



Holy Family Design Technology Progression of Skills

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Developing, Planning & Communication Ideas	I can talk about what I want to make. I can share my ideas with my friends or grown-ups. I can say how I feel about what I've made.	I can talk about my ideas and what I want to make. I can tell others what I'm going to make and why. I can follow simple instructions to make something.	I can explore and discuss different ideas for my design. I can explain what I am going to do and share my ideas with others. I can identify a simple purpose for what I am designing. I can draw and label simple designs.	I can generate ideas based on my own experiences and those of others. I can develop my ideas through discussion and drawing. I can identify a target user and purpose for my design. I can create simple drawings with labels to show my design ideas.	I can use research to help me develop my ideas. I can generate multiple ideas and consider their purpose. I can make simple models to test my ideas. I can plan the order of my work before starting. I can make detailed drawings and add notes to explain key features.	I can generate ideas through mind mapping and identify a purpose for my product. I can draw labelled diagrams showing my design from different angles. I can explore and develop aspects of my design by making models. I can plan my work carefully, choosing materials, tools, and techniques.	I can research and analyse existing products to inform my own designs. I can generate and refine my ideas through discussion and sketches. I can create a specification for my design based on user needs. I can use digital tools, such as CAD, to present my design ideas.	I can generate innovative ideas by considering purpose, audience, and materials. I can communicate my design through detailed, annotated drawings. I can use research and testing to refine my ideas before making. I can create detailed plans, considering materials, tools, and construction methods.



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Working with tools, equipment, materials and components to make products	I can play with different materials, like playdough or blocks, and make things. I can use simple tools, like safety scissors, with help. I can try to put different things together to make something new	I can use tools like scissors or glue to make things. I can mix different materials (like paper and paint) to create something new. I can help clean up after using tools and materials. I can select the right tools and materials to match my own ideas.	I can join different materials together to make a model. I can use simple tools safely with guidance. I can explore different ways to shape and combine materials	I can select the best materials for my project. I can use simple tools independently and safely. I can follow my design to make a product. I can create simple structures and mechanisms	I can use a wider range of tools with increasing accuracy. I can measure, mark, and cut materials accurately. I can assemble, join, and combine materials in different ways. I can begin to use reinforcement techniques to strengthen my structures.	I can use tools accurately and safely to cut and shape materials. I can choose and use materials effectively for different purposes. I can create electrical circuits and mechanisms to enhance my designs. I can hide and integrate components into my products.	I can select appropriate tools and techniques for construction. I can measure, cut, and join materials with precision. I can use more advanced techniques, such as sewing, wiring, and structural reinforcement. I can build complex structures, ensuring they are stable and functional.	I can accurately use a wide range of tools and materials. I can combine materials and components in sophisticated ways. I can work to a high standard, ensuring precision and durability. I can integrate electrical and mechanical components effectively.
Evaluating processes and products	I can say what I like about what I've made. I can talk about what I want to try differently next time. I can listen to my friends and share ideas about our work.	I can say what worked well and what I like about what I made. I can talk about how I could make my creation better next time. I can listen to my friends' ideas and share my own.	I can talk about what I made and what I like about it. I can compare my product to my original design	I can discuss what worked well and what could be improved. I can listen to feedback and suggest simple improvements. I can test my product and see if it works as expected	I can evaluate my product against my design criteria. I can consider how well my product meets its purpose. I can discuss changes I would make to improve my work.	I can test my product and identify strengths and weaknesses. I can compare my product to similar existing products. I can suggest ways to improve my design and making process.	I can evaluate my product using detailed criteria. I can test my product in real-life conditions. I can reflect on feedback and suggest improvements.	I can critically evaluate my work against industry standards. I can suggest refinements and explain how they would improve the product. I can test and adapt my design based on real-world application.



