Brookside School - Primary Progression Map for D&T: Designing Skills

	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Contexts	Work within different contexts, such as story-based, school and home.	Work confidently within a wide range of contexts, such as story-based, home, school, gardens, playgrounds, local community, industry and the wider environment.		Work confidently within a wider range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment.			
Understanding uses and purposes	• Use their senses to explore objects and describe them in their own words. • Talk about their characteristics.	• State what products they are designing and making. • Say who and what their products are for. • Talk about how their products will work. • Use simple design criteria, with support.	• Describe what products they are designing and making. • Describe who and what their products are for. • Talk about how their products will work and be suitable for their intended users. • Use simple design criteria to help develop their ideas	• Identify the intended users, their needs and purpose of their products. • Explain how their overall product and particular design features will function and meet the purpose and /wants of the intended users. • Develop their own simple design criteria and use this to inform their ideas.	• Identify the intended users and gather information about their needs and wants. • Identify the purpose of their products and explain, using some technical knowledge and vocabulary, how the overall product and particular parts will function, be fit for purpose and appeal to the intended users. • Develop their own design criteria and use this to inform their ideas.	• Identify the intended users and use market research to gather and analyse information about their needs, wants and preferences. • Describe the purpose of their products and explain, using technical knowledge and vocabulary, how particular parts and design features will function, be fit for purpose and appeal to the intended users. • Develop their own design criteria and	• Identify the intended users and use different types of market research, including surveys, interviews, questionnaires and web-based resources to gather and analyse information about their needs, wants, preferences and values. • Describe the purpose of their products and give detailed explanations, using technical knowledge and vocabulary, about how it

						simple design specification to guide their thinking and inform their ideas.	and particular parts and design features will function, be fit for purpose and appeal to the intended users. • Develop their own design criteria and more detailed design specification to guide their thinking and inform their ideas.
Generating, developing, modelling and communicating ideas	• Use their own ideas, thoughts and feelings to make something. • Develop their own ideas through selecting and using materials and working on processes that interest them.	• Use their own experiences, knowledge of existing products and ICT, where appropriate, to generate ideas. • Use discussion, drawings and ICT where appropriate, to communicate ideas. • Explore materials, components and construction kits and make templates and mock-ups to	• Use their own experiences, knowledge of existing products and ICT where appropriate, to generate a range of ideas. • Use discussion, drawings and ICT where appropriate, to communicate and develop ideas. • Explore materials, components and construction kits and make	• Generate and communicate realistic ideas through discussion and annotated sketches, using ICT where appropriate. • Ideas focus on the needs of the intended users. • With support, use computer-aided design (CAD) software and make mock-ups, prototypes and pattern pieces to test	• Generate and communicate realistic ideas through discussion, annotated and final product sketches, using ICT where appropriate. • Ideas focus on the needs and wants of the intended users. • Use CAD software and make mock-ups, prototypes and pattern pieces to test and develop ideas.	• Generate and communicate innovative ideas through discussion, research, ICT, annotated and final product sketches and cross-sectional drawings. • Use CAD software and make mock-ups, prototypes and pattern pieces with increasing accuracy to test and develop ideas.	• Generate and communicate innovative ideas through discussion, ICT, analysis of research, annotated and final product sketches, cross-sectional drawings and exploded diagrams. • Competently use CAD software and make accurate mock-ups, prototypes and pattern pieces to test, develop

		model and test ideas with support.	templates and mock-ups to model, test and develop ideas.	and develop ideas.	• Make design decisions that take account of availability of resources.	• Make design decisions, taking account of constraints, such as resources and time.	and modify ideas. • Make design decisions, taking account of constraints, such as time, resources and cost.

