



Design & Technology Progression Map 2024-2025

EYFS

Design	Make	Evalute	structures	Food
ELG: Listening, Attention and Understanding - Hold conversation when engaged in back and-forth exchanges with their teacher and peers. ELG: Speaking Participate in small group, class and one-to-one discussion, offering their own ideas, using recently introduced vocabulary. ELG: Self-Regulation Set and work towards simple goals, being able to wait for what they want and control their immediate impulses when appropriate	ELG: Creating with Materials Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.			
	ELG: Managing self Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. ELG: Fine motor skills Use a range of small tools, including scissors, paintbrushes and cutlery. ELG: Creating with Materials 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.	ELG: Listening, Attention and Understanding Hold conversation when engaged in back-and-forth exchanges with their teacher and peers. ELG: Speaking Offer explanations for why things might happen, making use of recently introduced vocabulary. ELG: Speaking Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher. ELG: Managing self Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. ELG: Creating with Materials Share their creations, explaining the process they have used.	ELG: Managing self Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. Set and work towards simple goals, being able to wait for what they want and control their immediate impulses when appropriate. ELG: Fine motor skills Use a range of small tools, including scissors, paint brushes and cutlery;	

	Autumn Term	Spring Term	Summer Term
Year 1 DT Projects on a Page	Mechanisms Sliders and Levers <u>Prior learning in EYFS</u> • Early experiences of working with paper and card to make simple flaps and hinges. • Experience of simple cutting, shaping and joining skills using scissors, glue, paper fasteners and masking tape. <u>Designing</u> • Generate ideas based on simple design criteria and their own experiences, explaining what they could make. • Develop, model and communicate their ideas through drawings and mock-ups with card and paper. <u>Making</u> • Plan by suggesting what to do next. • Select and use tools, explaining their choices, to cut, shape and join paper and card. • Use simple finishing techniques suitable for the product they are creating. <u>Evaluating</u> • Explore a range of existing books and everyday products that use simple sliders and levers. • Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.	Structures Freestanding Structures <u>Prior learning in EYFS</u> • Experience of using construction kits to build walls, towers and frameworks. • Experience of using of basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card. • Experience of different methods of joining card and paper <u>Designing</u> • Generate ideas based on simple design criteria and their own experiences, explaining what they could make. • Develop, model and communicate their ideas through talking, mock-ups and drawings. <u>Making</u> • Plan by suggesting what to do next. • Select and use tools, skills and techniques, explaining their choices. • Select new and reclaimed materials and construction kits to build their structures. • Use simple finishing techniques suitable for the structure they are creating. <u>Evaluating</u> • Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings. • Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria	Food Preparing fruit/Vegetables Fruit Kebab or Smoothie <u>Prior learning IN EYFS</u> • Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. • Experience of cutting soft fruit and vegetables using appropriate utensils weekly <u>Designing</u> • Design appealing products for a particular user based on simple design criteria. • Generate initial ideas and design criteria through investigating a variety of fruit and vegetables. • Communicate these ideas through talk and drawings. <u>Making</u> • Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely. • Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product. <u>Evaluating</u> • Taste and evaluate a range of fruit and

			vegetables to determine the intended user's preferences. • Evaluate ideas and finished products against design criteria, including intended user and purpose.
	Autumn Term	Spring Term	Summer Term
Year 2 DT Projects on a Page	Mechanisms Wheels and Axles Prior learning - Assembled vehicles with moving wheels using construction kits. - Explored moving vehicles through play. - Gained some experience of designing, making and evaluating products for a specified user and purpose. - Developed some cutting, joining and finishing skills with card. Designing - Generate initial ideas and simple design criteria through talking and using own experiences. - Develop and communicate ideas through drawings and mock-ups. Making - Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and	Food Preparing fruit/Vegetables (Including cooking and nutrition requirements for KS1). A Healthy Mixed Salad Prior Learning Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. - Experience of cutting soft fruit and vegetables using appropriate utensils. Designing - Design appealing products for a particular user based on simple design criteria. - Generate initial ideas and design criteria through investigating a variety of fruit and vegetables. - Communicate these ideas through talk and drawings. Making - Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely. - Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen	Textiles Templates and joining techniques Prior learning - Explored and used different fabrics. - Cut and joined fabrics with simple techniques. - Thought about the user and purpose of products. Designing - Design a functional and appealing product for a chosen user and purpose based on simple design criteria. - Generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology. Making - Select from and use a range of tools and equipment to perform practical tasks

