Our Golden Threads: vocabulary, knowledge of the world and promoting diversity

Our curriculum is knowledge based and designed to have an impact on long term memory. See long, medium, short term plans and knowledge mats regarding curriculum content and coverage. The following outlines the progress expected within the subject and helps to provide progression throughout the school in our mixed age classes.

Due to the impact of Covid, teachers assess children at the beginning of units of work and track back through the colours when necessary, to fill gaps and ensure sound understanding before moving on.

Curriculum Progression in Design Technology

	Rainbow reference	DESIGN AND DEVELOP Children can:	MAKING Children can:	PRODUCT AND EVALUATION Children can:
Pre-school	White	Begin to follow an adult's design	Make simple models with adult support	Be excited about what they have made
Reception	Red	Talk about what they want to make Follow an example	Make simple models	Talk about what they like and about what they have created
Year One	Orange	Generate ideas from their own experience Talk about their ideas and say what will be done Describe what they want to do using pictures and words Make lists of materials they will need	Know the features of some familiar products Join two materials together, often with glue Use scissors or a knife to cut, sometimes with help Make simple models, not necessarily with a purpose Use simple construction kits – e.g. Lego Know about basic hygiene and safety	Recognise the characteristics of familiar products Know how some moving objects work Use simple terms to talk about their own and others' work Identify materials and mechanisms in familiar products Know the benefits of fruit and vegetables
Year Two	Yellow	Generate ideas, and plan what to do next, using their experience of materials and components Use their knowledge of some working characteristics of materials when designing Use wheels, slides and levers in plans	Begin to select tools for folding, joining, rolling Measure out and cut fabric Use a simple template for cutting out Practise skills before using them Use simple finishing techniques	Talk about how moving objects work Describe how a commercial product works Use like and dislike when evaluating or describing Explain why some products are useful Use digital photography to present design or finished work

		Use plans to show how to put their ideas into practice Say how the product will be useful to the user Draw pictures with labels, with some text	Select tools and techniques appropriate to the job Follow basic safety rules Understand and use the terms ingredient and component Use simple scales or balances Understand main rules of food hygiene	Recognise what they have done well and talk about what could be improved Seek out the views and judgements of others Predict how changes will improve the finished product
Year Three	Green	Use others to help generate their ideas Use what they know about the properties of materials Plan their work to include a range of joins Ensure that plans are realistic and appropriate for the aim Show the order of working in plans Use models, pictures and words in designs Make increasing use of ICT to plan ideas Recognise that designs must meet a range of needs Say why something will be useful Apply what they know about mechanisms to create movement when planning and designing Investigate a range of products to see how they work	Measure and cut out using centimetres and weigh in grams Choose tools and equipment which are appropriate for the job Prepare for work by assembling components together before joining Use scoring and folding for precision Make holes using a punch and drill Work out how to make models stronger Alter and adapt materials to make them stronger Combine a number of components together in different ways Make the finished product neat and tidy Begin to select their own ingredients when cooking or baking Make good presentation of food	Be clear about their ideas when asked Can alter and adapt original plans following discussion and evaluation Recognise what has gone well, but suggest further improvements for the finished article Suggest which elements they would do better in the future Identify where evaluation has led to improvements Understand safe food storage
Year Four	Blue	Collect and use information to generate ideas Consider the way the product will be used Understand designs must meet a range of criteria and constraints Take users' views into account Understand how some properties can be used – e.g. waterproof Think ahead about the order of their work Add electricity to create motion or make light Produce step by step plans Make ongoing sketches and annotations	Increasingly model their ideas before making Measure accurately to centimetres and grams Combine materials for strength and to improve how the product looks Use permanent and temporary fastenings to join Join with a greater range of techniques – e.g. staples Strengthen joins and corners in a variety of ways	Talk about what they like and dislike, giving reasons Develop their designs through their own reflection and the evaluation of others Carry out tests before making improvements Evaluate food by taste, texture, flavour etc

			Understand how wheels, axles, turning mechanisms, hinges and levers all work together	
Year Five	Indigo	Make more complex designs to include belts and pulleys, and a combination of other mechanisms Plan the order of work by thinking ahead Use sketches to show other ways of doing things – and then make choices Meet an identified need – e.g. a meal for an older person – by selecting ingredients or materials Use various sources of information and draw on them in design	Carry out tests to see if their design works Make improvements from design suggestions Work in a safe and hygienic way Measure and cut precisely to millimetres Make stable and strong joins to stand the test of time Use proportions when cooking, by doubling and halving recipes	Identify what is working well and what might be improved – and make choices from several alternatives Refine the quality of the finished product, including making annotations on the design Clarify ideas through drawing and modelling Increasingly use testing to improve models and finished products
Year Six	Violet	Keep cost constraints in mind when selecting materials in design Use their knowledge of –e.g.- science and art when designing Be aware of commercial aspects and incorporate these into their designs Design including hydraulics and pneumatics when where appropriate Draw scaled diagrams with increasing use of ratio Calculate the amount of materials needed use this to estimate cost	Measure and cut out in precise detail, and make sure that finished products are carefully finished Make separate elements of a model before combining into the finished article Understand how an article might be mass produced Produce a simple instruction manual or handbook for their product	Research products using the internet Test and evaluate commercial products, understanding how this information supports their own designs Evaluate a range of different sources of information such as advertising and handbooks