

Design and Technology Whole School Progression of Skills

Providing a first class education for our children is our core purpose. Within the primary phase we seek to lay the foundations of knowledge, skills and attitudes that prepare children extremely well for their next stage of education so that transition from one stage to another is natural, seamless and timely. We seek to develop in children a life-long love of learning and the underlying skills to enable them to succeed. Our curriculum aims to go beyond the merely academic, but also into the behaviours and attitudes we wish our children to demonstrate as citizens of the world.

At CHANGE Schools Partnership we believe that:

- The curriculum in our schools is everything that our pupils experience including the school and classroom environment, their interactions with staff and pupils and the quality of the daily pedagogy used in the delivery of a course of study.
- The content of our curriculum should build 21st century skills such as collaboration, critical thinking and communication, and will continue to evolve responding to our ever-changing world.
- We have a moral duty to our most vulnerable pupils for whom we know education is the best route for a successful future.
- All children are capable of excellence through becoming reflective and independent learners within an environment that exposes them to great outcomes.
- We seek to promote children's intrinsic motivation by giving them ownership over the direction of their learning.
- Children should love coming to school each day where their time will be filled with fun, purposeful and challenging learning.
- Children deserve learning experiences that will stick with them for a lifetime.

Purpose of study (from the National Curriculum)

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Aims (from the National Curriculum)

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

Design and Technology Whole School Progression of Skills

Subject Content	EYFS (if appropriate)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Developing, planning and communicating ideas.	Uses talk to organise, sequence and clarify thinking and ideas.	Draw on their own experience to help generate ideas.	Generate ideas by drawing on their own and other people's experiences.	Generate ideas for an item, considering its purpose and the user/s.	Generate ideas, considering the purposes for which they are designing.	Generate ideas through brainstorming and identify a purpose for their product.	Communicate their ideas through detailed labelled drawings.
	Constructs with a purpose in mind, using a variety of resources.	Suggest ideas and explain what they are going to do.	Make simple drawings and label parts.	Make drawings with labels when designing products and identify criteria that can be used for their own designs.	Make labelled drawings from different views showing specific features.	Draw up a specification for their design.	Develop a design specification.
	Model their ideas in card and paper.	Develop their design ideas through discussion, observation, drawing and modelling.	Explore, develop and communicate design proposals by modelling ideas.	Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail.	Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail.	Plan the order of their work, choosing appropriate materials, tools and techniques.	
	Identify a target group for what they intend to design and make. Develop their design ideas applying findings from their earlier research.	Identify a purpose for what they intend to design and make. Identify simple design criteria.	Identify a purpose and plan the order of their work before starting. Establish criteria for a successful product.	Evaluate products and identify criteria that can be used for their own designs.	Use results of investigations, information sources, including ICT when developing design ideas.	Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways.	

Design and Technology Whole School Progression of Skills

Subject Content	EYFS (if appropriate)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working with tools, equipment, materials and components to make quality products	Understands that different media can be combined to create new effects.	Make their design using appropriate techniques.	Begin to select tools and materials; use vocab' to name and describe them.	Select tools and techniques appropriate for making their product.	Select and explain their choice of tools and equipment in relation to the skills and techniques they will be using.	Produce list of appropriate tools, equipment and materials. Explain their choice of materials and components according to functional properties and aesthetic qualities.	Select tools and explain their choice of materials and components according to functional properties and aesthetic qualities. Formulate step-by-step plans as a guide to making.
	Manipulates materials to achieve a planned effect.	With help measure, mark out, cut and shape a range of materials.	Measure, cut and score with some accuracy.	Measure, mark out, cut, score and assemble components with more accuracy.	Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.	Measure and mark out accurately.	Assemble components make working models.
	Uses simple tools and techniques competently and appropriately.	Use tools eg scissors and a hole punch safely.	Use hand tools safely and appropriately.	Work safely and accurately with a range of simple tools.	Work safely and accurately with a range of simple tools.	Use previously learnt skills in using different tools and equipment safely and accurately.	Use tools safely and accurately.
	Selects tools and techniques needed to shape, assemble and join materials they are using.	Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape.	Assemble, join and combine materials in order to make a product.	Join and combine materials and components accurately.	Join and combine materials and components accurately in temporary and permanent ways.	Cut and join with accuracy to ensure a good-quality finish to the product.	Construct products using permanent joining techniques.