	finishing. • Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics. <u>Evaluating</u> • Explore and evaluate a range of products with wheels and axles. • Evaluate their ideas throughout and their products against original criteria.	product. <u>Evaluating</u> • Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences. • Evaluate ideas and finished products against design criteria, including intended user and purpose.	such as marking out, cutting, joining and finishing. • Select from and use textiles according to their characteristics. <u>Evaluating</u> • Explore and evaluate a range of existing textile products relevant to the project being undertaken. • Evaluate their ideas throughout and their final products against original design criteria
	Autumn Term	Spring Term	Summer Term
Year 3 DT Projects on a Page	<u>Structures</u> Shell structures (including computer-aided design). <u>Prior learning</u> • Experience of using different joining, cutting and finishing techniques with paper and card. • A basic understanding of 2-D and 3-D shapes in mathematics and the physical properties and everyday uses of materials in science. • Familiarity with general purpose software that can be used to draw accurate shapes, such as Microsoft Word, or simple computeraided design (CAD), such as Techsoft Primary. <u>Designing</u> • Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and the functional and aesthetic purposes of the product.	<u>Food</u> Healthy and varied diet (including cooking and nutrition requirements for KS2) <u>Wrap/Sandwich</u> <u>Prior learning</u> • Know some ways to prepare ingredients safely and hygienically. • Have some basic knowledge and understanding about healthy eating and The Eatwell Guide. • Have used some equipment and utensils and prepared and combined ingredients to make a product. <u>Designing</u> • Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. • Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and	<u>Textiles</u> 2D shape to 3D product <u>Prior learning</u> • Have joined fabric in simple ways by gluing and stitching. • Have used simple patterns and templates for marking out. • Have evaluated a range of textile products. <u>Designing</u> • Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. • Produce annotated sketches, prototypes, final product sketches and pattern pieces <u>Making</u>

	• Develop ideas through the analysis of existing shell structures and use computer-aided design to model and communicate ideas. <u>Making</u> • Plan the order of the main stages of making. • Select and use appropriate tools and software to measure, mark out, cut, score, shape and assemble with some accuracy. • Explain their choice of materials according to functional properties and aesthetic qualities. • Use computer-generated finishing techniques suitable for the product they are creating. <u>Evaluating</u> • Investigate and evaluate a range of shell structures including the materials, components and techniques that have been used. • Test and evaluate their own products against design criteria and the intended user and purpose.	communicate ideas. <u>Making</u> • Plan the main stages of a recipe, listing ingredients, utensils and equipment. • Select and use appropriate utensils and equipment to prepare and combine ingredients. • Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics. <u>Evaluating</u> • Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. • Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.	• Plan the main stages of making. • Select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing. • Select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern <u>Evaluating</u> • Investigate a range of 3-D textile products relevant to the project. • Test their product against the original design criteria and with the intended user. • Take into account others' views. • Understand how a key event/individual has influenced the development of the chosen product and/or fabric.
	Autumn Term	Spring Term	Summer Term

Year 4 DT Projects on a Page	<u>Mechanical Systems</u> Levers and Linkages <u>Prior learning</u> • Explored and used mechanisms such as flaps, sliders and levers. • Gained experience of basic cutting, joining and finishing techniques with paper and card. <u>Designing</u> • Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user. • Use annotated sketches and prototypes to develop, model and communicate ideas. <u>Making</u> • Order the main stages of making. • Select from and use appropriate tools with some accuracy to cut, shape and join paper and card. • Select from and use finishing techniques suitable for the product they are creating. <u>Evaluating</u> • Investigate and analyse books and, where available, other products with lever and linkage mechanisms. • Evaluate their own products and ideas against criteria and user needs, as they design and make	<u>Electrical Systems</u> Simple circuits and switches (including programming and control) <u>Prior learning</u> • Constructed a simple series electrical circuit in science, using bulbs, switches and buzzers. • Cut and joined a variety of construction materials, such as wood, card, plastic, reclaimed materials and glue. <u>Designing</u> • Gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups. • Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, crosssectional and exploded diagrams. <u>Making</u> • Order the main stages of making. • Select from and use tools and equipment to cut, shape, join and finish with some accuracy. • Select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities. <u>Evaluating</u> • Investigate and analyse a range of existing battery-powered products. • Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.	<u>Food</u> Healthy and varied diet (including cooking and nutrition requirements for KS2) Pitta pizza Pockets <u>Prior learning</u> • Know some ways to prepare ingredients safely and hygienically. • Have some basic knowledge and understanding about healthy eating and The Eatwell Guide. • Have used some equipment and utensils and prepared and combined ingredients to make a product. <u>Designing</u> • Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. • Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. <u>Making</u> • Plan the main stages of a recipe, listing ingredients, utensils and equipment. • Select and use appropriate utensils and equipment to prepare and combine ingredients.
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	Autumn Term	Spring Term	Summer Term
Year 5 DT Projects on a Page	<u>Structures</u> Frame structures <u>Prior learning</u> • Experience of using measuring, marking out, cutting, joining, shaping and finishing techniques with construction materials. • Basic understanding of what structures are and how they can be made stronger, stiffer and more stable. <u>Designing</u> • Carry out research into user needs and existing products, using surveys, interviews, questionnaires and web-based resources. • Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost. • Generate, develop and model innovative ideas, through discussion, prototypes and	<u>Food</u> Celebrating culture and seasonality <u>A savoury or bread product</u> <u>Prior learning</u> • Have knowledge and understanding about food hygiene, nutrition, healthy eating and a varied diet. • Be able to use appropriate equipment and utensils, and apply a range of techniques for measuring out, preparing and combining ingredients. <u>Designing</u> • Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. • Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose.	<u>Electrical Systems</u> More complex switches and circuits (including programming, monitoring and control). <u>Prior learning</u> • Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product. • Initial experience of using computer control software and an interface box or a standalone box, e.g. writing and modifying a program to make a light flash on and off. <u>Designing</u> • Use research to develop a design specification for a functional product that responds automatically to changes in the environment. Take account of constraints

