

Progression Overview

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Designing 	-Explore and develop their own ideas through drawing, mark-making, role play and model making. -Talk about what they want to make and plan how to do it using simple materials. -Select tools and materials with intention based on their purpose (e.g. choosing tape to join, or fabric for clothing in role play). -Begin to communicate their ideas verbally or through drawings before making.	-Explain how to adapt mechanisms, using bridges or guides to control the movement. -Design a moving story book for a given audience. -Create clearly labelled drawings that illustrate movement. -Design a vehicle that includes wheels, axles and axle holders which will allow the wheels to move. -Learn the importance of a clear design criteria. -Include individual preferences and requirements in a design.	-Design a pouch. -Create a design criteria for a moving monster as a class. -Design a moving monster for a specific audience in accordance with a design criteria. -Design three wrap ideas based on a food combination which work well together.	-Design and make a template from an existing cushion and apply individual design criteria. -Follow a design criteria to create a cushion. -Select and cut fabrics with ease using fabric scissors. -Thread needs and tie knots with greater independence. -Sew cross stitch to join fabric. -Decorate fabric using applique. -Complete design ideas with stuffing and sewing the edges. -Design a toy that uses a pneumatic system. -Develop design criteria from a design brief. -Generate ideas using thumbnail sketches and exploded diagrams.	-Design a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas. -Evaluate and compare a range of products. -Design a biscuit within a given budget. -Identify a target audience and conduct market research. -Write design criteria for a programmed timer (micro:bit). -Apply the results of research to further inform design criteria. -Develop a prototype case for a mindful moment timer. -Use and manipulate shapes and clipart by using computer-aided design (CAD) to produce a logo.	-Design a stuffed toy considering the main component shapes required and creating an appropriate template. -Consider the proportions of individual components. -Design a stable structure that is able to support weight. -Create a frame structure with focus on triangulation. -Design a pop-up book which uses a mixture of structures and mechanisms. -Name each mechanism, input and output accurately. -Storyboard ideas for a book.	-Design a waistcoat in accordance to a specification linked to set of design criteria. -Annotate designs, to explain their decisions. -Write a recipe, explaining the key steps, method and ingredients. -Include facts and drawings from research undertaken. -Design a steady hand game, identifying and naming the components required. -Draw a design from three different perspectives. -Generate ideas through sketching and discussion. -Model ideas through prototypes. -Understand the purpose of products (toys) including what is meant by 'for for purpose' and 'form over function'.
	- Use a range of tools safely and with increasing control (e.g.	Mechanisms -Follow a design to create moving models	Sewing -Select and cut fabrics for sewing.	Sewing -Follow a design criteria to create a cushion.	Electrical Systems -Make a torch with a working electrical circuit	Sewing -Create a 3 D stuffed toy from a 2D design.	Sewing -Use a template when cutting fabric

Making



scissors, glue spreaders, hole punch).
-Join materials in different ways (e.g. taping, gluing, folding, threading).
-Handle construction materials and malleable resources (like playdough or junk modelling) to shape, assemble, and build models.
- Explore using textures, shapes, and colours to represent ideas.
- Combine materials to achieve intended outcomes (e.g. making a bridge that holds a toy or a box that opens and closes).

that use levers and sliders.
-Adapt mechanisms when
-They do not work as they should
-To fit their vehicle design
-To improve how they work after testing their vehicle.
Structures
-Make stable structures from card.
-Follow instructions to cut and assemble the supporting structure of a windmill.
-Make functioning turbines and axles which are assembled into a main supporting structure.
-Find the middle of an object.
-Puncture holes.
-Add weight to structures.
-Create supporting structures.
-Cut evenly and carefully.

-Decorate a pouch using fabric glue or running stitch.
-Thread a needle
-Sew a running stitch, with evenly spaced, neat, even stitches to join fabric.
-Neatly pin and cut fabric using a template.
Mechanisms
-Make linkages using card for levers and split pins for pivots.
-Experiment with linkages adjusting the widths, lengths and thicknesses of card used.
Food
-Cut and assemble components neatly.
-Chop foods safely to make a wrap.
-Grate food to make a wrap.
-Spread soft foods to make a wrap
-Identify the five food groups

-Select and cut fabrics with ease using fabric scissors.
-Thread needs and tie knots with greater independence.
-Sew cross stitch to join fabric.
-Decorate fabric using applique.
-Complete design ideas with stuffing and sewing the edges.
Mechanisms
-Create a pneumatic system to create a desired motion.
-Build a secure housing for a pneumatic system.
-Use syringes and balloons to create different types of pneumatic systems to make a functional and appealing pneumatic toy.
Structures
-Manipulate materials to create different effects by cutting, creasing, folding and weaving.
-Select materials due to their functional and aesthetic characteristics.

and switch.
-Use appropriate materials to cut and attach materials.
-Assemble a torch according to the design and success criteria.
Food
-Follow a baking recipe.
-Understand safety and hygiene rules.
-Adapt a recipe to meet the requirements of a target audience.
-Use a cuboid net to create packaging.
Digital World
-Program a micro:bit in the Microsoft micro:bit editor, to time a set number of seconds/minutes upon button press.
-Test a program for bugs (errors in the code).
-Find and fix bugs (debug) in code.

