## Design Briefs

A Design Brief is the statement of how you will solve the Design Problem
It will often include:

- Constraints/ limitations

- What the product is

- Materials/processes

- Any key information you know

## Design Specifications

A Design Specification is a list of requirements your product has to meet in order to be successful

It is also useful for evaluation. If your product hasn't met the Spec then it gives you a starting point for improvements.

| | |
|---|---|
| **Aesthetics** | What the product looks like? Style? Colour Scheme? Design Movement? |
| **Customer** | Who would buy it? (Age, gender, socio-economic, personality) How does the design appeal to them? |
| **Cost** | How much will it cost? (min-max) Why? |
| **Environment** | Where will it be used? Why? How will you make it suitable? |
| **Safety** | How is it safe? How will it be checked? Why must it be safe? |
| **Size** | What is the maximum or minimum size? Why? |
| **Function** | What does the product do? What features make it do that function well? How is it unique from similar products? |
| **Materials** | What is it made from? Why? |
| **Manufacture** | How might it be made? Why? What scale of production? Why? |

| Technique | Description/ notes | Diagram |
|---|---|---|
| **Orthographic Projection/ Working Drawings** | • Includes "Front", "Plan" and "End" 2D Views, and often an Isometric 3D View <br> • Standardised method for scale, dimensions and line types <br> • Great for manufacturing |  |
| **Isometric** | • Common 3D sketching method <br> • Can be drawn free-hand or using isometric paper and ruler <br> • Angles are at 30 degrees <br> • Great for seeing most of the products |  |
| **1-Point Perspective** | • A 3D drawing method <br> • Often used by interior designers and architects <br> • Gives drawings depth <br> • Only uses 1 vanishing point |  |
| **2-Point Perspective** | • Used for 3D designs <br> • Exaggerates the 3D effect <br> • Objects can be drawn above of below the horizon line but must go to the 2 vanishing points |  |
| **Annotated Drawings/ Free and Sketches** | • Quick and easy way of getting ideas down <br> • Range of ideas can be seen <br> • Annotation helps explain designs further |  |
| **Exploded View** | • Helps see a final design of a product and all it's parts <br> • Can see where all the parts fit <br> • Great for manufacturers |  |

## Modelling and Development

Modelling and development are key to testing and improving products
This can be done physically using materials like; card, foam, clay, man-made boards or virtually in **CAD**
Modelling helps the designer get feedback from the customer, check aesthetics, function, sizes and even materials and production methods and change them if needed