	annotated sketches. <u>Making</u> • Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used. • Competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks. • Use finishing and decorative techniques suitable for the product they are designing and making. <u>Evaluating</u> • Investigate and evaluate a range of existing frame structures. • Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. • Research key events and individuals relevant to frame structures.	• Use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. <u>Making</u> • Write a step-by-step recipe, including a list of ingredients, equipment and utensils • Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • Make, decorate and present the food product appropriately for the intended user and purpose. <u>Evaluating</u> • Carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams. • Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. • Understand how key chefs have influenced eating habits to promote varied and healthy diets.	including time, resources and cost. • Generate and develop innovative ideas and share and clarify these through discussion. • Communicate ideas through annotated sketches, pictorial representations of electrical circuits or circuit diagrams. <u>Making</u> • Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. • Competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product. • Create and modify a computer control program to enable an electrical product to work automatically in response to changes in the environment. <u>Evaluating</u> • Continually evaluate and modify the working features of the product to match the initial design specification. • Test the system to demonstrate its effectiveness for the intended user and purpose. • Investigate famous inventors who developed ground-breaking electrical systems and components
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	Autumn Term	Spring Term	Summer Term
Year 6 DT Projects on a Page	<u>Textiles</u> Combining different fabric shapes (including computer – aided design) <u>Prior learning</u> • Experience of basic stitching, joining textiles and finishing techniques. • Experience of making and using simple pattern pieces. <u>Designing</u> • Generate innovative ideas by carrying out research including surveys, interviews and questionnaires. • Develop, model and communicate ideas through talking, drawing, templates, mockups and prototypes and, where appropriate, computer-aided design. • Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. <u>Making</u> • Produce detailed lists of equipment and fabrics relevant to their tasks. • Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost.	<u>Mechanical Systems</u> Pulleys or gears <u>Prior learning</u> • Experience of axles, axle holders and wheels that are fixed or free moving. • Basic understanding of electrical circuits, simple switches and components. • Experience of cutting and joining techniques with a range of materials including card, plastic and wood. • An understanding of how to strengthen and stiffen structures. <u>Designing</u> • Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources. • Develop a simple design specification to guide their thinking. • Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. <u>Making</u> • Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. <u>Evaluating</u> • Compare the final product to the original design specification.	<u>Food</u> Celebrating culture and seasonality A seasonal soup or Curry <u>Prior learning</u> • Have knowledge and understanding about food hygiene, nutrition, healthy eating and a varied diet. • Be able to use appropriate equipment and utensils, and apply a range of techniques for measuring out, preparing and combining ingredients. <u>Designing</u> • Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. • Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. • Use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. <u>Making</u>

	<u>Evaluating</u> • Investigate and analyse textile products linked to their final product. • Compare the final product to the original design specification. • Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work.	• Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work. • Investigate famous manufacturing and engineering companies relevant to the project	• Write a step-by-step recipe, including a list of ingredients, equipment and utensils • Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • Make, decorate and present the food product appropriately for the intended user and purpose. <u>Evaluating</u> • Carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/ charts such as star diagrams. • Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. • Understand how key chefs have influenced eating habits to promote varied and healthy diets
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