Brookside School - Primary Progression Map for D&T: Making Skills

	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Planning	• Explain what they are making and talk about how they plan to carry out their work.	• Select from a range of tools and equipment. • Select from a range of materials and components according to their characteristics. • Explain how they plan to make their product, suggesting what to do next. • Listen to and consider other people's suggestions.	• Select from a wide range of tools and equipment and explain their choices. • Select from a wide range materials and components according to their characteristics. Explain their choices. • Discuss the main stages of making. • Make simple plans.	• Select from a wider range of tools and equipment and explain their choices. • Select from a wider range of materials and components according to their functional properties and aesthetic qualities. Explain their choices. • Discuss and order the main stages of making. • Make more detailed plans.	• Select from a wider range of tools and equipment to perform practical tasks with some accuracy. Explain the suitability of their choices. • Select from a wider range of materials and components according to their functional properties and aesthetic qualities. Explain the suitability of their choices. • Discuss and order all stages of making. • Make detailed plans.	• Select from a wider range of tools and equipment to perform practical tasks with increasing accuracy. Explain their choices in relation to the skills and techniques they will be using. • Consider the function and aesthetic qualities of a wider range of materials and components. Select those most suitable for the task and explain their choices. • Make detailed, step-by-step plans, including appropriate lists of tools, equipment and materials.	• Select from a wider range of tools and equipment to perform practical tasks with accuracy. Explain in details their choices in relation to the skills and techniques they will be using. • Consider the function, and aesthetic qualities of a wider range of materials and components. Select those most suitable for the task. Give detailed explanations for their choices. • Make more detailed, step-by-step plans, including detailed lists of tools, equipment and materials.

Practical skills and techniques	• Safely use and explore materials (such as paper, card, glue, paper fasteners, masking tape), tools (such as scissors, hole punches, staplers, woodworking tools) and simple finishing techniques (such as painting), experimenting with colour, design, texture, form and function. • Listen to instructions and follow them accurately, asking for clarification if needed. • Select and use technology for particular purposes. For example, using a mouse to draw and a camera to take a picture.	• Use a range of tools and equipment to perform practical tasks safely on a range of materials and components. • Cut, shape, assemble and join materials and components. • Use simple finishing techniques. For example, colouring with felt tipped pens, collage.	• Use a wide range of tools and equipment to safely perform practical tasks on a wide range of materials and components. • Measure, mark out, cut, and shape materials and components. • Join and combine materials and components. • Use finishing techniques, including those from art and design.	• Follow procedures for safety and hygiene. • Use a wider range of tools and equipment to perform practical tasks on a wider range of materials and components. • Use CAD software with support. • Measure, mark out, score, cut and shape materials and components. • Assemble, join and combine materials and components. • Apply a range of finishing techniques, including computer-generated.	• Follow and explain procedures for safety and hygiene. • Use a wider range of tools and equipment to perform practical tasks on a wider range of materials and components with some accuracy. • Use CAD software. • Measure, mark out, score, cut and shape materials and components with some accuracy. • Assemble, join and combine materials and components with some accuracy. • Apply a wider range of finishing technique, including computer-	• Apply and explain procedures for safety and hygiene with increasing independence. • Use and combine a wider range of tools and equipment to perform practical tasks on a wider range of materials and components with increasing accuracy. • Use CAD software with increasing competence. • Measure, mark out, score, cut and shape materials and components with increasing accuracy. • Assemble, join and combine materials and components with increasing accuracy. • Apply a wider range of	• Independently apply and explain procedures for safety and hygiene. • Accurately use and combine a wider range of tools and equipment to perform multi-step practical tasks on a wider range of materials and components. • Use CAD software competently. • Accurately measure, mark out, score, cut and shape materials and components. • Accurately assemble, join and combine materials and components. • Accurately apply a wider range of finishing techniques.

					generated, with some accuracy.	finishing techniques with increasing accuracy.	• Demonstrate resourcefulness when tackling practical tasks.

