Progress in Design and Technology: EYFS, Key Stage 1 and 2

At Friarage, it is our intent to provide children with a real-life context for learning in our rapidly changing technological world and one which helps to prepare them for living in a world in which sustainability and the environment must be given increasing priority.
Our curriculum is structured specifically to inspire and foster creativity in designing and making and is combined with the progressive acquisition of knowledge, skills and understanding in order to design for a defined purpose and tangible outcome.
Through our high-quality Programme of Studies pupils study past and present technologies which helps them to develop a critical understanding of the impact of innovations on daily life. Where possible they are given opportunities to: meet industry workers, execute product research, disassemble, and build and make prototypes, represent ideas, explore, and investigate, innovate and risk-take to help develop ideas, before making and evaluating their products.
A range of tools, resources and materials are used, including ICT, to create effectively constructed and aesthetically pleasing results. We encourage children to work both independently and in teams, to consider differing needs and to be resourceful and enterprising; building resilience in their problem solving, all of which helps to equip children for life beyond our primary school.

DESIGN AND TECHNOLOGY SUBJECT PROGRESSION - EYFS		
	Nursery	Reception
Key Questions	Do they have basic hygiene awareness when cooking or baking? Can they mix ingredients using a bowl and spoon? Can they make models using craft materials, malleable materials, and small construction? Can they use one-handed tools and equipment, for example, to make snips in paper with scissors?	Are they beginning to understand some of the tools, techniques and processes involved in making food? Can they handle small tools, including scissors and cutlery with control? Can they build and construct with a wide range of materials? Can they select the tools and techniques they need to shape, assemble, and join materials? Can they work collaboratively, sharing ideas, resources, and skills?

NATIONAL CURRICULUM	KS1	LKS2	UKS2
Design	Pupils should be taught to: • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Pupils should be taught to: • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups 4 5 • generate, develop, model, and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 4 5	
Make	Pupils should be taught to: • select from and use a range of tools and equipment to perform practical tasks [e.g., cutting, shaping, joining, and finishing] • select from and use a wide range of materials and components, including construction materials, textiles, and ingredients, according to their characteristic	Pupils should be taught to: • select from and use a wider range of tools and equipment to perform practical tasks [e.g., cutting, shaping, joining, and finishing], accurately 5 • select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities 5	
Evaluate	Pupils should be taught to: • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria	Pupils should be taught to: • investigate and analyse a range of existing products 5 • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work 4 5 • understand how key events and individuals in design and technology have helped shape the world 5	

Technical Knowledge	Pupils should be taught to: • build structures, exploring how they can be made stronger, stiffer, and more stable • explore and use mechanisms [e.g., levers, sliders, wheels and axles], in their products	Pupils should be taught to: • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] 4 5 • understand and use electrical systems in their products [e.g., series circuits incorporating switches, bulbs, buzzers, and motors] • apply their understanding of computing to program, monitor and control their products
Cooking and Nutrition	Pupils should be taught to: • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from	Pupils should be taught to: • understand and apply the principles of a healthy and varied diet 5 • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality, and know where and how a variety of ingredients are grown, reared, caught, and processed 5

DESIGN TECHNOLOGY SUBJECT PROGRESSION

	KS1 Year A	KS1 Year B	LKS2 Year A	LKS2 Year B	YEAR 5	YEAR 6
Developing, planning, and communicating ideas	Can they think of some ideas of their own? Can they explain what they want to do? Can they use pictures and words to plan? Can they explain what they are making? Can they make simple plans before making objects, e.g., Drawings, arranging pieces of construction before building?	Can they think of ideas and plan what to do next? Can they choose the best tools and materials? Can they give a reason why these are best? Can they describe their design by using pictures, diagrams, models, and words with a detailed plan?	Can they show that their design meets a range of requirements? Can they put together a step-by-step plan which shows the order and also what equipment and tools they need? Can they describe their design using an accurately labelled sketch and words? How realistic is their plan?	Can they come up with at least one idea about how to create their product? Do they take account of the ideas of others when designing? Can they produce a plan and explain it to others? Can they suggest some improvements and say what was good and not so good about their original design?	Can they come up with a range of ideas after they have collected information? Do they take a user's view into account when designing? Can they produce a detailed step-by-step plan? Can they suggest some alternative plans and say what the good points and drawbacks are about each?	Can they use a range of information to inform their design? Can they use research to inform plans? Can they work within constraints? Can they follow and refine their plan if necessary? Can they justify their plan to someone else? Do they consider culture and society in their designs?
Working with tools, equipment, materials, and components to make quality products	Which tools are they using? Can they make a structure/ model using different materials? Is their work tidy? Can they cut materials using scissors? Can they describe the materials using different words?	Can they join things (materials/ components) together in different ways? Can they make a product which moves?	Can they use equipment and tools accurately?	Can they tell if their finished product is going to be good quality? Are they conscience of the need to produce something that will be liked by others? Can they show a good level of expertise when using a range of tools and equipment? Do they work at their product even though their original idea might not have worked?	Can they explain why their finished product is going to be of good quality? Can they explain how their product will appeal to the audience? Can they use a range of tools and equipment expertly? Do they persevere through different stages of the making process?	Can they use tools and materials precisely? Do they change the way they are working if needed?

