

# Design Foundation

Design foundation appears to be a much bigger course than the others. In actuality a lot of the content is reinforced through out the programme. The purpose of Design foundation is to staircase knowledge through the three levels building competency familiarity.

- Design Process
- Elements of Design
- Principles of Design
- Typography
- Colour
- Ethics and Copyright

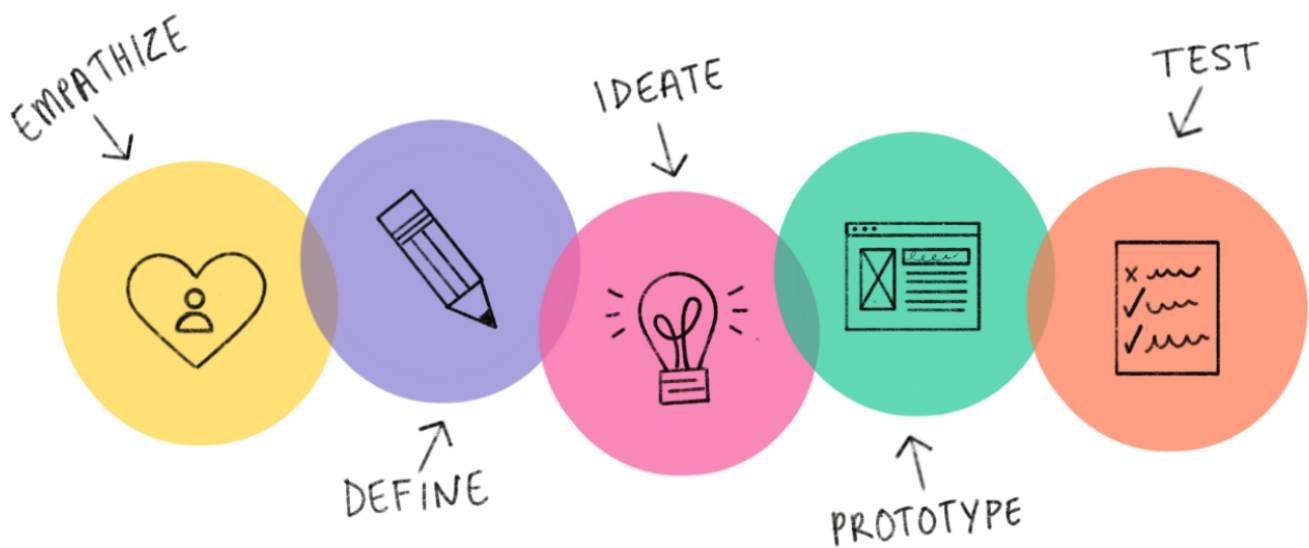
# Design Process

The design process is a step-by-step approach used by designers to ensure that they produce the most effective design. It involves thinking, discussion, research, analysis, problem solving and developing ideas. This is the foundation work required for an effective design solution.

It is important to note that the design process is not strictly linear.

## Design thinking process

Design thinking is a non-linear, iterative process which seeks to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test. The method consists of 5 phases—Empathize, Define, Ideate, Prototype and Test and is most useful when you want to tackle problems that are ill-defined or unknown.



### Stage 1: Empathize – *Research Your Users' Needs*

The first stage of the design thinking process allows you to gain an empathetic understanding of the problem you're trying to solve, typically through user research. Empathy is crucial to a human-centered design process like design thinking because it allows you to set aside your own assumptions about the world and gain real insight into users and their needs.

### Stage 2: Define – *State Your Users' Needs and Problems*

In the Define stage, you accumulate the information you created and gathered during the Empathize stage. You analyze your observations and synthesize them to define the core problems

you and your team have identified so far. You should always seek to define the problem statement in a human-centered manner as you do this.

### Stage 3: Ideate – *Challenge Assumptions and Create Ideas*

Designers are ready to generate ideas as they reach the third stage of design thinking. The solid background of knowledge from the first two phases means you can start to “think outside the box”, look for alternative ways to view the problem and identify innovative solutions to the problem statement you’ve created.