Brookside School - Primary Progression Map for D&T: Evaluating Skills

	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Own ideas and products	• Talk about what they might change if they were to repeat the task. • Share their creations, explaining the process they have used.	• Talk about their design ideas and what they are making. • Make simple judgements about their ideas and completed products against simple design criteria, with support. • Suggest how their products could be improved.	• Describe their design ideas and explain what they are making. • Make simple judgements about their ideas and completed products against simple design criteria. • Suggest and explain how their products could be improved.	• Refer to their own simple design criteria as they design and make. • Evaluate their ideas and completed products against their own simple design criteria. • Identify some strengths and development areas in their ideas and completed products.	• Refer to their own design criteria as they design and make. • Evaluate their ideas and completed products against their own design criteria. • Identify the strengths and development areas in their ideas and completed products. • Consider the views of others to improve their work.	• Evaluate the quality of the design, manufacture and fitness for purpose as they design and make. • Evaluate their ideas and completed products against their design criteria and specification, identifying strengths and development areas. • Consider the views of others throughout the designing, testing, manufacture and evaluation processes to improve their work.	• Critically evaluate the quality of the design, manufacture, fitness for purpose and innovation as they design and make. • Critically evaluate their ideas and completed products against their design criteria and specification, identifying strengths and development areas. • Consider the view of others, including the intended users, throughout the designing, testing, manufacture

							and evaluation processes to improve their work.
Existing products	• Use their senses to explore and compare objects and describe them in their own words. For example, how are they the same? How are they different?	• Explore and evaluate existing products. • Investigate: ○ What are the products? ○ Who are they for? ○ What are they for? ○ How do they work?	• Explore and evaluate a range of existing products. • Investigate: ○ How are they used? ○ Where are they used? ○ What materials are they made from? ○ What do you like and dislike about them?	• Investigate and analyse existing products: ○ How well have products been designed and made? ○ Why have those materials been chosen? ○ What methods of construction have been used? ○ How well do they work?	• Investigate and analyse a range of existing products: ○ Who designed and made the products? ○ Where were the products designed and made? ○ When were the products designed and made? ○ Can the products be recycled or reused?	• Investigate and analyse a wide range of existing products: ○ What different materials and methods of construction have been used? ○ How well do they work, achieve their purpose and meet user needs and wants? ○ How much do products cost to make?	• Investigate and analyse a wider range of products: ○ How have those different materials and construction methods been combined? ○ How innovative are the products? ○ How sustainable are the materials in the products? ○ What impact do the products have beyond their

							intended purpose?

Brookside School - Primary Progression Map for D&T: Technical Knowledge

	EYFS	Y1/2	Y3/4	Y5/6
Materials and components	• Know about similarities and differences in relation to objects and materials. • Learn how everyday objects work by dismantling them.	• Know simple working characteristics of materials and components.	• Know that materials have both functional properties and aesthetic qualities, and that they can be combined to create more useful characteristics. • Know how simple electrical circuits and components can be used to create functional products. For example, series circuits incorporating switches and bulbs. • Know that an electrical system has an input, process and output. • Know how to program a computer to control products containing simple electrical systems. • Know about some key events and inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products and helped shape the world.	• Know that materials can be combined to enhance their functional properties and aesthetic qualities and create more useful characteristics. • Know how more complex electrical circuits and components can be used to create functional products. For example, series or parallel circuits incorporating switches, bulbs, buzzers and motors. • Know how to program a computer to monitor changes in their environment and control their products. • Know about a range of key events, inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products and helped shape the world.

