



Technology

Discovering Design – Unpacking Products

Virtually everything around us and everything we use every day has been designed. Many different designers work in our modern society, usually specialising in designing one type of product. The pens we use, the chairs we sit on, the rooms in which we spend our time – all of these things are the result of decisions made by designers.

In our day-to-day lives we take design for granted. We use pots to cook with, scissors to cut with, we sleep on beds, sit on chairs and climb up stairs. We rarely stop to think how these objects came into existence – and what design decisions went into their creation to make them work and look the way they do.

Design decisions relate to many aspects of an object. They include decisions about the use of an object, its size and weight, how it will be constructed, what materials are to be used in its construction, what it will look like, how much it will cost and how long it will last.

It is important for you as future designers to understand how products are conceived and built, and what design decisions are made in that process.

“Unpacking” the design of an object will lead you to the design decisions that were made in its conception – you can then use this knowledge in your own design work. Make sure you consider the most obvious decisions as well as those that are more subtle. For example, a chair must have a height suitable for sitting on (an obvious design decision), but a particular chair may also be designed to fit under a standard table (a more subtle design decision).



Design Challenge – Asking the Right Questions

Before an object is made, it must be designed. Whether this design process is simple or complex, there are a number of questions that must be asked before construction can begin. Good design will greatly enhance the success of an object, and asking the right questions in the design process will greatly enhance the success of the design. Many design decisions are made according to a design “brief” – the following suggestions of design questions and considerations may already be included in a design brief, or you can incorporate them.

Use of the object

How is the object going to be used? Who is going to use it? How will other design considerations affect its use? Determining the use of an object is an important first step in considering its design, but it is also worth checking your design will still work after you have considered all the other design elements.



Aesthetics of the object

Aesthetics relates to the appearance, beauty and feel of an object and is another important design element. Sometimes aesthetic decisions are purely up to the designer, sometimes they relate to the person who will use the object. What shapes are appealing? Do the dimensions of the object seem correct? Are different parts of the object in proportion to each other? What colours are right? How will the object fit into its intended surroundings? What sort of finish will look best?

Durability of the object

How long do you expect this object to last? Will it be used inside or outside? Does it need protective finishes? Will it be used for food or liquid? Does it need to withstand heat or moisture? Will children be using this object? Is it decorative or does it need to withstand heavy handling?

Construction materials

Asking questions about which materials to use relates to all of the above questions. Once you have a clear idea about the way you want your object to look and work, you can choose a material that will meet your criteria. Sometimes designers work the other way round – they find a beautiful material that they enjoy working with and ask what they could make with that material to enhance its qualities.



Construction methods

There is nothing worse than spending long periods of time designing an object only to discover that it is unable to be built. Ask questions about how you will construct the object. Is the construction method the most suitable for its intended use? Will construction methods affect the appearance or durability of the object?



Cost of the object

Asking questions about the cost of an object may be important if you plan to sell it later, and it is also important to know that you can afford to build it in the first place. Is the cost of materials or processes a consideration in your design? Do you need to investigate cheaper materials for some elements? How much will your object cost to build? How long will it take to build? Could you use recycled materials? What about the environmental cost – is this important to you?

Once you have settled on all the elements in your design, sit back and think about it carefully as a whole design. Does it give you all the answers you want? Could you change anything that would make it work better or look better? What do other people think of your design? Can you now develop it into a built object?

