

Design Technology- Design Progression

Reception:

- Work in contexts such as story based or wider environment.
- Explain what they are making and which materials they are using.
- Use the language of designing and making, e.g. words such as 'join', 'build' and 'shape' as well as evaluative and comparative language - 'longer', 'shorter', 'lighter', 'heavier' and 'stronger'.
- Select materials from a limited range that will meet a simple design criteria e.g. shiny.
- Select and name the tools needed to work the materials e.g. scissors for paper.
- Explore ideas by rearranging materials.
- Describe simple models or drawings of ideas and intentions.
- Discuss their work as it progresses.

Year 1:

Context, uses and purpose:

- Look at a product and understand what it is.
- Look at a product and understand who it is for.
- Look at a product and discuss how it works.

Ideas:

Recap - Explain what they are making and which materials they are using.

Use the language of designing and making, e.g. words such as 'join', 'build' and 'shape' as well as evaluative and comparative language - 'longer', 'shorter', 'lighter', 'heavier' and 'stronger'.

Select materials from a limited range that will meet a simple design criteria e.g. shiny.

Select and name the tools needed to work the materials e.g. scissors for paper.

- Generate ideas through own experiences - home, school, garden, local community, industry and wider environment.
- Discuss materials.
- Communicate ideas through talking and drawing.
- Model ideas through use of IT (paint, programmable toys, 2simple, word)
- Select an audience for their design and make.
- Discuss basic steps for design and making.

- Use a simple given design criteria.

Year 2:

Context, uses and purpose:

Recap - Look at a product and understand what it is.

Look at a product and understand who it is used for.

Look at a product and understand how it works.

- Identify where you might find a product
- Identify the materials used to make a product.
- Express opinions on a product.
- Explain why a product is suitable for a particular user.
- Explain who their product will be used for.
- Generate ideas using other people's experiences and existing products.

Ideas:

Recap - Generating ideas through their own experiences.

Create basic steps for designing and making a product.

Communicate ideas through talking and drawing.

- Identify a purpose for their design.
- Identify a simple design criteria.
- Communicate ideas through observations and labelled drawings.
- Model ideas by exploring materials, components and construction kits and by making templates and mock-ups.
- Chose appropriate materials to use based on properties.
- Select appropriate techniques explaining: First... Next... Last...

Year 3:

Context, uses and purpose:

Recap - Look at a product and understand what it is, who it is used for, how it works and where you might find the product.

Identify the materials the product has been made from.

Explain who their product will be used for.

- Identify the maker of a product.
- Identify when a product was made and its purpose.
- Research facts about around inventors or designers linked to the product.
- Understand and gather information about what a particular group of people want from a product.
- Investigate similar products to their ideas.

Ideas:

Recap - Identify a purpose for their design.

Chose appropriate materials to use based on properties.

- Generate and describe ideas for a product the purpose of it and how it will work.
- Develop their own design criteria and use these to inform their ideas.
- Draw/sketch products to help analyse how they are made.
- Think ahead about the order of their work and decide upon tools and materials.
- Plan a sequence of actions to make their product.
- When planning explain their choice of materials and components including function and aesthetics.

Year 4:

Context, uses and purpose:

Recap - Identify the maker of a product.

Identify when a product was made and its purpose.

Evaluate the product based on design and use.

Research facts about around inventors or designers linked to the product.

Understand and gather information about what a particular group of people want from a product.

Investigate similar products to their ideas.

- Develop their own simple design criteria and use these to inform their ideas.
- Start to consider the purposes for which they are designing- link with Mathematics and Science.
- Learn about inventors, designers, engineers, chefs and manufacturers who have developed innovative products.

Ideas:

- Generate ideas considering the purposes for which they are designing.
- Make labelled drawings from different views showing specific features.
- Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail.
- Evaluate products and identify criteria that can be used for their own designs.
- When planning explain their choice of materials and components according to function and aesthetic.

Year 5:

Context, uses and purpose:

Recap - Gather information about the needs and wants of particular individuals and groups.

Develop their own design criteria and use these to inform their ideas.

Identify the maker of a product.

Identify when a product was made and its purpose.

Evaluate the product based on design and use.

- Identify how environmentally friendly the materials are.
- Evaluate the product appearance.
- Identify the cost to make the product.
- Identify preferences of particular individuals and groups.
- Carry out research through use of questionnaires or surveys.
- Develop a simple design specification to guide their thinking.

Ideas:

- Generate ideas through brainstorming and identify a purpose for their product.
- Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail.
- Use results of investigations, information sources, including ICT when developing design idea.
- With growing confidence apply a range of finishing techniques, including those from art and design.
- Draw up a specification for their design- link with Mathematics and Science.

Year 6:

Context, uses and purpose:

Recap - Identify how environmentally friendly the materials are.

Identify the cost to make the product.

- Use research to inform the design of innovative, functional, appealing products that are fit for purpose.
- Develop a simple design specification to inform the design of innovative, functional, appealing products that are fit for purpose.
- Know how much products cost to make.
- Know how sustainable and innovative they are.
- Know the impact products have beyond their intended purpose.

Ideas:

- Carry out discussions, create annotated sketches, cross-sectional and exploded diagrams and/or prototypes.
- Communicate their ideas through detailed labelled drawings.

- Plan the order of their work, choosing appropriate materials, tools and techniques.
- Draw up a specification for their design- link with Mathematics and Science.
- Suggest alternative methods of making if the first attempts fail.
- Identify the strengths and areas for development in their ideas and products.