

Knowledge and Skills

Our progressive objectives show what pupils should know and be able to do in each aspect of Design and Technology by the end of each group.

Year Group	Design
EYFS	I can represent and communicate my ideas through design.
1	I am beginning to draw upon my own experience to help generate ideas.
	I am beginning to understand the development of existing products; what they are for, how they work and the materials used.
	I am beginning to design products using pictures and words based on a design criterion.
	I can use pictures words and models to convey what I want to design.
	I can suggest ideas and explain what the product is going to do.
	I am beginning to understand how to identify a target group for what I intend to design and make based upon a design criteria
	I can make prototypes of my design.
2	I can use simple drawings and labels to record my ideas.
	I can design products that have a clear purpose based on my own design criteria.
	I can develop my ideas through discussion, observation, drawing and modelling.
	I can identify a purpose for what I intend to design and make.
	I can identify a target group for my product.
	I can make prototypes of my design and templates using ICT or card.
3	I can research similar products to develop my own design ideas.
	I can develop my designs through discussion and annotated sketches to add detail.
	I can carefully consider the target audience when creating my design.
	I am beginning to list the order of construction.
	I can help to develop a criterion for a successful product.
	I can show an understanding of how products have been designed and made (considering materials and construction techniques).
	I am aware of great inventors, designers, engineers, chefs and manufactures and those who have developed ground breaking products.
	I am starting to understand whether products can be recycled or reused.
	I can explain my design choices.
4	I generate and develop ideas using exploded diagrams and prototypes.
	I use different ways to creatively record and present my designs to show they are fit for purpose.
	I can make mathematical and scientific links with my designs.
	I can create clear production planning (materials, equipment and processes).
	I can identify strengths and area for improvement in my products.
	I am can name great inventors, designers, engineers, chefs and manufactures and those who have developed ground breaking products.
	I can explain my design choices.
	I can generate and develop ideas using pattern pieces and computer aided design.
5	I can develop my ideas using annotated drawings, sketches, cross-sectional and exploded diagrams.
	I can use research and develop my design criterion to create innovative functional, appealing fit for purpose products.
	I can create a specification for my products linked to mathematics and science.
	I can select appropriate materials, tools and techniques.

	I am starting to develop an understanding of costings, sustainability and environmental impact.
	I can justify my designs.
6	I can generate my own ideas using a variety of design techniques.
	I can justify my designs referring to specific design criterion.
	I can research and develop design criterion aimed at specific groups.
	I can convey my ideas using annotated drawings, sketches, cross-sectional and exploded diagrams, justifying where appropriate.
	I can accurately apply a range of finishing techniques.
	I can create a specification for my products linked to mathematics and science, justifying my decisions.
	I can create a clear plan for production.

Year Group	Make
EYFS	I can safely use tools and materials
	I can choose materials which would be good to make things with.
1	I can choose appropriate resources and tools to make a product.
	I can use a range of materials to make a product, including construction materials, textiles and ingredients.
2	I can select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
	I use a range of materials to make a product, including construction materials, textiles and ingredients and explain why the materials have been selected.
3	I can choose a material for both its suitability and its appearance and explain why it has been selected.
	I can think ahead about the order of my work, select tools needed for a given task and give reasons for my choices.
4	I can choose and use appropriate tools from a wider range to perform practical tasks.
	I can choose suitable materials from a wider range and explain its suitability.
5	I use a range of appropriate tools competently.
	I can join and combine a range of materials competently.
6	I select and use specialist tools and equipment to perform practical tasks accurately.
	I can select from and use a wider range of materials and components according to their functional qualities and aesthetic qualities.

Year Group	Evaluation of my work
EYFS	I can say what I like or don't like about what I have made
1	I am beginning to explore and evaluate a range of existing products by evaluating the product against the purpose
	I can evaluate my designs and products by saying how well they do the job they were designed for.
2	I can explore and evaluate a range of existing products by looking at function and materials.
	I can evaluate my ideas and products against set design criteria.
3	I can investigate and analyse an existing product by identifying whether it is fit for purpose and how easy it is to use.
	I can prove that my design meets some set criteria and evaluate how well it works.
4	I can explain why certain materials were used to make existing products
	I can evaluate and suggest improvements for my design.
5	I can evaluate appearance and function against original criteria.

	I am able to justify decisions made during the design process.
6	I can critically evaluate the quality of the design, manufacture and fitness for purpose by comparing existing products
	I can evaluate my ideas and products against my own design criteria and consider the views of others to improve my work.

Year Group	Technical Knowledge
EYFS	I can use some appropriate words to talk about my ideas or products
1	I can explore and use simple mechanisms in my products.
2	I can build structures, exploring how they can be made stronger, stiffer and more stable.
3	I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures.
	I am able to understand and use mechanical systems in my products.
4	I can understand and use electrical systems in my products.
5	I am able to understand and use mechanical systems in my products
6	I am able control and model using an ICT control programme.