strategies to interact with the school environment and use logical reasoning to reach accurate results with little assistance	Develops strategies to interact with the school environment that are insightful and use logical reasoning to reach accurate results with no assistance
<b>Analysis and Documentation</b> (Individual Assessment)	Needs a great deal of assistance to document a representation that reflects the problem and solution	Documents a representation with assistance that accurately reflects the problem and aids in solving the problem	Documents 2 representations with assistance that accurately reflect the problems and aid in a limited manner in solving the problems	Documents 3 representations that reflect the problems and aid in solving the problems with little assistance.	Documents 4-5 representations that accurately reflect the problems that aid in solving the problem with no assistance
<b>Presentation</b> (Group Assessment)	Needs a lot of assistance to ideate, collate and present 2-3 slides that reflect the basics of design process with limited solutions	Needs some assistance to ideate, collate and present 4-5 slides that reflect the basics of design process with appropriate solutions	Displays average skills to ideate, collate and present 6-8 slides that reflect the basics of design process with appropriate solutions	Displays skills to ideate, collate and present 9-11 slides that reflect the basics of design process with appropriate and innovative solutions	Displays creative skills to ideate, collate and present 12 slides that reflect the basics of design process with very innovative solutions

## Student Feedback Form:

NAME	CLASS	MODULE	TASK	ACTIVITY	DATE

**Give a rating for each of the statements below:**

- by placing a tick mark in the corresponding box.

	INADEQUATE	FAIR	GOOD	VERY GOOD	EXCEPTIONAL
Level of effort you put into activity					
Your level of knowledge at the start of the activity					
Your level of knowledge at the end of the activity					
Understanding of exposure slides/video					

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
I enjoyed doing the activity					
I understood the design principles while doing the task					
I liked trying out different creative variations					
I can apply design thinking process to problem solving					
I enjoyed working in collaboration with my group					
<b>Additional Comments:</b>					
What I liked the most:					
What can be done better:					
What can be Added/Changed:					

