

Textiles
Electricals, Electronics and Computing
Construction
Mechanics
Food
Materials

E, E & C 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

E, E & C Curriculum Progression



Year Two

Materials	Construction	Electricals, Electronics and Computing
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Coverage

<p>Electricals and Electronics</p> <ul style="list-style-type: none">• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage). <p>Computing</p> <ul style="list-style-type: none">• Model designs using software. <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.
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Concept Mapping

Planning

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Overarching Question

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E, E & C Curriculum Progression



Year Four

Construction	Electricals, Electronics and Computing	Materials
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Coverage

<p>Electrical and Electronics</p> <ul style="list-style-type: none">• Create series and parallel circuits <p>Computing</p> <ul style="list-style-type: none">• Control and monitor models using software designed for this purpose. <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.
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Overarching Question

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Concept Mapping

Planning

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E, E & C Curriculum Progression



Year Six

Electricals, Electronics and Computing	Materials	Construction
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Coverage

<p>Electricals and Electronics</p> <ul style="list-style-type: none"> • Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips). <p>Computing</p> <ul style="list-style-type: none"> • Write code to control and monitor models or products. <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.
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Concept Mapping

Planning

Overarching Question