### Stage 4: Prototype – *Start to Create Solutions*

This is an experimental phase, and the aim is to identify the best possible solution for each of the problems identified during the first three stages. Design teams will produce a number of inexpensive, scaled-down versions of the product (or specific features found within the product) to investigate the problem solutions generated in the previous stage.

### Stage 5: Test – *Try Your Solutions Out*

Designers or evaluators rigorously test the complete product using the best solutions identified in the Prototype phase. This is the final phase of the model but, in an iterative process such as design thinking, the results generated are often used to *redefine* one or more further problems. Designers can then choose to return to previous stages in the process to make further iterations, alterations and refinements to rule out alternative solutions.

<https://www.interaction-design.org/literature/topics/design-thinking>

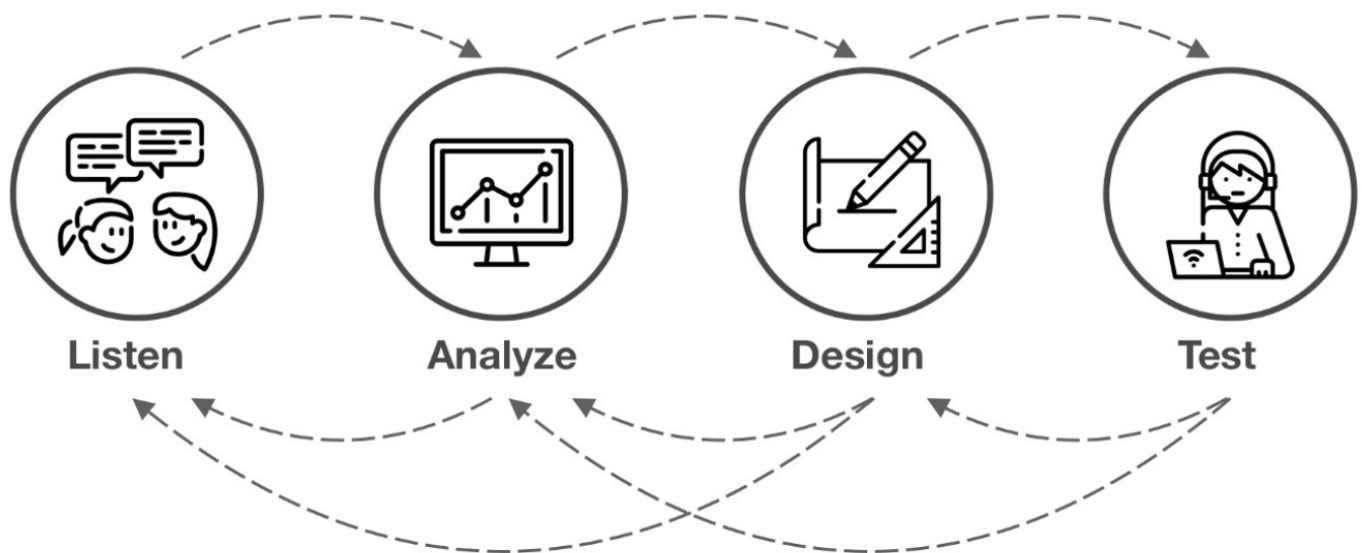
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# DESIGN THINKING

## A FRAMEWORK FOR INNOVATION



## Design Process



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learning objectives

## Level 4

- Describe key stages in the design process.
- Create work that satisfies individually, key stages in the design process.
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### Interactions, engagements and activities

Activities that require learners to brainstorm multiple solutions to the same problem are a great way encourage idea generation.

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## Level 5

- Plan the the application of a design process, identifying key milestones and expected time spent at each stage.
- Produce work that appropriately meets the requirements of each stage of a design process.
- Use an iterative approach to a design process

### Interactions, engagements and activities

Activities that encourage learner to work through multiple stages of a design process.