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	Autumn	Spring	Summer
Nursery	- Explore the textures, movement, feel and look of different media and materials. - Respond to a range of media and materials developing an understanding that they manipulate and create effects with these. - Use different media and materials to express their own ideas. - Construct with a purpose in mind using a variety of resources. - Develop skills to use simple tools and techniques competently and appropriately - Select appropriate resources for a product and adapt their work where necessary PSE - Select and use activities and resources, with help when needed. PD - Use one-handed tools and equipment, for example making snips in paper with scissors.	PD - Use large-muscle movements to wave flags and streamers, paint and make marks. PSE - Choose the right resources to carry out their own plan. UW - Explore how things work. EAD - Make imaginative and complex small worlds with blocks and construction kits, such as a city with different buildings and a park.	EAD - Explore different materials freely, in order to develop their ideas about how to use them and what to make. - Develop their own ideas and then decide which materials to use to express them. - Create closed shapes with continuous lines, and begin to use these shapes to represent objects.
Reception	Reception Autumn topics – Magnificent Me and Celebrations I can express my ideas and feelings in different ways.	Reception Spring topics – Winter, celebrations, and growing I can share my ideas collaboratively in well-formed sentences (E.g. 'I am going to make a beanstalk for Jack to climb up. I am going to use the strong, green felt as the stem, and the tissue paper for the leaves.')	Reception Summer topics – Animals and All Around the World I can return to and build on my previous learning.



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	I can use my core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. I can use a variety of artistic effects to express my ideas and feelings. I can create my own colour monster using the correct tools for my design (e.g. scissors, tissue paper, glue, etc.) I can create with resources using my skills. I can use my fine motor skills to operate a range of tools including scissors, paintbrushes, glue spreaders, etc. I can draw, design and create my own home using the appropriate tools and materials.	I can progress towards a more fluent style of moving, with developing control and grace. I can make use of props and materials when role playing characters in narratives and stories (ELG). I can explain why I have chosen certain materials and media to use in my design (e.g. 'I have chosen the shiny black material because it is smooth like the bear's shiny wet nose.' I can refine my ideas and develop my ability to represent them. I can design my creations before building them (construction area when building, creative area when making/creating). I can select the appropriate tools and equipment for my designs and creations, and I can use my fine motor skills to use a range of tools competently, safely and confidently. I can join materials together in a variety of ways (e.g. split pins, glue tape, etc.)	I can safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (ELG). I can create for a purpose – e.g. creating a cage for the zoo animals, creating a boat for the snail and the whale to travel on, etc. I can compare my creation to others. I can explain what is different and the same using key vocabulary, and I can give reasons to my answers. (e.g. 'Mine is different because I have used lollipop sticks for the braches, but they have used paper straws.') I can design my own props and materials when role playing characters in narratives and stories. I can talk about my creations, explaining the processes I have used (ELG). I can use what I have learnt about media and materials in original ways, thinking about uses and purposes. I can handle equipment and tools effectively, including pencils for writing. I can evaluate my design and tell others what went well about my creation.
Year 1	Year 1 Autumn Homes I can explore different types of houses around the world and the shapes in them. I can use my observation skills to answer questions and solve riddles. I can learn about materials used to build houses and how architects make models	Year 1 Spring Moving Pictures I can find out what a sliding mechanism is and how it makes a simple moving picture. I can explore this mechanism by making different moving creature pictures. I can look at a moving picture with a lever and pivot mechanism and explain how it works. I can explore how it is made and learn how to hide the lever at the back. Then, I can make my own moving creature pictures using this mechanism.	Year 1 Summer Eat more fruit and vegetables I can discuss and make a list of as many fruits and vegetables as I can. I can pick my favourite and find out the most popular one in class, then present this data in a pictogram. I can look closely at different fruits and vegetables. I can use my senses to describe their features,



