

5.0 Module 5

Fundamentals of Sketching for Ideation :

18 hours (12 in school and 6 at home)

Design
Skills



Design
Sensitivity



Exposure 1

Exposure 2

Exposure 3

Exposure 4

- Sketching by Inventors and Designers
- Drawing from the Rightside of your Brain
- Simple Rendering Techniques
- Principles of Perspectives

Task 5.1 (at School + Home)

- Sketching Creative Alternatives

Task 5.2 (at School + Home)

- Doodling with Images for Ideation

Task 3.3 (at School + Home)

- Sketching Viewpoints

Task 3.4 (at School + Home)

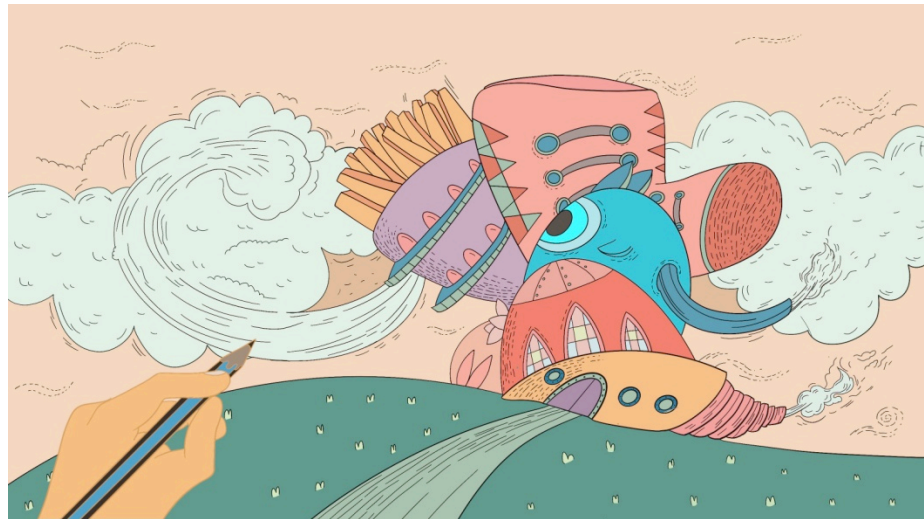
- Sketching in 3D

Final Output

- Make a presentation of all your sketches
- + Reflections, Self Assessment and References

Fundamentals of Sketching for Ideation

18 hours (12 in school and 6 at home) = 18 credits



Introduction

Sketching is a way of externalising your ideas and thoughts, making it visible and giving them shape and form.
 Sketching involves imagination.
 Sketching can be used for recording or documenting an idea or thought process.
 The sketching becomes an extension of thinking and makes visible what is in one's mind.

Aim of the Course:

To expose school students to fundamentals and sketching for ideation. The emphasis of sketching is mainly for the representation of different concepts as visual images.
 Sketching becomes very useful for generating several creative alternate solutions. These sketches could be done very quickly – also known as Rapid Sketches.

In addition, the students will also learn the principles of representing 3D objects as sketches.

Place:

Place: Task 5.1, 5.2, 5.3 and 5.4 done at School and at home



Grouping:

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



Equipment:

Equipment: Sketchbooks for sketching, Stationary (Pencils, Pens, Colours, Tracing paper, Black Ink and brush or brush pen, colour pens), students may use digital devices like computers or tablets (if available, but not necessary)

Exposures:

Exposure 1 (prerequisite): Sketching by Inventors and Designers (L Da Vinci, Edison, Einstein, Le Carbusier, Hussain, etc.,

Exposure 2: Drawing from the Rightside of your brain (excerpts from the book by Betty Davis)

Exposure 3: Principles of Perspective

Exposure 4: Simple Rendering techniques

Design Thinking & Innovation Process involvement:

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

Phase 1. Observe/Empathise/Research (Sketching Observations)

Phase 2. Understand/Analyse/Define (Sketching Mappings)

Phase 3. Ideate/Alternate/Create (Sketching creative alternatives)

Phase 4. Build/Prototype/Detail (Sketching Scenarios)

Phase 5. Evaluate/Reflect/Implement (Sketching for Presentation)

Mapping SDG Goals:

The following SDG goals need to be considered while solving this task. While documenting elements and expressions, do think of gender equality and reduced inequalities and concern for life on our planet.



