Suffield Park Infant and Nursery School Progression Map for Design and Technology

Confident, Resilient, Ambitious , Brilliant

Year Group	Knowledge	Skills	Vocabulary
	Construction	Physical Development, Expressive Arts and Design	
R	Range 5 ● Knows how to use one handed tools and equipment ● Understands that equipment and tools need to be used safely ● Realises that tools can be used for a purpose ● Understands how to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces Range 6 ● Shows increasing control over an object in ● pushing, patting, throwing, catching or kicking it ● Uses simple tools to effect changes to materials ● Handles tools, objects, construction and malleable materials safely and with increasing control and intention ● Knows how to transport and store equipment safely. ● Understands the need for safety measures without direct supervision. ● Understands the need for safety when tackling new challenges, and considers and manages some risks. Statutory ELG: Gross & Fine Motor Skills Children at the expected level of development will: ● - Demonstrate strength, balance and coordination when playing; ● Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; ● Use a range of small tools, including scissors, paint brushes and cutlery; ● Begin to show accuracy and care when drawing.	Range 5 ● Manipulates a range of tools and equipment in one hand, tools include paintbrushes, scissors, hair brushes, toothbrush, scarves or ribbons ● Develops an understanding of using lines to enclose a space, and begins to use drawing to represent actions and objects based on imagination, observation and experience ● Uses various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces ● Uses tools for a purpose Range 6 ● Uses their increasing knowledge and understanding of tools and materials to explore their interests and enquiries and develop their thinking ● Develops their own ideas through experimentation with diverse materials, e.g. light, projected image, loose parts, watercolours, powder paint, to express and communicate their discoveries and understanding.	Scissors Cut Snip Build Balance Construction Safe Stack Fix Design Make Hammer Nail

		• Expresses and communicates working theories, feelings and understandings using a range of art forms, e.g. movement, dance, drama, music and the visual arts. Statutory ELG: Creating with Materials Children at the expected level of development will: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.	
Topic	**Construction**		
In Key Stage 1, pupils should learn how to make structures stronger, stiffer and more stable. This will include exploring and assembling construction kits using reusable resources such as Lego. The products designed can be for an imaginary or real person / group but the design and making criteria must be clear and the consumer identified. Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].			
1	**Design** • 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 • To know the properties of certain materials (link to Science) • To know what a label is and why it is useful on a design • To understand why a design is used • To include the needs of your audience in the design • To know what reusable resources are	**Design** • Can draw and label what their product will look like • Can design a product according to a simple design brief e.g **make an model from recycled materials – link to Power of Reading text and Science** • Can use information from research to support their design e.g. including a specific colour in the design because of what they found out	Design Product Label Materials Research Lever Slider Axel Wheels Hammer Nail properties

		• Can explore and use mechanisms e.g. Leavers, sliders, wheels, and axles as part of their • Can talk through their ideas or plans	
	Make • select from and use a range of tools and equipment to perform practical tasks [for example, 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 characteristics • To know what cutting and shaping is • To know what joining is • To be able to name materials used for joining – glue, tape, masking tape etc **Technical knowledge** • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**Make** • Can cut materials safely using the tools provided • Can mark out a size by comparison • Can select appropriate materials to join parts e.g. tape, glue, masking tape • Can build and reflect on whether a prototype has worked and make changes whilst in process • Shows an awareness of safety when using tools including scissors • Can make a moving picture using a slider	Shaping Joining Construction Hammer Nail Hand saw Wood Dowling Lever Axle Slider
	Evaluate – through discussion and peer assessment : • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria • To know what it means to talk about the suitability of a product • To know what improvement means	**Evaluate-through discussion** • Can say what they like or dislike about a design • Can talk about what you might do differently based on what you have learned	evaluate Improve Design suitability
2	**Design** • design purposeful, functional, appealing products for themselves and other users based on design criteria	**Design** • Can draw and label what their product will look like	Label Design Research Questionnaire Criteria

	• generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology • To know the properties of certain materials- **consolidation of Yr1** • To use labels as part of designs • To understand what a product is • To explain what a why a design is used • To know that research can help to design a product for a particular person or group • To be able to use research information to support the design being a good match to the needs of the consumer • To know what an consumer is • To know what a prototype is	• Can design a product according to a set of simple product requirements – a three point criteria • Can refer back to information from research questionnaires to support their design • Can talk through their ideas or plans • Can gather research using a simple tick list or questionnaire designed with adult guidance	Product Consumer Properties prototype
	Make • select from and use a range of tools and equipment to perform practical tasks [for example, 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 characteristics • To know what it means to cut or shape-**consolidation of yr1** • To know what joining is-**consolidation of Yr1** • To know what measuring is and why it is important • To name the construction kits they have in their classrooms and talk about how they are the same or different • To know why it is useful to make a prototype before building a product **Technical knowledge** • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. • To name the construction kits they have in their classrooms and talk about how they are the same or different	**Make** • Can select their own tools e.g the correct scissors for their hand preference or a hole punch to make a hole • Can cut materials safely and with growing accuracy • Can measure and mark out a size using a ruler and cm as units • Can select appropriate materials to join parts e.g tape, glue, masking tape based on the specific need for fixing or joining • Can follow the safety rules and follow them when using tools including scissors	Shaping Joining Construct Hole punch Fix Attach Measure Mark out Centimetre
	Evaluate –through discussion • explore and evaluate a range of existing products • evaluate their ideas and products against design	**Evaluate** • Can say what went well	Consumer Suitability Product

	● To know what suitability means	● Can reflect on the suitability of the product for the intended consumer		
Year Group	**Knowledge**	**Skills**	**Vocabulary**	
	Cooking and Nutrition Physical Development- moving and handling / Health and Self Care			
R	Range 5 ● Knows how to use one handed tools and equipment ● Understands that equipment and tools need to be used safely ● Realises that tools can be used for a purpose ● Understands how to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces Range 6 ● Shows increasing control over an object in pushing, patting, throwing, catching or kicking it ● Uses simple tools to effect changes to materials ● Handles tools, objects, construction and malleable materials safely and with increasing control and intention ● Understands the need for safety measures without direct supervision. ● Understands the need for safety when tackling new challenges, and considers and manages some risks. ● Eats a healthy range of foodstuffs and understands need for variety in food ● Shows understanding of the need for safety when tackling new challenges, and considers and manages some risks by taking independent action or by giving a verbal warning to others ● Shows understanding of how to transport and store equipment safely ● Practices some appropriate safety measures without direct supervision, considering both benefits and risk of a physical experience Statutory ELG: Fine Motor Skills	Range 5 ● Manipulates a range of tools and equipment in one hand, tools include paintbrushes, scissors,hair brushes, toothbrush, scarves or ribbons ● Uses tools for a purpose ● Can follow simple instructions ● Takes practical action to reduce risk, showing their understanding that equipment and tools can be used safely ● Can wash and can dry hands effectively and understands why this is important ● Willing to try a range of different textures and tastes and expresses a preference. Range 6 ● Uses their increasing knowledge and understanding of tools and materials to explore their interests and enquiries and develop their thinking ● Develops their own ideas through experimentation with diverse materials, e.g. light, projected image, loose parts, watercolours, powder paint, to express and communicate their discoveries and understanding. ● Describes a range of different food textures and tastes when cooking and notices changes when they are combined or exposed to hot and cold temperatures ● Statutory ELG: Managing Self Children at the expected level of development will: - Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance	Ingredients Mix Cut Utensils- spoon, knife, teaspoon Bowl Healthy Fruit and vegetables Risk/ safety Equipment	

	Children at the expected level of development will: ● Use a range of small tools, including scissors, paint brushes and cutlery;	of healthy food choices.	
Topic	**Cooking and Nutrition**		

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].**Cooking and nutrition - National Curriculum Key stage 1 As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.**