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	first. I can practise joining materials to make my own model house. I can explore the inside of a house and make model furniture. I can think about different materials and how they help or make building harder. I can understand design criteria and create a plan for my model house. I may also design a house for a 'client' with specific needs. Before building, I can review my plans, materials, and tools. I can check my design criteria and discuss how to make my house stable. I can share my model house and see how well it meets the design criteria. I can evaluate my work and suggest improvements.	I can learn how to make a moving picture using a wheel mechanism. I can discuss how it works before making my own moving creature picture using the resources provided. I can use what I have learned about moving mechanisms to design my own moving creature picture for an author creating a children's book. I can think about the mechanism I will use, the equipment I need, and the steps I will follow before making my moving picture. I can evaluate my moving creature picture by discussing it with a partner and the class. Then, I can continue my self-assessment in my independent activities.	including how they taste. I can also discuss safety and hygiene when handling food. I can think about food preparation and practise using different tools safely. I can use the correct language to talk about food preparation. I can explore different types of food and understand why eating more fruits and vegetables is important. I can design new recipes using only fruits and vegetables, making sure they are colourful, tasty, and healthy. I can recap and evaluate everything I have learned about fruits and vegetables. I can recreate my recipe designs, making sure they follow what I have learned.
Year 2	Year 2 Autumn Fire engines I can explore modern fire engines and their features. I can identify common vehicle features and those specific to fire engines. I can also compare a 17th-century fire engine to a modern one. I can explore how wheels, axles, and chassis work together to create the base of a fire engine. I can try different ways to attach the chassis to the axles.	Year 2 Spring Perfect Pizza I can discuss my favourite pizza and organize the information into a pictogram. I can think about healthy eating and sort my favourite pizza ingredients to complete a balanced plate. I can explore what pizza bases are made from and decide where they fit on a balanced diet plate. I can look at different bread-based products and choose which would make a good pizza base. I can explore different pizza toppings and sort them into food groups. I can think about balanced diets and decide which toppings make a healthy choice.	Year 2 Spring Puppets I can explore different types of puppets, their features, what they are made from, and what they are used for. I can choose my favourite puppet, draw it, and label its parts. I can explore different finger puppets. Using a template, I can work with fabric to create, make, and decorate my own finger puppet. I can learn different sewing techniques and practise them before making my puppet.



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	I can investigate how to create the body of a fire engine using materials like cardboard, lolly sticks, and other craft supplies. I can explore how to make features like ladders and fire hoses, choosing the best materials and tools for each part. I can design my own fire engine based on what I have learned. I can decide which materials and tools to use and record my design ideas with notes and diagrams. I can design either a modern or a 17th-century fire engine. I can follow my design to build a fire engine using different materials, tools, and techniques. I can evaluate my fire engine and those made by my classmates. I can think about what worked well, what could be improved, and what I would do differently next time.	I can design a healthy and balanced pizza, making sure I follow the pizza criteria. I can make my pizza by following my design while working safely and hygienically. I can evaluate my pizza once it is made	I can use my skills to design my own glove puppet. I can think about different techniques to use and share my ideas to help create my design. I can follow my design to make my glove puppet. I can choose the right materials and work safely and carefully. I can share and demonstrate my puppet. I can then evaluate my puppet using the worksheet provided.
Year 3	Year 3 Autumn British Inventors I can learn about Alexander Graham Bell and his invention of the telephone. I can discuss how it changed people's lives and how recent developments, like smartphones, have made an impact. I can test different string telephones or design a phone of the future. I can reflect on how I use the World Wide Web. I can explore the differences between the internet and the WWW and learn about Tim Berners-Lee. I can discuss how this invention has affected people's lives. I can investigate the word 'reinforce' and learn about W. B. Wilkinson's invention of	Year 3 Spring Rainforest Frogs I can describe what a poison dart frog is and identify its colours and patterns. I can design a poison dart frog beanbag, considering colour, pattern, and decoration. I can follow a step-by-step process to create my poison dart frog beanbag. I can use different materials such as felt, thread, and glue to assemble my beanbag. I can sew the parts of my beanbag together.	Year 3 Summer Seasonal Food I can learn why certain British foods are seasonal and consider the pros and cons of having foods from other parts of the world available all year. I can learn more about how wheat is produced. I can learn how and when different fruits are grown in Britain and how farming methods can speed up or slow down ripening. I can cook fruit to make jam. I can learn about different vegetables grown in Britain, when they are in season, and why they are important for a healthy diet. I can create a seasonal food collage.



