



DT AT HOLBROOK

Curriculum Progression

DESIGNING

Year Group	EYFS	Years 1 and 2	Years 3, 4 and 5	Year 6
Understanding contexts, users and purposes	Learning experiences: Design creations in the create area, explaining what they want to make and why.	Across KS1 pupils should: - work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment - state what products they are designing and making - say whether their products are for themselves or other users - describe what their products are for - say how their products will work - say how they will make their products suitable for their intended users - use simple design criteria to help develop their ideas	Across KS2, pupils should: - work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment - describe the purpose of their products - indicate the design features of their products that will appeal to intended users - explain how particular parts of their products work	
			In years 3,4 and 5 pupils should also: - gather information about the needs and wants of particular individuals and groups - develop their own design criteria and use these to inform their ideas	In Year 6, pupils should also: - carry out research, using surveys, interviews, questionnaires and web-based resources - identify the needs, wants, preferences and values of particular individuals and groups - develop a simple design specification to guide their thinking
Generating, developing, modelling and communicating ideas	Learning experiences: - be confident to speak about own ideas (40-60) - Listens to and responds to ideas expressed by others (40-60) - Uses talk to organise, sequence and clarify ideas, thinking, feelings and events (40-60)	Across KS1 pupils should: - generate ideas by drawing on their own experiences - use knowledge of existing products to help come up with ideas - develop and communicate ideas by talking and drawing - model ideas by exploring materials, components and construction kits and by making templates and mock ups - use information and communication technology, where appropriate, to develop and communicate their ideas	Across KS2 pupils should: - share and clarify ideas through discussion - model their ideas using prototypes and pattern pieces - use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas - use computer-aided design to develop and communicate their ideas	
			In years 3,4 and 5 pupils should also: - generate realistic ideas, focusing on the needs of the user - make design decisions that take account of the availability of resources	In Year 6, pupils should also: - generate innovative ideas, drawing on research - make design decisions, taking account of constraints such as time, resources and cost
Checkpoints	By the end of EYFS, pupils should: ELG: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	National Curriculum: By the end of KS1, pupils should: - 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	National Curriculum: By the end of KS2, pupils should: - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	

MAKING

Year Group	EYFS	Years 1 and 2	Years 3, 4 and 5	Year 6
Planning	Learning experiences: - Design creations in the create area, explaining what they want to make and why. - Can select and use resources with help (30-50) - Understands use of objects (30-50)	Across KS1 pupils should: - plan by suggesting what to do next - select from a range of tools and equipment, explaining their choices - select from a range of materials and components according to their characteristics	Across KS2, pupils should: - select tools and equipment suitable for the task - explain their choice of tools and equipment in relation to the skills and techniques they will be using - select materials and components suitable for the task - explain their choice of materials and components according to functional properties and aesthetic qualities	
			In years 3,4 and 5 pupils should also: order the main stages of making	In Year 6, pupils should also: - produce appropriate lists of tools, equipment and materials that they need - formulate step-by-step plans as a guide to making
Practical skills and techniques	Learning experiences: - Uses simple tools to effect changes to materials (40-60) - Handles tools, objects, construction and malleable materials safely and with increasing control (40-60)	Across KS1 pupils should: - follow procedures for safety and hygiene - use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components - measure, mark out, cut and shape materials and components - assemble, join and combine materials and components - use finishing techniques, including those from art and design	Across KS2 pupils should: - follow procedures for safety and hygiene - use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components	
			In years 3,4 and 5 pupils should also: - measure, mark out, cut and shape materials and components with some accuracy - assemble, join and combine materials and components with some accuracy - apply a range of finishing techniques, including those from art and design, with some accuracy	In Year 6, pupils should also: - accurately measure, mark out, cut and shape materials and components - accurately assemble, join and combine materials and components - accurately apply a range of finishing techniques, including those from art and design - use techniques that involve a number of steps - demonstrate resourcefulness when tackling practical problems
Checkpoints	By the end of EYFS, pupils should: ELG: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	National Curriculum: By the end of KS1, pupils should: - 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	National Curriculum: By the end of KS2, pupils should: - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately - 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	

