

Textiles
Electricals, Electronics and Computing
Construction
Mechanics
Food
Materials

Materials Curriculum Progression



Early Years Foundation Stage

Expressive Arts and Design: Exploring Media and Materials: They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Expressive Arts and Design: Being Imaginative: Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.

Primary Curriculum

	Term 1	Term 2	Term 3
1	Food Cut, peel or grate; measure or weigh & assemble or cook	Mechanics Levers, wheels and winding	Textiles Seam allowance, joining & selecting appropriate techniques to decorate materials
2	Materials Cutting and shaping ; measure and mark (cm) & joining techniques	Construction Drilling, screwing, gluing and nailing	Electricals, Electronics and Computing EE- Diagnose faults in battery operated devices C- Model designs using software
3	Textiles Shape using templates; running stitch & colour and decorate textiles	Food Prepare, measure to the nearest gram; follow a recipe & assemble or cook (controlling temp)	Mechanics Scientific knowledge of the transference of forces
4	Construction Choosing suitable techniques to construct and strengthen	Electricals, Electronics and Computing EE- Create series and parallel circuits C- Control and monitor models using software	Materials Cut with precision and refine; qualities of materials
5	Mechanics Convert rotary motion to linear & innovative combinations of electronics and mechanics in product design	Textiles Create objects that employ a seam allowance; use a combination of stitching techniques & create visual and tactile effects	Food Storage and handling; measure accurately; ratio; baking and cooking techniques & create and refine recipes
6	Electricals, Electronics and Computing EE- create circuits	Materials Accurate cutting; measure and mark (mm), cuts within the perimeter of the material, selecting joining techniques	Construction Develop a range of practical skills to create products

Materials Curriculum Progression



Year Two

Materials	Construction	Electricals, Electronics and Computing
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Coverage

<p>Materials</p> <ul style="list-style-type: none">• Cut materials safely using tools provided.• Measure and mark out to the nearest centimetre.• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).• Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). <p>To design, make, evaluate and improve</p> <ul style="list-style-type: none">• Design products that have a clear purpose and an intended user.• Make products, refining the design as work progresses.• Use software to design. <p>To take inspiration from design throughout history</p> <ul style="list-style-type: none">• Explore objects and designs to identify likes and dislikes of the designs.• Suggest improvements to existing designs.• Explore how products have been created.

Concept Mapping

Planning

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Overarching Question

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Materials Curriculum Progression



Year Four

Construction	Electricals, Electronics and Computing	Materials
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Coverage

<p>Materials</p> <ul style="list-style-type: none"> • Cut materials accurately and safely by selecting appropriate tools. • Measure and mark out to the nearest millimetre. • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). • Select appropriate joining techniques. <p>To design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, continually evaluating the product design. • Use software to design and represent product designs. <p>To take inspiration from design throughout history</p> <ul style="list-style-type: none"> • Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. • Improve upon existing designs, giving reasons for choices. • Disassemble products to understand how they work.

Concept Mapping

Planning

Overarching Question

Materials Curriculum Progression



Year Six

Electricals, Electronics and Computing	Materials	Construction
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Coverage

<p>Materials</p> <ul style="list-style-type: none"> • Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). • Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper). <p>To design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Design with the user in mind, motivated by the service a product will offer (rather than simply for profit). • Make products through stages of prototypes, making continual refinements. • Ensure products have a high quality finish, using art skills where appropriate. • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs. <p>To take inspiration from design throughout history</p> <ul style="list-style-type: none"> • Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. • Create innovative designs that improve upon existing products. • Evaluate the design of products so as to suggest improvements to the user experience.

Concept Mapping

Planning

Overarching Question