

Core Technical Principles (Key words)

Switch

Light bulb

Voltage

Current

Electricity

Energy

Wire

Solder

Wire stripper

Wire cutter

Insulator

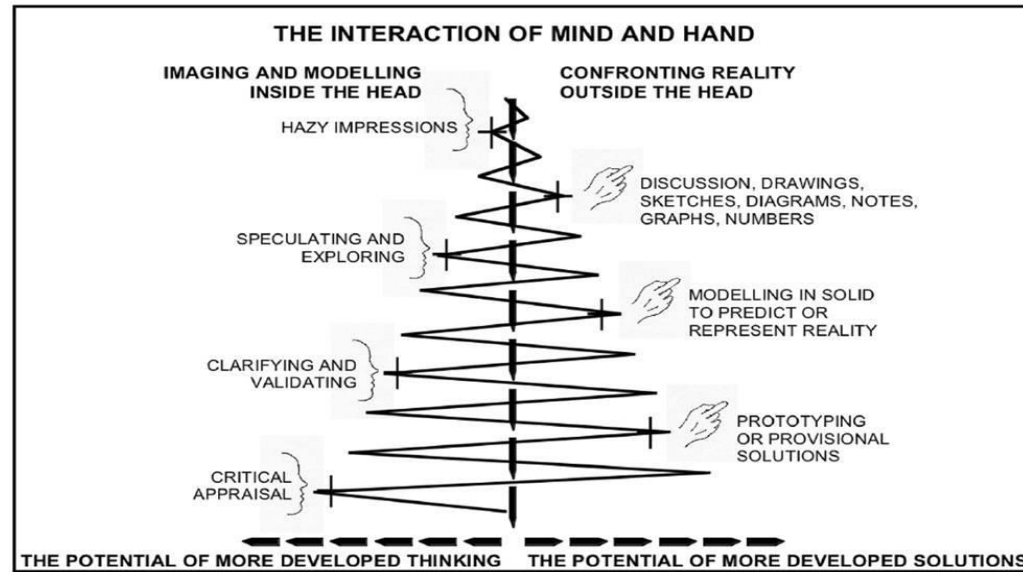
Conductor

Battery (Cell)

Extension: CAFEQUE

- Customer
- Quality
- Aesthetics
- User
- Function
- Environment
- Ergonomics

Year 7 Design and Technology Knowledge Map 2 Design and Technology



Specialist Technical Principles (Key words)

Risk Assessment

Soldering

Tinning

Recycle

Reduce

Reuse

Health and Safety

PPE- Personal protection equipment

Goggles

Apron

Hair tie

Extraction

Risk Assessment

Designing and Making Principles

Brief

The starting point for any design is the design brief. The brief outlines what problem a design will solve. It should be referred to throughout the project to make sure what you are working on will solve this problem.

Research

Market research means finding out what people want from a product. It includes studying trends and shopping habits. This can be done by conducting surveys, questionnaires, and telephone interviews.

Specification

The specification describes the needs of the product. It should include:
Size, shape, costs, materials, equipment, aesthetics, target market

Ideas

Ideas are created in different ways and show a response to what the brief is asking you to do, ideas can be drawn or modelled and should be evaluated to consider whether they meet the specification.

Development

Ideas and models need to be developed in order for the idea to progress and improve. The development process can also include exploring different materials, techniques and processes and deciding which ones to use for a particular task.

Evaluation

This means assessing a product and it is done throughout the design and production process. Designers need to evaluate their own products and products that already exist. To evaluate a product, a number of questions have to be considered, such as:

Does the product meet the specification? Does it meet the needs of the user? Is it fit for purpose?