## Teacher Feedback Form:

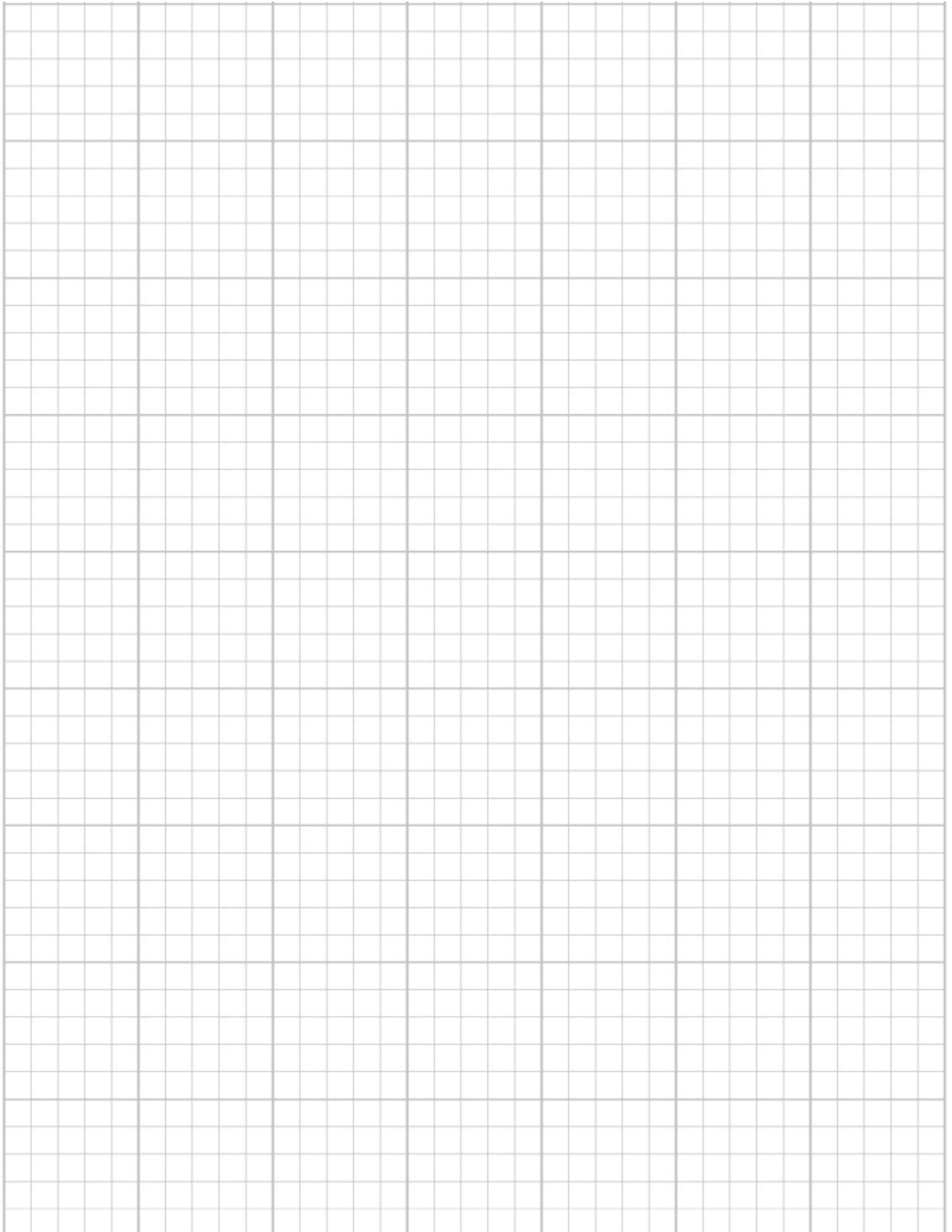
NAME	CLASS	MODULE	TASK	ACTIVITY	DATE

### Comments:

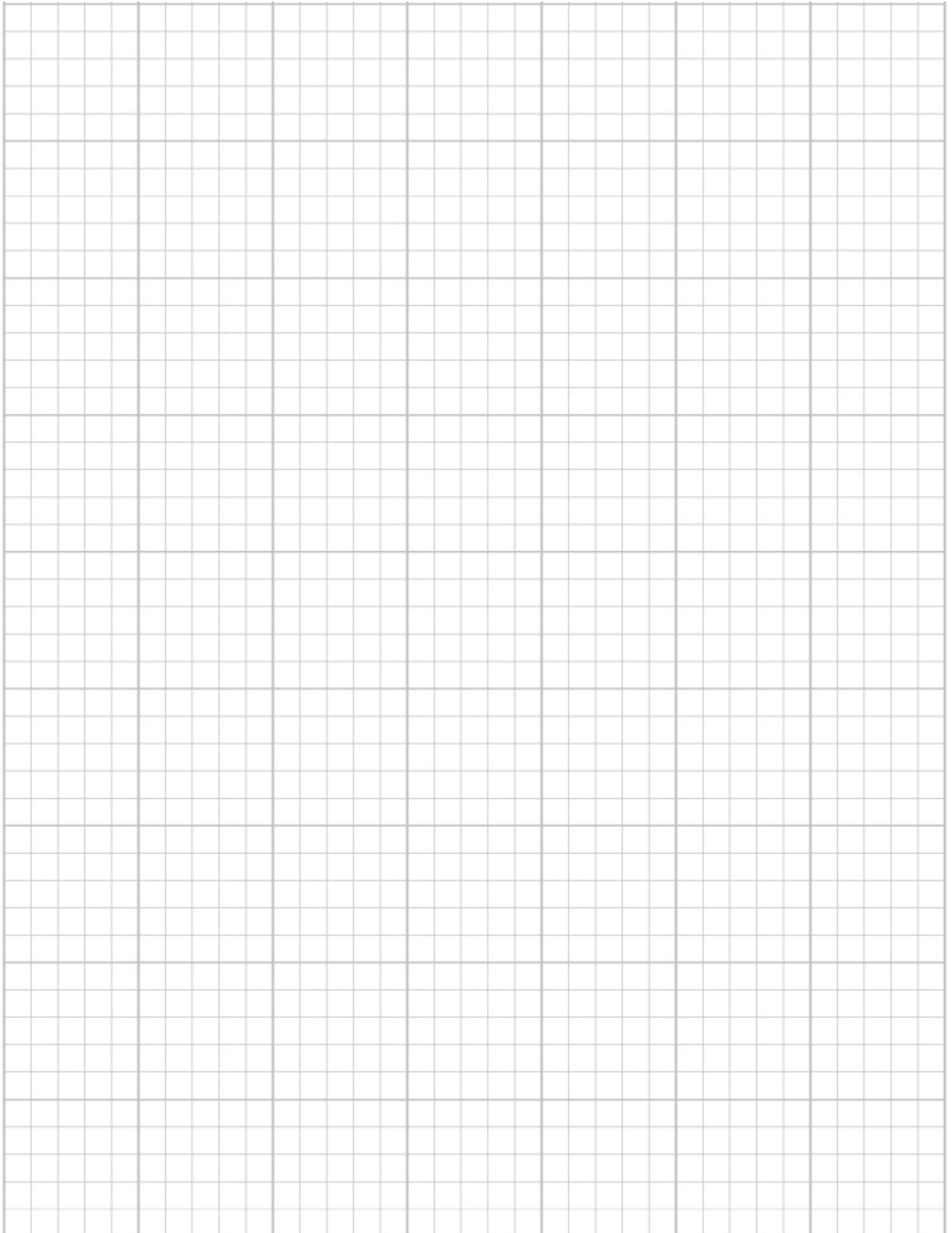
- place a tick mark in the corresponding box.

