

## Key Words

- **Media/Medium** - The materials and tools used by an artist to create a piece of art.
- **Technique** - The skill in which an artist uses tools and materials to create a piece of art.
- **Abstract** - A piece of art which is not realistic. It uses shapes, colours and textures.
- **Style** - The technique an artist uses to express their individual character in their work.
- **Composition** - The arrangement and layout of artwork/objects.
- **Highlight** - The bright or reflective area within a drawing/painting where direct light meets the surface of the object or person.
- **Shadow, shade, shading** - The tonal and darker areas within a drawing/painting where there is less light on the object or person.
- **Texture** - The feel, appearance or the tactile quality of the work of art.
- **Mark making** - Mark making is used to create texture within a piece of art by drawing lines and patterns.
- **Collage** - A piece of art made by using a variety of materials such as paper/newspaper/photographs which are cut out, rearranged and glued on a surface.

## The Colour Wheel



There are different categories of colours based on the **colour wheel**: primary, secondary, tertiary, warm, cool and complementary.

### Primary Colours: Red, yellow and blue

In traditional colour theory (used in paint and pigments), primary colours are the 3 pigment colours that cannot be mixed or formed by any combination of other colours. All other colours are derived from these 3 hues.

**Secondary Colours:** Green, orange and purple. These are the colours formed by mixing the primary colours.

**Tertiary Colours:** Yellow-orange, red-orange, red-purple, blue-purple, blue-green & yellow-green. These are the colours formed by mixing a primary and a secondary colour. That's why the hue is a two word name, such as blue-green, red-violet, and yellow-orange.

## Colour & Value

Colour is light reflected from a surface. There are 3 qualities: hue, value and intensity.

Value is one of the seven elements of art. Value deals with the lightness or darkness of a colour. Since we see objects and understand objects because of how dark or light they are, value is incredibly important to art.

## Elements of Art

**SHAPE:** Shape encloses a two-dimensional area. Geometric or organic.



**FORM:** Form encloses a three-dimensional area. It's the three-dimensional analogue of shape.



**LINE:** The edge of a shape or form or the direction followed by anything in motion.



**COLOR:** Light reflected from a surface. Three distinct qualities: Hue, Value, Intensity.



**VALUE:** Shadows/shades from lightness to darkness.



**SPACE:** The area between and around objects. Positive, negative, or three-dimensional.



**TEXTURE:** The surface quality of an object that we sense through touch.



## Tints and Shades

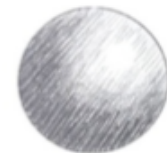
When dealing with pure colour (hue), value can be affected by adding white or black to a colour. Adding white to a colour produces a tint...



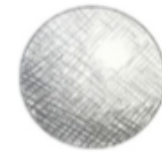
Adding black to a colour produces a shade...



## Shading Techniques



Hatching with parallel lines is the same as cross hatching, except you are making all the lines go in the same direction.



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Creating shades by "smudging" the applied shade. This is done by pressing and smearing the applied graphite with your finger, a soft cloth or a "stump".



Creating shades through a series of dots. Building up more dots closer together results in darker shading.

## Primary & Secondary Research

Sources of data and information fall into two categories – Primary and Secondary

**Primary data** is new data, gathered by the researcher. Sources include: interviews, focus groups, questionnaires and case studies

**Secondary data** is gathered as part of research or reporting on primary data. Sources include articles, books and magazines

## Ergonomics & Anthropometric

### Ergonomics

- The science of how humans interact with objects
- Design for efficiency and comfort in the working environment

### Anthropometrics

- Measurement of the physical properties of the human body
- It derives from the Greek words 'Anthropos' (human), and 'metron' (measure)
- Should this form primary or secondary research?

## Anthropometrics

Designers gather the measurements of the average individual human, looking at:

- Height, weight and length
- Angle of reach
- Viewing distance and viewing angles
- A typical example of anthropometrics looks at the correct way to sit at a desk to maintain a comfortable position
- Name two other items that have been improved by the use of anthropometrics

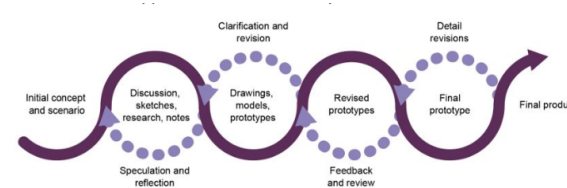
## Design Brief

This is the conclusion of all your research and data  
A statement of intent will summarise your design plan:

- What are you going to design?
- Who is the target audience?
- Where are they going to use the product?
- What is the budget?
- When does it need to be completed?
- What size does it need to be?

## Iterative Design

- The iterative cycle enables the designer to refine their work in progress
- By actually making the item, designers begin to fully understand it and how successfully it works
- Many versions will fail to work as well as intended
- The outcomes, good or bad, dictate the next step
- With every iteration, the results improve
- Using drawings, notes and models enables designers to work through a series of ideas
- These ideas are constantly revisited and reviewed at each stage of the design process to culminate in a finished product



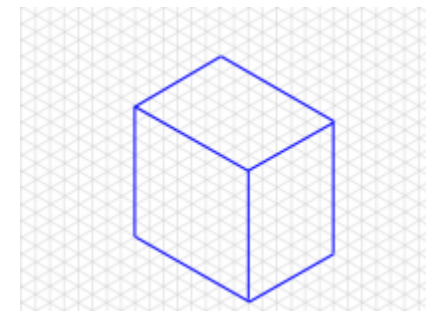
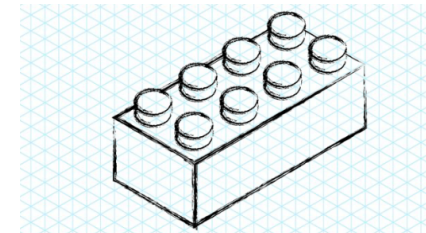
## Design Fixation

- Design fixation can negatively impact design
- It can limit creativity and result in similar or 'safe' design ideas
- Designers can fall into common pitfalls of:
  - not properly understanding a client's needs
  - failing to consider alternative solutions
  - lack of research into new materials or technology
- What strategies would you suggest designers utilise to keep their ideas fresh?

## Isometric Projection

Isometric drawings shows three faces of an object

- Lines leading away are all parallel instead of narrowing, towards a vanishing point which can create slight distortion
- Isometric grid paper can be a helpful guide when drawing in isometric projection



## Exploded Drawings

- An exploded drawing shows how component parts of a product are assembled
- Parts are aligned so you can clearly communicate where each part is from
- Exploded diagrams are often supplied with kit models or flat packed furniture
- Discuss how these diagrams can be useful