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## Level 6

- Document own design process and apply it while creating design work.
- Compare differing processes and evaluate their effectiveness.
- Create design briefs.
- Describe a range of methodologies, mindsets, systems or procedures that can be applied to a design process. (Human centred, User experience, Agile, Lean)
- Use project management techniques and tools to work collaboratively. (Kanban, trello, Scrum)

### Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

# Elements of Design

The main elements are:

- Line
- Color
- Shape
- Form
- Value
- Space
- Texture

A solid understanding of these concepts gives you the ability to understand your design pieces and others you come across. You'll be able to dissect a design piece and see the behind-the-scenes process. Let's take a closer look at each element to have a better understanding of how they work and how to use them.

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## Line

Lines are the most basic elements of design. They come in all shapes, sizes, and colors. Once you start noticing them, you'll see grids all around you. Lines have direction; they can be visible or invisible and can help direct the eye to a specific spot. The thickness of a line can also communicate certain cues. Bold and thick lines can draw attention, while thin lines are the opposite.

## Shape

A shape is the result of enclosed lines to form a boundary. Shapes are two-dimensional and can be described as geometric, organic, and abstract.

- **Geometric shapes** have structure and are often mathematical and precise (squares, circles, triangles). You'll notice that the Swiss graphic design movement from the 1950s used mostly geometric shapes in their designs. Shapes can add emphasis to a layout.
- **Organic shapes** lack well-defined edges and often feel natural and smooth. Shapes add emphasis to a layout.
- **Abstract shapes** are a minimalist representation of reality. For instance, a stick figure of a person is an abstract shape. Logos are mostly represented by abstract figures to show the type of business. The icon pack below is a great example of abstract shapes conveying real-life objects and situations.

# Form

On a page, form is the positive element over the space, the negative element. A dot, line, or shape is a form when placed on a page. Unfortunately, form and shape are mostly used interchangeably. A form can be either two-dimensional or three-dimensional. Many also believe that form is a shape that acquires three-dimensional values, but the correct term is volume.

# Space

Space is the area that surrounds a shape; it creates a form within the space. Think of it as music: space is the silence between the notes of a song. If all the notes were played together, that would turn into noise.

# Colour

We can apply color to any of the elements we mentioned before this point. Colors create moods and can say something different depending on the connotations associated with it. Color can create an emphasis on specific areas of your design layout.

This element contains multiple characteristics:

- **Hue** is the name of a color in its purest form. For instance, cyan, magenta, and green are pure colors.
- **Shade** is the addition of black to a hue in order to make a darker version.
- **Tint** is the addition of white to a color to make a lighter version.
- **Tone** is the addition of grey to make a color muted.
- **Saturation** refers to the purity of a color. A specific color is most intense when it is not mixed with white or black.

# Value

Value refers to the degree of lightness and darkness of a specific hue. Yellow has a higher value than purple because it is closer to white. Value changes create contrast on a page. The reason you can read this text is that the black content contrasts with the white background.

# Texture

Texture adds a tactile appearance to a design layout. Imagine how a design piece would feel if you touched it. The goal of texture is to add depth to a 2D surface. Texture can be applied graphically through patterns, either digitally created or an image mimicking the desired pattern. Below is an example of an abstract geometric pattern made up of basic geometric elements.

<https://design.tutsplus.com/articles/the-basic-elements-of-design--cms-33922>

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# learning objectives

## Level 4

- Learning objectives for level 4, consider blooms taxonomy, learning outcomes, GPOs and learner engagement.
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## Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

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## Level 5

- Learning objectives for level 6, consider blooms taxonomy, learning outcomes, GPOs and learner engagement.
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## Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

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## Interactions, engagements and activities

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# Principles of Design

The principles of design are a set of rules that designers can follow when creating a composition to create visually pleasing work. The purpose of these rules is to deliver a message in the most organized and functional way.

Here's a list of the main design principles:

- Balance
- Unity
- Contrast
- Emphasis
- Repetition
- Pattern
- Rhythm
- Movement
- Proportion
- Variety
- Harmony

While we've seen a fair share of experimental pieces out there, it's important to know the significance of the fundamentals. Every design piece has a structure below the surface that holds up the design and makes it visually interesting and balanced. Once designers understand the usage of the principles, they'll understand better how to break these rules.