	COMMENTS				
It was easy to deliver the exposure modules:	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
Your comments:					
It was easy/satisfying/enjoyable to conduct the task activities:	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
Your comments:					
No issues were faced with regard to assessment of the task:	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
Your comments					
Common questions posed by the students:					
Suggestions for improving the task or suggestion of another task:					
Other suggestions, if any:					

Grid layout for sketches and taking notes:



Grid layout for sketches and taking notes:





# Credits

## Acknowledgement and Credits:

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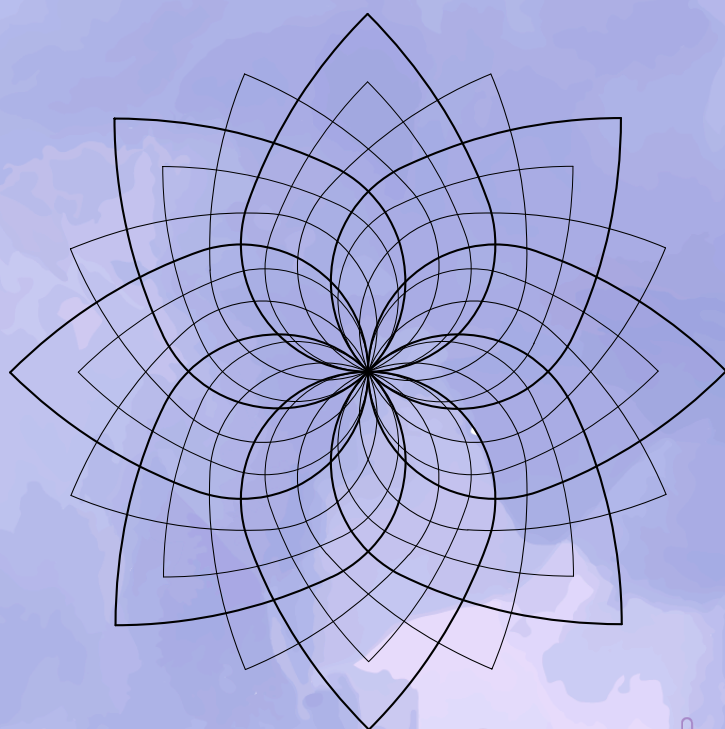
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**Design Thinking and Innovation**  
for Grade 7  
**Taskbook**  
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Hope you enjoyed the tasks!



CBSE, New Delhi