Design and Technology Whole School Progression of Skills

Subject Content	EYFS (if appropriate)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			Cut, shape and join fabric to make a simple garment. Use basic sewing techniques.	Measure, tape or pin, cut and join fabric with some accuracy.	Measure, tape or pin, cut and join fabric with some accuracy.	Sew using a range of different stitches, weave and knit.	Pin, sew and stitch materials together to create a product.
	Selects appropriate resources and adapts work where necessary.	Use simple finishing techniques to improve the appearance of their product.	Choose and use appropriate finishing techniques.	Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.	Use simple graphical communication techniques to improve their product.	Achieve a quality product.	Achieve a quality product.
				Think about their ideas as they make progress and be willing change things if this helps to improve their work.	Think about their ideas as they make progress and be willing change things if this helps to improve their work.	Make modifications to improve a product as they go along.	Make modifications to improve a product as they go along.

Design and Technology Whole School Progression of Skills

Subject Content	EYFS (if appropriate)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Food Technology- <i>Working with tools, equipment, materials and components to make quality products</i>		Select and use appropriate fruit and vegetables, processes and tools.	Measure or weigh using measuring cups or electronic scales.	Prepare ingredients using appropriate utensils. Measure ingredients using appropriate methods.	Prepare ingredients using a range of utensils. Measure ingredients accurately.	Demonstrate a range of baking and cooking techniques. Weigh and measure accurately (time, dry ingredients, liquids) and calculate ratios of ingredients to scale up or down from a recipe.	Select appropriate utensils to prepare ingredients.
		Assemble ingredients.	Assemble or cook ingredients.	Follow a simple recipe.	Follow a simple recipe and discuss how it could be adapted.	Follow a recipe and understands that recipes can be adapted to change the appearance, taste, texture and aroma	Create and refine recipes including ingredients, methods, cooking times and temperatures.
		Identify that all food comes from plants or animals.	Identify that food has to be farmed, grown elsewhere or caught.	Identify that food is grown, reared and caught in the UK, Europe and the wider world.	Identify that seasons may affect the food available.	Identify how food is processed into ingredients that can be eaten or used in cooking.	Identify that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.
		Use basic food handling, hygienic practices and personal hygiene.	Follow safe procedures for food safety and hygiene.	Demonstrate hygienic food preparation and storage.	Demonstrate hygienic food preparation and storage.	Apply the rules for basic food hygiene, including storage and handling, and other safe practices e.g. hazards relating to the use of ovens	Apply the rules for basic food hygiene, including storage and handling, and other safe practices e.g. hazards relating to the use of ovens

Design and Technology Whole School Progression of Skills

Subject Content	EYFS (if appropriate)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Evaluating processes and products	Selects appropriate resources and adapts work where necessary.	Evaluate their product by discussing how well it works in relation to the purpose.	Evaluate against their design criteria.	Evaluate their product against original design criteria e.g. how well it meets its intended purpose.	Evaluate their work both during and at the end of the assignment.	Evaluate their product against their original design specification and suggest improvements.	Evaluate against their original criteria and suggest ways that their product could be improved.
		Evaluate their product by asking questions about what they have made and how they have gone about it	Evaluate their products as they are developed, identifying strengths and possible changes they might make. Talk about their ideas, saying what they like and dislike about them.	Disassemble and evaluate familiar products.	Evaluate their products carrying out appropriate tests.	Evaluate it personally and seek evaluation from others.	Evaluate their products, identifying strengths and areas for development, and developing appropriate tests. Record their evaluations using drawings with labels.