<https://design.tutsplus.com/articles/the-principles-of-design--cms-33962>

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## Balance

Any element placed on a page carries a visual weight. It can range from form to size, color, and texture. In order to make a design feel stable or have balance, the elements need to have a certain scale.

## Unity

Unity is the harmony produced by all the elements in a design piece. For instance, using similar colors that match and integrate elements organically makes it appear as if they belong together and are not just put on a page.

# Contrast

Contrast refers to the level of difference between design elements in order to create visual hierarchies. The variation makes certain elements stand out more than others. You can apply contrast by using colors, textures, sizes, and shapes.

# Emphasis

Emphasis is a strategy to get the viewer's attention to a specific design element. This can be in any form: a button, a website, or an image. The purpose is to create something that will stand out from the rest of the page. You can use different elements to highlight a specific part of your design, like lines, color, positive/negative relationships, and many more. As long as you can create contrast, either with elements or color, you'll be creating emphasis.

- **Lines** create direction on a page by pointing to specific elements that help the viewer's eyes know where to go.
- **Shapes** can also draw attention. Using a group of similar shapes and breaking the group with a different shape will create tension and draw the eyes.
- **Color** can create an emphasis in any design. Buttons on a website tend to contrast with the background to create a sense of urgency and attention.
- **Texture** can be seen in materials to enhance tactile features. For instance, a business card can have an emboss or relief on a logo to emphasize it. Digitally, texture can be applied as a drop shadow on a button to appear three-dimensional.
- **Space** is also an option to emphasize certain elements in your design. Enough white space around an object can prioritize the focus on a single element. For instance, Apple has a clean and direct idea of emphasizing products.

# Repetition

Using repeated elements on a layout can be pleasing to the viewer. Repetition is repeating a single element through the design. We can call a grid a repetition of lines because it creates a certain consistency. In layout design, repetition is shown through the folio placement to help viewers find their way in a book or magazine. The same folio placement creates continuity in the repetition.

# Pattern

Pattern is the repetition of more than one design element. While repetition focuses on a single element being repeated, pattern refers to multiple elements repeated throughout a design (e.g. wallpapers and backgrounds).

# Rhythm

Rhythm has more complexity than the previous principles of repetition and pattern. Repetition and pattern are applied to the same element throughout a design. Rhythm is the visual tempo of a

combination of elements when used repeatedly, and with variation, it gives the feeling of organized movement.

## Movement

Movement refers to the path the viewer's eye takes through a composition. In an image, every element can affect how the eyes move. Important elements will lead to secondary elements and so on. Movement in a composition creates interest and dynamism that keeps the viewer engaged.

## Proportion

Proportion is the sense of unity created when all the elements in a composition relate well with each other. Proportion is mostly about scale and size when two elements are compared. For instance, in art and drawing, proportion is important for the elements to look realistic. Proportion doesn't necessarily refer to the size of one element but to the relationship of two or more elements.

## Harmony

Harmony is the sense of cohesiveness between the elements in a composition. The elements shouldn't be exactly the same or completely different but related in some way. Color palettes or similar textures can create a sense of unity between different components. Using similarly shaped items will create harmony because they will seem related.

Not enough or too much harmony can make a design dull; there needs to be some kind of variety for it to be visually interesting.

## Variety

Creating visual interest will keep viewers engaged with your design. Holding their attention and guiding them through the composition will create a powerful user experience. Variety adds something interesting to the composition to create contrast and tension. For instance, mixing organic shapes with geometric shapes adds variety. This concept should reinforce the message you are trying to communicate in your design—otherwise, it can look pointless.

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# learning objectives

## Level 4

- Recognise and describe the use of basic principles in existing work. (C.R.A.P)
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## Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

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## Level 5

- Describe how principles of design have been used in own work.
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## Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

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## Level 6

- Learning objectives for level 6, consider blooms taxonomy, learning outcomes, GPOs and learner engagement.
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## Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

# Typography

Typographic skills are essential for designers communicating using written language. Building a greater understanding of how to select and control typefaces to convey a message, create hierarchy and embellish design work.