1	Knowledge	Skills	Vocabulary :
	Design ● use the basic principles of a healthy and varied diet to prepare dishes ● understand where food comes from. ● To know what a label is and why it is useful in a design ● To know what ingredient means ● To understand why a design criteria is used ● To know why a hygienic and safe environment is important ● To know where food comes from – plant or animal	**Design** ● Can draw and label a design to show what their product will look like **eg design a biscuit for Power of Reading Text OR character** ● Can design a product based on a simple criteria given	Label Design Product Design Properties Ingredients Hygienic Safe

	Make ● use the basic principles of a healthy and varied diet to prepare dishes ● To know how to safely and hygienically prepare ingredients ● To know the terms cut, peel, grate ● To know what it means to weigh ingredients and why it is important ● To know about what it means to eat healthy and about the five a day recommendation –link to Science and PE	**Make** ● Can cut, peel, or grate ingredients safely and hygienically ● Can measure and weigh ingredients using spoons or cups or electronic scales (with support) ● Can prepare simple snacks or dishes with or without a heat sources e.g **fruit salad, sandwich, gingerbread** ● Can help to plan and maintain a hygienic and safe environment to prepare their product in e.g washing hands or rules around using knives and utensils	Weigh Grate Cut Peel Measure Hygienic Ingredients Heat Cook Mix Healthy Farmed Caught Fruit Vegetables
	Evaluate – through discussion and peer assessment ● explore and evaluate a range of existing products ● evaluate their ideas and products against design ● To know what suitability is ● To know what improvement means	**Evaluate** ● Can say what they like and dislike about a product based on taste and appearance ● Can suggest how the product might be improved if made again	Suitability Improvement Design Make
2	**Design** ● use the basic principles of a healthy and varied diet to prepare dishes ● to understand where food comes from (origin) ● To know the properties of ingredients and use this to help in selecting ingredients e.g adding sugar makes it sweet ● To understand what a product is ● To know that food can be farmed, grown in other places including at home or caught	**Design** ● Can select ingredients based on properties ● Can draw and label a design to show what their product will look like ● Can make a list of resources or equipment that will be needed for the making process ● Can design a product based on a simple set of criteria of at least three points e.g. a healthy snack that does not need to be cooked ● Can help to plan and maintain a hygienic and safe environment to prepare their product in e.g washing hands or rules around using knives and utensils	Consumer Suitability Improvement Product Criteria Hygienic

	Make ● use the basic principles of a healthy and varied diet to prepare dishes ● To know how to safely and hygienically prepare ingredients ● To know what it means to weigh ingredients and why it is important ● To know about food categories and healthy portions ● To know the difference between sweet and savoury foods ● To know why a hygienic and safe environment is important and name ways in which we can achieve this	**Make** ● Can cut, peel, chop, slice or grate ingredients safely and hygienically as part of food preparation ● Can measure and weigh ingredients using spoons or cups or electronic scales (link to Maths for reading scales) ● Can prepare simple snacks or dishes with or without a heat sources **e.g soup, salad**	Grate Cut Peel Chop Slice Measure Weigh Scales Prepare Sweet Savoury Utensil names Chopping board
	Evaluate – through discussion and peer assessment ● explore and evaluate a range of existing products ● evaluate their ideas and products against design ● To know what suitability is ● To know what a consumer is ● To know that food can be evaluated based on appearance and taste	**Evaluate** ● Can say whether the product was well matched to the intended consumer ● Can suggest how the product might be improved and talk about what went well	Consumer Suitability Improvement Product Criteria Hygienic Evaluation

Year Group	Knowledge	Skills	Vocabulary
	Textiles	**Expressive Arts and Design/ Physical Development**	

