

# DESIGN FUNDAMENTALS

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Prepared by FAHIM FARWK



## Introduction to Design

Design is a creative activity that involves the creation and development of plans for products, services, or experiences.

This process combines art and science to produce practical and aesthetically pleasing results. In design, various elements such as color, shape, space, and form are combined to create a final product that is both functional and attractive.

The main goal of design is to improve the quality of life by creating products and spaces that meet people's



## Elements of Design

The elements of design are the fundamental building blocks used to create visual compositions. These elements include:

1. **Line**: Lines can be straight, curved, thick, or thin, and are used to guide the viewer's eye, create shapes, and convey movement.
2. **Shape**: Shapes are formed by the boundaries created by lines. They can be geometric (like squares and circles) or organic (irregular shapes found in nature).
3. **Color**: Color adds interest and emotion to a design. It consists of hue, saturation, and brightness and can influence mood and perception.
4. **Texture**: Texture refers to the surface quality of an object, whether it is smooth, rough, soft, or hard. It can be tactile (physical) or visual (implied).
5. **Space**: Space is the area around and between elements in a design. It can create depth, balance, and emphasis.
6. **Form**: Form is the three-dimensional aspect of shapes, giving them depth and volume. It is essential in creating realistic and dynamic designs.



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## Color

**Hue:** Hue refers to the name of a color, such as red, blue, or yellow. It is the attribute that distinguishes one color from another.

**Saturation:** Saturation, or chroma, indicates the intensity or purity of a color. A highly saturated color appears vivid and bright, while a less saturated color looks more muted and gray.



**Brightness:** Brightness, or value, measures how light or dark a color is. Adding white to a color creates a tint, making it lighter, while adding black creates a shade, making it darker.

Colors can be categorized into primary, secondary, and tertiary groups. Primary colors (red, blue, yellow) cannot be created by mixing other colors. Secondary colors (green, orange, purple) are formed by mixing two primary colors. Tertiary colors result from mixing primary and secondary colors.



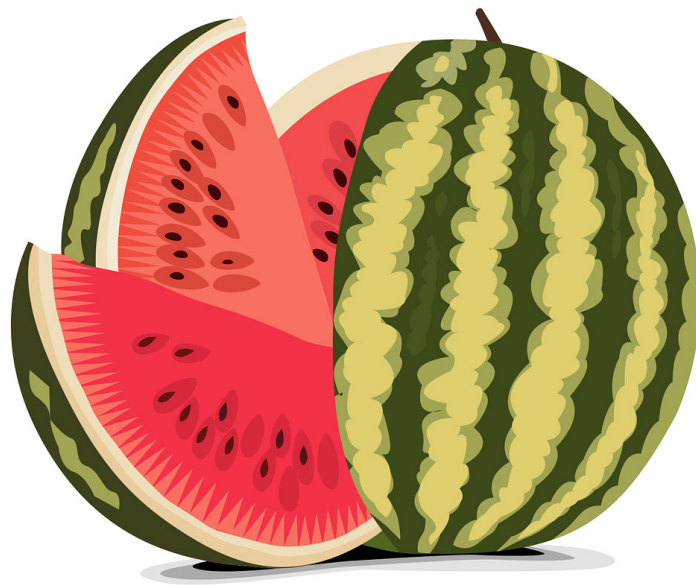
## Texture

Texture is a crucial element of design that refers to the surface quality of an object or material. It can be both tactile (physical) and visual (implied), influencing the overall feel and depth of a design.

**Tactile Texture:** This is the actual physical feel of a surface, such as smooth, rough, soft, or hard.

**Visual Texture:** This is the illusion of texture created through design elements like patterns, lines, and shading.

Texture adds depth and interest to a design, affecting how a viewer perceives it. Smooth textures convey sleekness and modernity, while rough textures suggest ruggedness and naturalness. Combining different textures creates contrast and guides the viewer's eye, enhancing the overall aesthetic of the design.





# Space

Space is a fundamental element of design that refers to the area around, between, and within components of a composition. It plays a vital role in creating visual structure and guiding the viewer's eye.

**1. Positive Space:** This is the area occupied by the main subjects or elements in a design. It is where the focus lies and where the most important visual information is placed.

**2. Negative Space:** Also known as white space, this is the empty or open area around and between the elements. Negative space helps to balance the composition, reduce clutter, and highlight the main subjects.

Space can influence the overall feel and functionality of a design:

- **Depth and Dimension:** Using space effectively can create the illusion of depth, making two-dimensional designs appear three-dimensional. Techniques like overlapping, shading, and perspective help achieve this effect.
- **Balance and Harmony:** Proper distribution of positive and negative space ensures that a design is balanced and harmonious, making it visually appealing and easy to navigate.
- **Emphasis and Focus:** Space can be used to emphasize certain elements by isolating them from others, drawing the viewer's attention to key areas.
- **Clarity and Readability:** Adequate spacing between elements, such as text and images, improves clarity and readability, enhancing the overall user experience.

Understanding and manipulating space allows designers to create more effective, organized, and aesthetically pleasing compositions.

## Form

Form is an element of design that refers to the three-dimensional quality of an object, adding depth, volume, and perspective. It transforms shapes into physical or visual structures, creating a sense of realism and dimension in a composition.

Forms can be geometric (like cubes and spheres) or organic (irregular and natural shapes). Understanding form helps designers create dynamic and lifelike designs.