EVALUATING

Year Group	EYFS	Years 1 and 2	Years 3, 4 and 5	Year 6
Own ideas and products	Learning experiences • Begin to understand 'how' and 'why' questions (30-50) • Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world (40-60) • Talks about why things happen and how things work (40-60)	Across KS1 pupils should: • talk about their design ideas and what they are making • make simple judgements about their products and ideas against design criteria • suggest how their products could be improved	Across KS2, pupils should: • identify the strengths and areas for development in their ideas and products • consider the views of others, including intended users, to improve their work	
Existing products		Across KS1 pupils should: • what products are • who products are for • what products are for • how products work • how products are used • where products might be used • what materials products are made from • what they like and dislike about products	Across KS2 pupils should: • how well products have been designed • how well products have been made • why materials have been chosen • what methods of construction have been used • how well products work • how well products achieve their purposes • how well products meet user needs and wants	In years 3,4 and 5 pupils should also: • refer to their design criteria as they design and make • use their design criteria to evaluate their completed products
Key events and individuals			Across KS2 pupils should: • about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products	In Year 6, pupils should also: • critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make • evaluate their ideas and products against their original design specification
Checkpoints	By the end of EYFS, pupils should: • ELG: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	National Curriculum: By the end of KS1, pupils should: • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria	National Curriculum: By the end of KS2, pupils should: • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world	

TECHNICAL KNOWLEDGE

Year Group	EYFS	Years 1 and 2	Years 3, 4 and 5	Year 6
Making products work	Learning experiences • Manipulates materials to achieve a planned effect (40- 60) • Constructs with a purpose in mind, using a variety of resources (40-60) • Uses simple tools and techniques competently and appropriately (40-60) • Selects appropriate resources and adapts work where necessary (40-60) • Selects tools and techniques needed to shape, assemble and join materials they are using (40-60)	Across KS1 pupils should: • about the simple working characteristics of materials and components • about the movement of simple mechanisms such as levers, sliders, wheels and axles • how freestanding structures can be made stronger, stiffer and more stable • that a 3-D textiles product can be assembled from two identical fabric shapes • that food ingredients should be combined according to their sensory characteristics • the correct technical vocabulary for the projects they are undertaking	Across KS2, pupils should: • how to use learning from science to help design and make products that work • how to use learning from mathematics to help design and make products that work • that materials have both functional properties and aesthetic qualities • that materials can be combined and mixed to create more useful characteristics • that mechanical and electrical systems have an input, process and output • the correct technical vocabulary for the projects they are undertaking	
			In years 3,4 and 5 pupils should also: • how mechanical systems such as levers and linkages or pneumatic systems create movement • how simple electrical circuits and components can be used to create functional products • how to program a computer to control their products • how to make strong, stiff shell structures • that a single fabric shape can be used to make a 3D textiles product • that food ingredients can be fresh, pre-cooked and processed	In Year 6, pupils should also: • how mechanical systems such as cams or pulleys or gears create movement • how more complex electrical circuits and components can be used to create functional products • how to program a computer to monitor changes in the environment and control their products • how to reinforce and strengthen a 3D framework • that a 3D textiles product can be made from a combination of fabric shapes • that a recipe can be adapted by adding or substituting one or more ingredients
Checkpoints	By the end of EYFS, pupils should: • ELG: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	National Curriculum: By the end of KS1, pupils should: • 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.	National Curriculum: By the end of KS2, pupils should: • 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] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products.	

COOKING AND NUTRITION

Year Group	EYFS	Years 1 and 2	Years 3, 4 and 5	Year 6
Where food comes from	Learning experiences: - Can talk about some of the things they have observed such as plants, animals, natural and found objects (30- 50) - Developing an understanding of growth, decay and changes over time (30-50) - Shows care and concerns for living things and the environment (30-50)	Across KS1 pupils should: - that all food comes from plants or animals - that food has to be farmed, grown elsewhere (e.g. home) or caught	Across KS2, pupils should: that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world	
				In Year 6, pupils should also: - that seasons may affect the food available - how food is processed into ingredients that can be eaten or used in cooking
Food preparation, cooking and nutrition	Learning experiences: - Eats a healthy range of foodstuffs and understands need for variety in food (40- 60) - Shows some understanding that good practices with regard to eating and hygiene can contribute to good health (40-60)	Across KS1 pupils should: - how to name and sort foods into the five groups in The eatwell plate - that everyone should eat at least five portions of fruit and vegetables every day - how to prepare simple dishes safely and hygienically, without using a heat source - how to use techniques such as cutting, peeling and grating	Across KS2 pupils should: - how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source - how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking	
			In years 3,4 and 5 pupils should also: - that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate - that to be active and healthy, food and drink are needed to provide energy for the body	In Year 6, pupils should also: - that recipes can be adapted to change the appearance, taste, texture and aroma - that different food and drink contain different substances – nutrients, water and fibre – that are needed for health
Checkpoints	By the end of EYFS, pupils should: ELG: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	National Curriculum: By the end of KS1, pupils should: - use the basic principles of a healthy and varied diet to prepare dishes - understand where food comes from.	National Curriculum: By the end of KS2, pupils should: - understand and apply the principles of a healthy and varied diet - 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.	