R	Range 5 ● Knows how to use one handed tools and equipment ● Understands that equipment and tools need to be used safely ● Realises that tools can be used for a purpose ● Understands how to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces Range 6 ● Shows increasing control over an object in ● pushing, patting, throwing, catching or kicking it ● Uses simple tools to effect changes to materials ● Handles tools, objects, construction and malleable materials safely and with increasing control and intention ● Knows how to transport and store equipment safely. ● Understands the need for safety measures without direct supervision. ● Understands the need for safety when tackling new challenges, and considers and manages some risks. Statutory ELG: Gross & Fine Motor Skills Children at the expected level of development will: ● - Demonstrate strength, balance and coordination when playing; ● Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; ● Use a range of small tools, including scissors, paint brushes and cutlery; ● Begin to show accuracy and care when drawing.	Range 5 ● Manipulates a range of tools and equipment in one hand, tools include paintbrushes, scissors,hair brushes, toothbrush, scarves or ribbons ● Develops an understanding of using lines to enclose a space, and begins to use drawing to represent actions and objects based on imagination, observation and experience ● Uses various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces ● Uses tools for a purpose Range 6 ● Uses their increasing knowledge and understanding of tools and materials to explore their interests and enquiries and develop their thinking ● Develops their own ideas through experimentation with diverse materials, e.g. light, projected image, loose parts, watercolours, powder paint, to express and communicate their discoveries and understanding. ● Expresses and communicates working theories, feelings and understandings using a range of art forms, e.g. movement, dance, drama, music and the visual arts. Statutory ELG: Creating with Materials Children at the expected level of development will: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.	Scissors Cut Snip Material Fabric Thread Weave
Topic	Textiles		

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in the process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].			
1	**Design** ● 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 ● To know the properties of materials and use it to influence choices (link to Science) ● To know what a label is and why it is useful in a design ● To understand why a design criteria is used ● To know the names given to some textiles e.g wool, cotton, denim , leather (link to Science and Power of Reading Text - Halibut Jackson)	**Design** ● Can select materials based on their properties (Link to Science Spring Term) ● Can draw and label a picture, plan or diagram of what they intend their product to look like ● Can design a product based on a simple criteria – **e.g design an outfit like Halibut Jackson (not all design lessons need to lead to practical making)**	Design Product Knit Label Criteria Fabric Material Stitch Sew
	Make ● select from and use a range of tools and equipment to perform practical tasks [for example, 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 characteristics ● To know what a template is and how to use one ● To know that instructions are helpful for making a product	**Make** ● Can make or use a template to support cutting out a fabric shape ● Can join materials together ● Can use textiles to decorate a product made within their construction based DT lessons	Template Stitch Join Decorate
	Evaluate – through discussion and peer assessment ● explore and evaluate a range of existing products ● evaluate their ideas and products against design ● To know what suitability is ● To know what improvement means	**Evaluate – through discussion** ● Can say what they like or dislike about a design or product ● Can talk about what went well ● Can say if it matched the design ● Can suggest how we could improve the product or how it could be better	Suitability Improvement Product Criteria improvement
2	**Design** ● 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 ● To use knowledge of properties of materials to influence choices ● To understand what a product is ● To understand why a design criteria is used	**Design** ● Can select materials based on their properties ● Can draw and label a picture, plan or diagram of what they intend their product to look like ● Can design a product based on a simple set of criteria ● Can add colour and decorate fabrics using art techniques - **printing (Link to Art and Design Plan)**	Design Product Knit Label Criteria Fabric Material Stitch Sew

	● To know that the way we make things has changed e.g knitting and factory machine clothing To know what a prototype is		Factory made Hand made Fabric names
	Make ● select from and use a range of tools and equipment to perform practical tasks [for example, 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 characteristics ● To know what a template is and how to use one ● To know that stitching can be used to join two pieces of material together ● To know that instructions are helpful for making a product ● To name techniques from art that could be used to decorate or colour fabrics e.g printing	**Make** ● Can make or use a template to support cutting out a fabric shape ● Can join textiles using a running stitch with growing independence ● Can add colour and decorate fabrics using art techniques (see art progression map for printing, dyeing etc ● Can explain why a designer might choose to decorate a product rather than just make ● Can thread a needle (with initial support)	Template Running Stitch Join Decorate Textiles Needle Thread Print
	Evaluate – through discussion and peer assessment ● explore and evaluate a range of existing products ● evaluate their ideas and products against design ● To know what suitability is ● To know what improvement means ● To know what a consumer is	**Evaluate – through discussion** ● Can say what they like or dislike about a design or product ● Can say whether the product matched the criteria for the design-what went well ● Can suggest how we could improve the product or how it could be better	Suitability Improvement Consumer Product Criteria improvement prototype