Evaluating processes and products	Can they describe how something works? Can they talk about their own work and things that other people have done? Can they make their model stronger if it needs to be? Can they say why they have chosen moving parts? Can they talk with others about how they want to construct their product? Can they select appropriate resources and tools for their building projects?	Can they explain what went well with their work? If they did it again, can they explain what they would improve?	Can they explain what they changed which made their design even better?	Have they thought of how they will check if their design is successful? Can they begin to explain how they can improve their original design? Can they evaluate their product, thinking of both appearance and the way it works? Do they take time to consider how they could have made their idea better?	Do they keep checking that their design is the best it can be? Do they check whether anything could be improved? Can they evaluate appearance and function against the original criteria?	How well do they test and evaluate their final product? Is it fit for purpose? What would improve it? Would different resources have improved their product? Would they need more or different information to make it even better? Does their product meet all design criteria? Did they consider the use of the product when selecting materials?
Cooking and Nutrition	Can they cut food safely? Can they describe the texture of foods? Do they wash their hands and make sure that surfaces are clean? Can they think of interesting ways of decorating food they have made, e.g., cakes?	Can they describe the properties of the ingredients they are using? Can they explain what it means to be hygienic? Are they hygienic in the kitchen?	Can they choose the right ingredients for a product? Can they use equipment safely? Can they make sure that their product looks attractive? Can they describe how their combined ingredients come together? Can they set out to grow plants such as cress and herbs from seed with the intention of using them for their food product?	Do they know what to do to be hygienic and safe? Have they thought what they can do to present their product in an interesting way?	Can they describe what they do to be both hygienic and safe? How have they presented their product well?	Can they explain how their product should be stored with reasons?

Textiles	Can they describe how different textiles feel? Can they make a product from textiles by gluing?	Can they measure textile? Can they join textiles together to make something? Can they cut textiles? Can they explain why they chose a certain textile?		Do they think what the user would want when choosing textiles? Have they thought about how to make their product strong? Can they devise a template? Can they explain how to join things in a different way? Can they join textiles of different types in different ways? Can they choose textiles both for their appearance and also qualities?		
Mechanisms	Can they make a product which moves? Can they cut materials using scissors? Can they describe the materials using different words? Can they say why they have chosen moving parts?	Can they join materials together as part of a moving product? Can they add some kind of design to their product?	Do they select the most appropriate tools and techniques to use for a given task? Can they make a product which uses both electrical and mechanical components? Can they use a simple circuit? Can they use a number of components? Can they add things to their circuits? How have they altered their product after checking it? Are they confident about trying out new and different ideas?		Can they research different toys that use cams and suggest how they work? Can they explore different cam designs? Can they design their own moving toy? Can they refine their product after testing it?	Can they research model energy efficient types of transportation (solar, wind and E-powered vehicles). Can they design their own wind-powered prototype car? Can they make a balloon powered car? Can they test and evaluate the car and suggest changes for the future?

Use of Materials	Can they make a structure/model using different materials? Is their work tidy? Can they make their model stronger?	Can they measure materials to use in a model or structure? Can they join material in different ways? Can they use joining, folding, or rolling to make it stronger?	Do they use the most appropriate materials? Can they work accurately to make cuts and holes? Can they join materials?	Can they measure carefully so as to make sure they have not made mistakes? How have they attempted to make their product strong?	Are their measurements accurate enough to ensure that everything is precise? How have they ensured that their product is strong and fit for purpose?	Can they justify why they selected specific materials? How have they ensured that their work is precise and accurate? Can they hide joints so as to improve the look of their product?
Construction	Can they talk with others about how they want to construct their product? Can they select appropriate resources and tools for their building projects? Can they make simple plans before making objects, e.g., drawings, arranging pieces of construction before building?	Can they make sensible choices as to which material to use for their constructions? Can they develop their own ideas from initial starting points? Can they incorporate some type of movement into models? Can they consider how to improve their construction?	Do they select the most appropriate materials? Can they use a range of techniques to shape and mould? Do they use finishing techniques?	Can they use a range of advanced techniques to shape and mould? Do they use finishing techniques, showing an awareness of audience?	Do they construct their products with precision and refine them where necessary, showing an awareness of their audience?	Can they justify why the chosen material was the best for the task? Can they justify design in relation to the audience?