Task 5

Task 5 = 5.1 + 5.2 + 5.3 + 5.4

School Hours: 12, Home hours: 6



Task 5.1



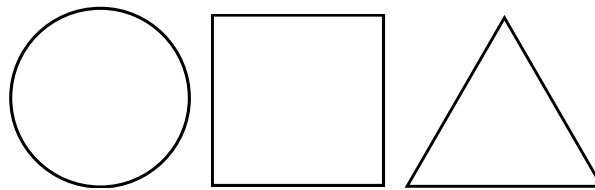
Task 5.1:

School hours: 2 done individually

Task Title:

Sketching Creative Alternatives

Here the students will try creative explorations of shapes through sketching



Task 5.1 Fill up a shape with similar shaped objects

1. Chose one of these shapes - a Circle / a Square / or a Triangle
2. Draw and repeat 10 circles in pencil of dimension 5cm on an A4 size sheet
- Circle with diameter 5cm, Square and Triangle with the sides as 5cm
3. Draw objects that are similar in shape with the chosen shape
- for example: a clock inside circle, a dice inside square, a tent under triangle, etc.
4. Draw 10 different objects in the 10 shapes
5. Use pencil 2B or 0.5 black ink pen to do these drawings

Output 5.1: Sketches of 10 alternatives inside the chosen shape

Task 5.2



Task 5.2:

Home hours: 3, done individually

Task Title:

Doodling with Images for Ideation

Task 5.2: Doodle your idea of an alien /friendly monster

1. Make a sketch of an Alien or a friendly Monster based on inspiration from the form and structure of an **Insect**
- Creating these are fun, because you can choose any number of eyes, ears, noses, mouths, heads, hands, bodies and legs
2. Choose an insect
2. Study and make sketches of the structure and body parts of the insect
3. Map/Combine the features of the insect with that of Alien/friendly Monster
4. Draw it using 0.5 black ink or using a 2B pencil on an A4 size paper

Output 5.2: Sketch of the Alien/friendly Monster

Task 5.3

Task 5.3:



Home hours: 3 done individually

Task Title:

Sketching Viewpoints

Here the students will try sketching from different points of view. When one changes one's point of view (physically) with regard to an object or situation, different features are perceived and the focus and hierarchy in the composition may change.

Task 5.3 Fisherman and the boat viewpoints

Given below is a sketch of a fisherman on a boat

1. Redraw this sketch from these points of view (any 3 of them)

- A. As a fish under the water sees it
- B. As seen by a bird flying above
- C. As seen by the fisherman
- D. As seen by an ant crawling on the boat
- E. As seen by the cat on the boat

2. Use Soft pencil like 2B and above to do the sketching on A4 size sheets

Output 5.3: 3 Sketches showing different viewpoints of the fisherman on a boat

Task 5.4



Task 5.4:

School Hours: 10, done individually

Task title:

Sketching in 3D

The students will learn the basics of representing objects in three dimensions. These drawings are important for understanding the shape of the object and then to making or constructing it.

Task 5.4a: 2D Drawings of a 3D shape

School Hours: 4, done individually

Terminologies: what are Plan, Elevation and Section

Plan: refers to the object as seen from above

Elevation: view of the object from its side (front view, right side view, left side view and back view)

Section: view of the object when it is cut

1. Take a simple 3D objects like a pencil box/ a table Clock and a Mango fruit/apple fruit

2. Draw the different points of view – Plan, Elevation and a Section of the object as outline drawings

- The Elevation can be any of these: front view, right side view, left side view and back view