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	reinforced concrete. I can explore how it is used in record-breaking buildings and experiment with reinforcing modroc or paper. I can learn about the invention of waterproof fabric and the Mackintosh coat. I can think about the properties needed for a waterproof coat and try to waterproof a piece of paper to make an origami boat. I can reflect on the inventions I have learned about and explore more inventors and their creations. I can think about which inventions have changed people's lives the most and discuss how they have evolved and may continue to develop in the future.	I can use a template to accurately cut and assemble the pieces of my beanbag. I can evaluate my finished poison dart frog beanbag and suggest improvements.	I can learn about the nutritional value of meat, eggs, and dairy products and find out why some meats are seasonal while others are available year-round. I can taste and describe different vegetarian foods. I can learn how, where, and when fish is farmed or caught in Britain. I can explore issues related to fishing and learn about quality assurance marks on fish. I can create an information text about reducing fish consumption to help prevent overfishing. I can learn about unusual foods that are only in season for a short time each year. I can reflect on what I have learned by playing games.
Year 4	Year 4 Autumn Bread I can learn about different types of bread and the cultures or regions where they come from. I can taste and describe a variety of breads. I can learn how bread fits into a balanced diet. I can learn about the nutritional content of bread and think of different ways it can be used in meals. I can design healthy meals that include different types of bread. I can learn about the ingredients in bread and how they are used. I can make bread by following a recipe or adapting it with my own ideas. I can create my own bread recipes and think about how it might look, like flat, plaited, or as a large 'bun'.	Year 4 Spring Light up signs I can consider the purpose of illuminated signs and identify different ways signs can be lit up. I can make simple circuits with bulbs, thinking about how the components might be hidden. I can look at electronic products with LEDs and learn how LEDs can be used in simple series circuits with a resistor. I can make my own simple circuits with LEDs and other parts. I can think about how electrical components in a simple circuit can be hidden inside products to make them look better. I can design my own decorative light box-style sign, drawing my design. I can think about the pros and cons of using different materials to build a decorative light box sign. I can construct my sign using scrap materials like cardboard. I can think about how to make more permanent circuits to fit inside my finished light box sign. I can also design, make, and test switches using scrap materials like drawing pins or paper clips.	Year 4 Summer Storybooks I can examine different books with moving mechanisms and discuss their design and construction using technical vocabulary. I can then closely examine some moving mechanisms, sketch them, and label their parts. I can learn how to create moving mechanisms using card or paper. I can work independently or in groups to build my own mechanisms. I can think about the importance of good graphic design and font choice for storybooks. I can practice sketching, shading, and writing techniques, or use computer software to explore how fonts can be selected and changed to suit a purpose. I can work on my own or with others to draw and annotate designs for a storybook with moving mechanisms.



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	I can refer to my designs to make and bake my own bread. I can taste and evaluate my bread recipe, and suggest ways to improve it.	I can think about how lights in electronic products can be programmed and controlled. I can debug simple code block programs to make an LED blink, and I can program virtual fairy lights in a Scratch project.	I can refer to my design to create a storybook with moving mechanisms. I can share, discuss, and evaluate my completed storybook with moving mechanisms and those made by others.
Year 5	Year 5 Autumn Gingerbread Houses I can research existing edible houses and use this inspiration to design my own gingerbread house. I can make sure my design includes the features and measurements that meet the design criteria. I can sketch and label my design, then work with others to create a final group design. I can begin to turn my designs into working pattern pieces for my edible house. I can use a computer to create accurate templates. I can use CAD software to create a 3D representation of my design. I can learn the benefits of planning ahead and using prototypes when developing a product. I can test my gingerbread house templates to ensure they are the correct size. I can change my design if necessary based on what I learn. I can be accurate, patient, and resilient while building my edible house. I can use my templates to cut out each piece and bake them. I can learn how to pipe icing to construct and decorate my edible house. I can use piping to stick decorations and create designs on my house. I can choose the right tools for decorating.	Year 5 Spring Fashion and textiles I can discover how some natural and synthetic textiles are made and think about how they are used in clothing. I can put in order how cotton cloth is made. I can start to learn about the work of fashion designers and explore ways textiles can be joined and decorated. I can practice hand sewing stitches or identify machine stitching patterns on different garments. I can learn how fashion designers use pattern pieces when making products. I can draw designs for a bag for a specific person or purpose. I can learn how design features from pattern pieces are transferred to fabric. I can transfer my pattern piece designs to fabric. I can learn how to pin and hand-sew fabric pieces together. I can sew the pieces I cut out and marked earlier. I can learn how to finish a hand-sewn product. I can finish sewing and decorating my own bag designs using different techniques.	Year 5 Summer Bridges I can learn how simple bridges are made using beams, pillars, or piers, then create and test my own beam bridge designs. I can learn how trusses are used in bridge design to spread out compression forces. I can either build and test model truss bridges. I can learn how arches help to spread and redirect compression forces acting on bridges. I can then build and test model arch bridges. I can learn how suspension bridges use tension to support bridge decks over long distances. I can research and write about famous suspension bridges. I can create criteria for a bridge design that will meet the given design brief. I can then design my bridge based on my criteria or come up with more criteria for different design briefs. I can think about how I will test my bridge design once it's built. I can then build and test my design.