-Measure , mark and cut fabric accurately and independently.
-Create strong and secure blanket stitches when joining fabric ensuring the spaces between stitches are even and regular.
-Thread needles independently.
-Use applique to attach pieces of fabric decoration.
Structures
-Make a range of different shaped beam bridges.
-Use triangles to create truss bridges that span a given distance and support a load.
-Explain why selecting appropriate materials is an important part of the design process.
-Build a wooden bridge structure.
-Independently measure and mark wood accurately.
-Select appropriate tools and equipment for particular tasks.
-Use the correct techniques to saw safely.
-Identify where a structure needs reinforcement and use card corners for support.
-Understand basic wood functional properties.
Mechanisms
-Follow a design brief to make a pop-up book, neatly with a focus on

to ensure they achieve the correct shape.
-Use pins effectively to secure a template to fabric without creases or bulges.
-Mark and cut fabric accurately, in accordance with their design.
-Sew a strong running stitch, making small, neat stitches and following the edge.
-Tie strong knots.
-Decorate a waistcoat, attaching features (such as appliqué) using thread.
-Finish the waistcoat with a secure fastening (such as buttons).
-Learn different decorative stitches.
-Sew accurately with evenly spaced, neat stitches.
Food
-Follow a recipe, including using the correct quantities of each ingredient.
-Adapt a recipe based on research.
-Work to a given timescale.
-Work safely and hygienically with independence.
Electrical Systems
-Construct a stable base for a game.
-Accurately cut, fold and assemble a net.



						accuracy. -Make mechanisms and/or structures using sliders, pivots and folds to produce movement. -Use layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.	-Decorate the base of the game to a high-quality finish. -Make and test a circuit. -Incorporate a circuit into a base.
Evaluating 	-Talk about what they have made and what they like or would change. -Begin to compare their creations with their original ideas or plans. -Respond to adult questioning about their work, reflecting on the tools and materials used. -Explore how things work and suggest ways to improve or adapt them (e.g. "It needs more tape to stay up").	-Test a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed. -Review the success of a product by testing it with its intended audience. -Test mechanisms, identifying what stops wheels from turning, knowing that a wheel needs an axle in order to move. -Evaluate a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't. -Suggest points for improvements.	-Evaluate the quality of the stitching on others' work. -Discuss as a class, the success of their stitching against the success criteria. -Identify aspects of their peers' work that they particularly like and why. -Evaluate own designs against design criteria. -Use peer feedback to modify a final design. Taste and evaluate different food combinations. Describe appearance, smell and taste. Describe the information that should be included on a label. Evaluate food by giving it a score.	-Evaluate an end product and think of other ways in which to create similar items. -Use the views of others to improve designs. -Test and modify the outcome, suggesting improvements.	-Test and evaluate the success of a final product. -Evaluate a recipe, considering: taste, smell, texture and appearance. -Describe the impact of the budget on the selection of ingredients. -Evaluate and compare a range of food products. -Suggest modifications to a recipe (e.g. This biscuit has too many raisins, and it is falling apart, so next time I will use less raisins). -Document and evaluate a project. -Gather feedback to make suggested improvements to a product. -Evaluate a program against points on a design criteria and amend them to include any changes made.	-Test and evaluate an end product and give points for further improvement. -Adapt and improve own bridge structure by identifying points of weakness and reinforcing them as necessary. -Suggest points for improvements for own bridges and those designed by others. -Evaluate the work of others and receive feedback on own work. -Suggest points for improvement.	-Reflecting on their work continually throughout the design, make and evaluate process. -Evaluate a recipe, considering: taste, smell, texture and origin of the food group. -Taste test and score final products. -Suggest and write up points of improvements in productions. -Evaluate health and safety in production to minimise cross contamination. -Test their own and others' finished games, identifying what went well and making suggestions for improvement. -Gather images and information about existing children's toys. -Analyse a selection of existing children's toys.



Examples of Progression in Design Technology at Our Lady of the Angels

Sewing

In the Early Years children begin their progression in sewing through developing their fine motor skills and exploring joining materials through activities like threading and using tools such as scissors and glue spreaders with increasing control. By Year 2, pupils begin to use fabric more intentionally, learning to select and cut materials, thread a needle, and sew using a simple running stitch. They apply these skills to create basic textile items such as a decorated pouch. In Year 3, children build on this by following a design brief to create a cushion, introducing more complex stitches like cross stitch and decorative techniques such as appliqué. Their work becomes more independent and precise as they learn to stuff and neatly finish fabric products. By Year 5, pupils can independently design and construct a 3D textile product, such as a toy, using accurate measuring, marking, and advanced stitches like blanket stitch. Finally, in Year 6, children demonstrate a high level of accuracy and control, using templates and pins effectively, sewing a range of decorative and functional stitches, and assembling detailed textile items like waistcoats with secure fastenings and embellishments. This clear progression ensures pupils leave primary school with confidence in a range of sewing and textile skills, ready for further challenges in secondary Design and Technology.

Structures

In the Early Years children explore constructing with a variety of materials such as playdough, card, and junk modelling. They learn to shape, assemble, and join materials using simple techniques like folding, taping, and gluing, while developing control with basic tools such as scissors and glue spreaders. In Year 1, pupils build on this foundation by creating stable structures from card, learning to follow instructions to assemble simple mechanical elements like turbines and axles, and beginning to understand balance, support, and weight. By Year 3, children manipulate materials with greater precision through cutting, creasing, and folding, and begin to select materials based on their functional and visual properties. In Year 5, pupils advance to creating more complex structures such as beam and truss bridges. They develop technical skills in measuring, marking, and sawing wood accurately and safely, and understand how reinforcement techniques like card corners or triangular supports increase strength and stability. This structured progression equips pupils with the practical and evaluative skills needed to design and build increasingly sophisticated structures with purpose and creativity.

