



St Joseph's Design & Technology Progression Map



| | EYFS | KS1 | Lower KS2 | Upper KS2 |
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| | Nursery and Reception | Year 1 and Year 2 | Year 3 and Year 4 | Year 5 and Year 6 |
| Design Process | <ul style="list-style-type: none"> • Discuss what a product does or needs to do. • Explore the qualities of a range of materials. • Make to create an outcome. • Explain why they chose their materials. • Explain what they have made. | <ul style="list-style-type: none"> • Work from a basic brief to generate ideas and design a simple product fit for purpose and audience. • Explore suitability of common materials before making a choice. • Show awareness of some products similar to their design. • Develop ideas, communicating and recording them in a suitable way (e.g. design book, design page, IT, mind map) • Make a simple mock-up. • Make a final product. • Evaluate their final product – what went well? Did they follow the brief? | <ul style="list-style-type: none"> • Work from a brief to design an appealing, functional product fit for purpose and audience. • Explore some possible materials, conducting a simple test to ensure suitability before making a choice. • Show awareness of products similar to their own. • Develop an idea, communicating and recording it in a suitable way (e.g., annotated design page, diagrams, IT) • Perform basic tests, make simple prototypes/pattern pieces as appropriate. • Create a final idea and translate this into a final product which fits the brief. • Evaluate their final product – what went well? Did they follow the brief? • How could they improve their design | <ul style="list-style-type: none"> • Work from a brief with a simple constraint (e.g. audience / purpose) to design an appealing, functional product. • Research a range of materials, conducting tests as appropriate before selecting the best choice. • Research products similar and different to their own to inform their own design. • Develop a design idea, communicating and recording it via a plan and a labelled diagram. • Test ideas using prototypes/ creating pattern pieces and where relevant computer aided design. • Develop and make a final product, based on testing, which meets the brief criteria. • Evaluate their final product, including discussion amongst peers to assess their product against the brief and consider improvements. |

Resistant Materials

Electronics linked to science objectives

- Begin to cut and tear materials.
- Stick and glue materials together.
- Use junk objects to create their own designs.
- Begin to consider how they join materials together.

- Follow basic procedures for safety.
- Cut materials safely using scissors.
- Tear, fold and curl materials.
- Join using gluing and taping.
- Begin to use a simple hinge.
- Select materials and tools based on their properties.
- Create products based on a design.
- Explore and use simple mechanisms [e.g., levers, sliders, wheels and axles], in their products.
- Build structures, exploring how they can be made stronger, stiffer and more stable.

- Follow procedures for safety.
- Cut, tear and shape materials with increasing accuracy.
- Use a wider range of joining methods (e.g., fasteners, tabs, flange)
- Choose appropriate materials and tools for a product based on them functional properties and aesthetics.
- Strengthen, stiffen and reinforce a product using suitable materials.
- Make mechanical /moving elements (e.g., pulleys, levers and linkages)
- Choose appropriate materials by testing their properties using a prototype.
- Incorporate a simple electrical system into their product.*

- Follow procedures for safety with a wider range of tools and processes.
- Cut and shape materials based on their design with increasing accuracy.
- Choose appropriate tools and methods to cut and form a wider range of materials.
- Choose appropriate materials by testing their properties using prototypes, justifying their choices.
- Make mechanical /moving elements (e.g., gears, cams and pneumatics)
- Use a wider range of joining methods (e.g., inserts, wrap, gusset, notch)
- Incorporate a more complex electrical system into their designs (e.g., more than one component / adding a switch).
- Use computing to program, monitor and control their products.*

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| <p style="text-align: center;">Textiles</p> | <ul style="list-style-type: none"> • Stick and decorate textiles with support. • Thread beads onto a string. • Begin to cut fabric using scissors. | <ul style="list-style-type: none"> • Cut textiles using scissors and a template. • Decorate textiles using crayons, paint or sticking. • Join textiles using glue. • Use a running stitch to join textiles using pre-prepared holes. • Create simple weaving using paper or large strips of fabric. | <ul style="list-style-type: none"> • Cut textiles with scissors safely. • Thread a needle and tie a knot. (e.g., wool/embroidery needle) • Use a running stitch to join textiles. • Decorate textiles using stamping, printing and simple embellishment. • Weave using a cardboard loom. | <ul style="list-style-type: none"> • Use seam allowance and back stitch to join textiles to create a simple product (e.g., A cushion or soft toy). • Use a pattern/template to mark and cut fabric into a specific shape • Use cross stitch, running stitch or filling stitch. • Use applique • Thread a needle and tie a knot, including finishing a thread and starting a new one within a project. • Choose appropriate materials for a textile product based on its use. • Weave using a variety of materials. • Sew a button or bead onto a project. |
| <p style="text-align: center;">Food & Nutrition</p> <p style="text-align: center;"><small>Statement linked to science</small></p> | <ul style="list-style-type: none"> • Mix pre-prepared ingredients with the support of an adult, safely and hygienically. • Use a blunt knife to spread butter or jam (or alternative) on a cracker or bread. • Understand that fruit and vegetables grow, and which ones are grown in the UK. | <ul style="list-style-type: none"> • Cut soft foods safely and hygienically using an appropriate tool. • Measure using measuring cups and spoons. • Assemble ingredients to make a simple recipe. • Discuss what a healthy and varied diet should look like, naming and sorting using the five main groups. * • Know where a range of fruits and vegetables come from. * | <ul style="list-style-type: none"> • Cut a range of foods safely and hygienically with an appropriate tool. • Measure ingredients using scales or jugs. • Follow recipes, starting to use techniques such as peeling, chopping, slicing, mixing, spreading, baking or kneading. • Cook using a pan or oven safely (with supervision and support). • Know where a wider range of foods come from. • Discuss the importance of a range of varied and nutritious foods. * • Discuss the importance of a balanced diet to provide energy for a healthy active lifestyle. * | <ul style="list-style-type: none"> • Discuss why we need to store and handle food hygienically (micro-organisms).* • Measure ingredients with a degree of accuracy using an appropriate measuring device. • Scale recipes up or down accordingly. • Design their own simple savoury recipes and test them. • Use a range of baking and cooking techniques with increasing confidence (e.g. boiling, frying, baking, grilling, steaming, roasting, microwaving) • Begin to explain why a recipe or meal is healthy or not, giving reasons based on their understanding.* |

Products & Designers

(Evaluation & Analysis)

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| <ul style="list-style-type: none">• Enjoy looking at different products and designs.• Can say whether they like a product/design or not.• Identify materials used to make a product (e.g. plastic, metal, wood) | <ul style="list-style-type: none">• Enjoy looking at different products and designs.• Can say whether they like a product/design or not.• Make a link between their work and a product.• Start to ask their own questions about a product or design. | <ul style="list-style-type: none">• Continue to develop their knowledge of key designers and products.• Can express an opinion about a product, giving simple reasons why.• Make simple comparisons between designers and products.• Make links between their work and the work of a designer/ maker.• Discuss when and where a product or design was created.• Begin to make links between key events and individuals in design and technology that have helped shape the world.• Discuss: what products are; who they are for; how they are made and what materials are used. | <ul style="list-style-type: none">• Can discuss a range of key designers and products.• Express an opinion about a product, justifying reasons.• Make links between their work and the work of others, noting specific influences and techniques.• Explore: how well products have been designed and made; why materials have been chosen; what methods of construction have been used; how well products achieve their purpose |
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