In essence, typography is the art of arranging letters and text in a way that makes the copy legible, clear, and visually appealing to the reader. Typography involves font style, appearance, and structure, which aims to elicit certain emotions and convey specific messages. In short, typography is what brings the text to life. (stolen from here <https://careerfoundry.com/en/blog/ui-design/beginners-guide-to-typography/>)

<https://creativemarket.com/blog/typography-rules>

<https://bookstack.chesterwhitwell.co.nz/books/typographic-classification-and-anatomy/>

## learning objectives

### Level 4

- Describe and recognise major type classifications. (eg. Serif, Sans-Serif, Script, Display)
- Select and use combinations of type-faces in design work.
- Efficiently and effectively control typefaces in software. (Font and family, Size, alignment)
- Apply fundamental principles of design to the use of typography in design work.

### Interactions, engagements and activities

Learner should be exposed to example of major type classification and be made aware of sub-categories. Encouraged to memorise major classification and be able to recall the names of type face that fall into them.

Activities that involve typeface identification and sorting are a great way to encourage memory.

Picking typefaces that resemble logos they know or associating them with a particular adjective. (eg. choose a type face that resembles strength)

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### Level 5

- Describe and recognise sub-categories of type classifications. (eg. Old style, Modern, Transitional, Grotesque, Geometric, Humanist)
- Use typographic terminology to describe typefaces and letterforms.
- Efficiently and effectively control typefaces in software to maintain consistency within and between documents. (Tracking, Kerning, Paragraph and Character styles). *(maybe move to Graphic Design)*
- Describe the effect on Readability and Legibility typographic choices have.

### **Students Will:**

1. Should be confident following the Yoobee house rules for typography, selecting and controlling typographic elements in a piece of design work.
2. Be able to recognise and correct common typographic errors and be able to use type appropriately for a range of unique outcomes

## **Interactions, engagements and activities**

Demonstration that show how to identify common typographic errors and how they occur.

Activities that require learners to identify common typographic errors in existing documents, and allowing students time to correct the errors.

Asking students to refer to the house rules before completing a document.

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## **Level 6**

- Describe historic influences on typography.
- Modify existing typefaces and construct new ones.
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## **Interactions, engagements and activities**

# Colour

Colour is a powerful design element that can be used to attract attention, affect feelings and moods, or convey a message instantly.

## learning objectives

### Level 4

- Identify primary, secondary and tertiary colours and describe their relationships.
- Use basic colour associations while creating work.
- Select, create and apply colours using basic software techniques. (swatches, eyedroppers, color mixers)
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### Interactions, engagements and activities

Colour selection activities.

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### Level 5

- Identify and describe colour palettes in existing work using colour harmony rules.
- Describe the three components of colour and use them describe colours in existing work. (Hue, Value, Saturation)
- Create colour palettes using colour harmony rules.
- Select and use appropriate colour space and profile option for a range of different outputs.
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### Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

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### Level 6

- Maintain colour accuracy within and between document using industry recognised best practice.
- Identify strengths and weaknesses of different output methods in relation to colour.
- Use overprint and knockout for special printing effects.
- Use mixed ink feature to...
- Describe the effect UCR and GCR have in print production.
- Identify cultural significance of colour.
- Identify psychological effects of colour.

## Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.



# Ethics and Copyright

Description of the purpose

## learning objectives

### Level 4

- Learning objectives for level 4, consider blooms taxonomy, learning outcomes, GPOs and learner engagement.
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### Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

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### Level 5

- Learning objectives for level 6, consider blooms taxonomy, learning outcomes, GPOs and learner engagement.
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### Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.

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### Level 6

- Learning objectives for level 6, consider blooms taxonomy, learning outcomes, GPOs and learner engagement.
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### Interactions, engagements and activities

Describe the types of interaction and activities that could help achieve the objectives.