

Year 1

Designing

- Generate initial ideas and design criteria explaining their work through own experiences
- Design appealing products for a particular user based on simple design criteria
- Develop and communicate these ideas through talk and drawings and mock ups where relevant

Making

- Select and use simple utensils, tools and equipment to perform a job e.g. peel, cut, slice, squeeze, grate and chop safely; marking out cutting, joining and finishing; cut, shape and join paper and card
- Select from a range of ingredients and materials according to their characteristics to create a chosen product

Evaluating

- Taste, explore and evaluate a range of products to determine the intended user's preferences for the product
- Evaluate their ideas throughout and finished products against design criteria, including intended user and purpose

Technical vocabulary focus

planning, investigating design, evaluate, make, user, purpose, ideas, product

Year 2

Designing

- Generate ideas and design criteria explaining their work through own experiences
- Design appealing products for a particular user based on simple design criteria
- Develop, model and communicate these ideas through talk and drawings and mock ups if possible

Making

- Plan by suggesting what to do next
- Select and use tools, equipment, skills and techniques to perform practical tasks, explaining their choices
- Select new and materials, components, reclaimed materials and construction kits to build and create their products
- Use simple finishing techniques suitable for the products they are creating

Evaluating

- Explore a range of existing products related to their design criteria
- Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria

Technical vocabulary focus

planning, investigating design, evaluate, make, user, purpose, ideas, product

Year 3

Designing

- Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s
- Use annotated sketches, prototypes, final product sketches and appropriate ICT to develop and communicate ideas

Making

- Plan the main stages of making
- Select from and use a range of appropriate utensils, tools and equipment with some accuracy related to their product
- Select from and use finishing techniques suitable for the product they are creating

Evaluating

- Investigate a range of 3-D textile products, ingredients and lever and linkage products relevant to their project
- Test their product against the original design criteria and with the intended user
- Evaluate the ongoing work and the final product with reference to the design criteria and the views of others

Technical vocabulary focus

user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing

Year 4

Designing

- Generate and clarify ideas through discussion to develop design criteria. Informing the design of products that are fit for purpose, aimed at particular individuals or groups
- Use annotated sketches and appropriate information and communication technology to develop and communicate ideas
- Generate, develop, model and communicate realistic ideas through discussion, annotated sketches and, as appropriate, cross-sectional and exploded diagrams

Making

- Order the main stages of making
- Select and use appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy related to their products
- Explain their choice of materials according to functional properties and aesthetic qualities
- Select from and use materials and components, including ingredients, construction and electrical components according to their function and properties

Evaluating

- Investigate and evaluate a range of products including the ingredients, materials, components and techniques that are used
- Test and evaluate their own products against design criteria and the intended user and purpose
- Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work

Technical vocabulary focus

evaluating, design brief, design criteria, innovative, prototype, model, investigate, user, purpose, function, planning, annotated sketch, sensory evaluations

Year 5

Designing

- Generate innovative ideas through research including surveys, interviews, questionnaires and discussion with peers to develop a design brief and criteria for design specification
- Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification
- Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views, and, where appropriate, computer-aided design

Making

- Produce detailed lists of equipment and fabrics relevant to their tasks
- Write a step-by-step plan, including a list of resources required
- Select from and use, a range of appropriate utensils, tools and equipment accurately to measure and combine appropriate ingredients, materials and resources

Evaluating

- Investigate and analyse products linked to their final product
- Compare the final product to the original design specification and record the evaluations
- Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose
- Consider the views of others to improve their work

Technical vocabulary focus

design decisions, functionality, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype

Year 6

Designing

- Use research using surveys, interviews, questionnaires and web-based resources to develop a design specification for a range of functional products
- Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost
- Generate and develop innovative ideas and share and clarify these through discussion
- Communicate ideas through annotated sketches, pictorial representations of electrical circuits or circuit diagrams

Making

- Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components
- Competently select from and use appropriate tools to accurately measure, mark, cut and assemble materials, and securely connect electrical components to produce reliable, functional products
- Use finishing and decorative techniques suitable for the product they are designing and making

Evaluating

- Continually evaluate and modify the working features of the product to match the initial design specification
- Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests
- Test the system to demonstrate its effectiveness for the intended user and purpose

Technical vocabulary focus

design decisions, functionality, innovative, design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype