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	I can evaluate my work and get feedback from my peers about my edible house. I can use this feedback to help me evaluate and improve my final product.		
Year 6	Year 6 Autumn Great British Foods I can learn what a national dish is and explore some national savoury dishes of England. I can look at their origins and discuss how healthy they are. I can explore some national sweet dishes of England and learn about their healthiness. I can understand Recommended Daily Allowance (RDA) values for sugar and look at how seasonal fruits provide natural sweetness for desserts. I can then research and design my own Eton Mess dessert. I can find out how oats are grown, harvested, and processed in Scotland and explore national Scottish dishes that use oatmeal. I can then either design sweet and savoury toppings for oatcakes I can learn about the importance of sheep farming in Wales and how lamb has become a key ingredient in Welsh cuisine. I can explore different Welsh dishes learn about a year in the life of a sheep farmer. I can explore how and why cuisines from other countries have influenced British dishes, focusing on Anglo-Indian food. I can either research how different countries have shaped British cooking. I can learn about the shelf life of different food products and the difference between	Year 6 Spring Extreme Regions I can think about what I would save if my home were destroyed in a natural disaster, considering what is most valuable and difficult to replace. I can explore and test different materials to find out which ones are waterproof and which ones are not. I can investigate the best ways to join different materials together to make a strong and effective waterproof container. I can design a waterproof container, thinking about the materials, structure, and purpose of my container. I can follow my design to create a waterproof container that could protect valuable objects in a natural disaster. I can evaluate my waterproof container by testing how well it works and thinking about ways I could improve it. I can recall key facts about extreme weather and other natural phenomena. I can explore different ways to present information in an interactive way. I can design an interactive info-box that presents information clearly and engagingly. I can experiment with different materials and techniques to create interactive features for my info-box. I can follow my design to make an interactive info-box using a variety of materials and tools.	Year 6 Summer Fairgrounds I can explore and discuss different fairground rides I have been on. I can think about how they move, what components join them together, and what mechanisms make them work by labelling different pictures of fairground rides. I can explore how pulleys and belts create rotational movement using a motor. I can investigate how different-sized pulleys and the way the belt is placed affect movement. I can experiment with different ways to program a motor to control speed, direction, and pulses of movement. I can investigate how to create a strong framework for different fairground rides. I will take on various challenges to learn skills that will help me construct my own fairground ride. I can use my research and learning from previous lessons to design a rotating fairground ride. I will consider the making process, the materials, and the tools I need. I can create my electrical rotating fairground ride based on my planned design. I will use the methods I experimented with to create a stable structure with moving parts and a hidden electrical circuit. I can reflect on and evaluate my fairground ride. I will answer key questions to assess my work and think about ways to improve it



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'best before' and 'use by' labels. I can explore how to plan and shop for a meal. I can then plan a meal that represents great British food. I can then plan and follow a recipe to cook a cottage pie.

I can include a simple electrical circuit in my info-box to enhance its interactivity.

I can evaluate my interactive info-box and suggest ways to improve it.