- You could consider a cross section in the middle of the object

3. Mark the dimension of the object in centimeters/inches

Output 5.4a: Drawing of the Plan, Elevation and Section of the chosen object

Task 5.4b: Perspective in 1 point and 2 point

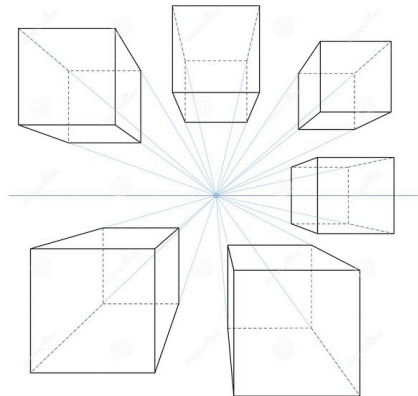
School Hours: 6, done individually

Terminologies: 1 point perspective and 2 point perspective

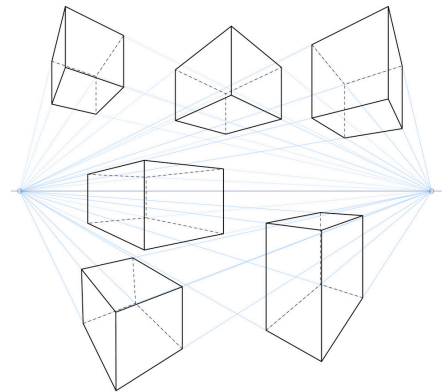
1 Point Perspective: one point perspective has one vanishing point placed on the horizon line.

2 Point Perspective: two-point perspective has two vanishing points placed on the horizon line.

Examples of 1 Point Perspective and 2 Point Perspective:



1 Point Perspective



2 point perspective

1. Take a cube and draw its outline in one point and two point perspective
2. Refer to the exposure slides to construct each one of these

3. Take a simple 3D objects like a pencil box/ a table Clock
4. Draw it in both 1 point as well as 2 point perspective

Output 5.4b: Drawing of One Point and Two Point Perspective of the cube and of the chosen object

References:

1 and 2 Point Perspective:

<https://www.dsource.in/course/product-drawing/perspective>

<https://www.youtube.com/watch?v=aFjSG5G-FxA>

<https://www.youtube.com/watch?v=gY-2iUdm9Cc>

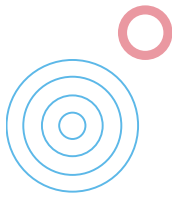
Reflection:



Questions to ponder:

- Will you start a sketchbook to note down the ideas that you think of?
- Will you try doing multiple sketches to come out with alternate ideas?
- How about doing a visual narrative through sketches of a journey that you undertake?

Self Assessment:



Assessment Criteria (Task 5.1 + 5.2 + 5.3 + 5.4 + 5.5) – Assess yourself:

- The sketching of 10 creative alternatives of the shape is done well. (Individual Assessment, Task 5.1)

☐ *Beginning* ☐ *Developing* ☐ *Promising* ☐ *Proficient* ☐ *Excellent*

- The Sketch of the Alien/friendly Monster is done well. (Individual Assessment, Task 5.2)

☐ *Beginning* ☐ ☐ *Promising* ☐ ☐ *Excellent*

- The sketches showing different viewpoints of the fisherman is done well. (Individual Assessment, Task 5.3)

☐ *Beginning* ☐ ☐ *Promising* ☐ ☐ *Excellent*

- The drawing of the Plan, Elevation and Section of the chosen object is done well. (Individual Assessment, Task 5.4a)

☐ *Beginning* ☐ *Developing* ☐ *Promising* ☐ *Proficient* ☐ *Excellent*

- The drawing of One Point and Two Point Perspective of the cube and of the chosen object is done well. (Individual Assessment, Task 5.4a)

☐ *Beginning* ☐ ☐ *Promising* ☐ ☐ *Excellent*

Other References:

Other suggested References:

1. Product Drawing

<https://www.dsource.in/course/product-drawing>

2. Introduction to Drawing Basics + Advanced:

<https://www.dsource.in/course/introduction-drawing-basics>

<https://www.dsource.in/course/introduction-drawing-advanced>