Textiles	• Explore and use different fabrics.	• Know that a simple 3-D textiles product can be made using a template to create 2 identical shapes. • Know how to join fabrics by threading own needle and using different techniques. For example, running stitch, over stitch, gluing and stapling. • Explore different finishing techniques. For example, fabric paint/pens, stitching buttons and ribbons, gluing sequins.	• Know that a single fabric shape can be used to make a 3D textiles product. • Understand the need for patterns and seam allowances. • Know how to securely join pieces of fabric together, improving the appearance and consistency of stitches. • Know how to start and finish off a row of stitches. • Explore fastenings and different finishing techniques. For example, applique and embroidery.	• Know that a 3-D textiles product can be made from a combination of accurately made pattern pieces, fabric shapes and fabrics. • Know how to join and decorate fabrics using a range of stitches. For example, stem stitch, satin stitch, chain stitch and lazy daisy stitch. • Explore different finishing techniques. For example, computer designed prints that can be applied to textiles using iron transfer paper.
Structures	• Build walls, towers and simple frameworks using construction kits.	• Build freestanding structures, exploring how they can be made stronger, stiffer and more stable. For example, using folding and shaping.	• Explore and apply their understanding of how to make strong, stiff shell structures. For example, by corrugating, ribbing, and laminating.	• Explore and apply their understanding of how to strengthen, stiffen and reinforce frameworks that are more complex. For example, a 3D framework using triangulation, Jinks Joints, cross beams.
Mechanisms	• Work with paper and card to make simple flaps and hinges. • Assemble moving vehicles using construction kits.	• Know that different mechanisms produce different types of movement. • Explore and use simple mechanical systems in their products. For	• Know how mechanical systems, such as levers and linkages or pneumatic systems, create movement. • Use mechanical systems to create	• Know how mechanical systems, such as cams, pulleys or gears, can be used to create and change the direction and speed of movement.

	Explore them through play.	example, levers, sliders, wheels, axels and axel holders. • Distinguish between fixed and moving axels.	movement in their products. • Know that mechanical systems have an input, process and output.	• Use mechanical systems that are more complex to create movement in their products.

Brookside School - Primary Progression Map for D&T: Cooking and nutrition

		EYFS	Y1/2	Y3/4	Y5/6
Technical Knowledge	Where food comes from	• Know that ingredients are available from different sources (shops, markets, grown at home). • Know that food can be eaten at different times and during celebrations. • Know and talk about a range of fruits and vegetables. For example, foods they like/dislike with reasons.	• Know that all food comes from plants or animals. • Know that food must be farmed, grown elsewhere (e.g. home) or caught.	• Know 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. • Know that food ingredients can be fresh, pre-cooked or processed.	• Know that seasons may affect the food available. • Know the source of different food products. • Know about the environmental impact of food and food miles. • Know how food is processed into ingredients that can be eaten or used in cooking.
	Nutrition	• Know that we need food to grow, be active and maintain health. • Know that foods can be sorted into healthy and unhealthy groups. • Begin to understand some of the basic tools, techniques and processes involved in food preparation.	• Know how to name and sort foods into the five groups in the Eatwell Guide. • Know that everyone should eat at least 5 portions of fruit and vegetables every day.	• Know that a healthy diet is made up of a variety and balance of different food and drink, as depicted in the Eatwell Guide. • Know that to be active and healthy, food and drink are needed to provide energy for the body.	• Know that different food and drink contain different substances – nutrients, water and fibre – that are needed for health. • Know how to apply the principles of a healthy diet by using a range of equipment, ingredients and techniques to prepare and cook predominantly savoury dishes, including, where appropriate, the use of a heat source.

					• Know that a recipe can be adapted by adding or substituting one or more ingredients to change the appearance, taste, texture and aroma.

	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Practical skills and techniques	• Complete basic hygiene tasks. E.g. wash hands and soft fruit and vegetables before using. • With support select and use equipment (such as rolling pins and pastry cutters),	• Follow basic food hygiene practices and instructions to control risk. • Select from and use a range of equipment, ingredients and techniques to safely and hygienically prepare	• Follow basic food hygiene practices and instructions to control risk and explain why they are important. • Select from and use a wide range equipment, ingredients and techniques to safely	• Follow food hygiene practices and instructions to control risk and explain why they are important. • Select from and use a wide range of equipment, ingredients and techniques, safely and hygienically, to prepare and cook a	• Follow food hygiene practices and instructions to control risk and explain why they are important in controlling risk. • Select from and use a wider range of equipment, ingredients and	• Follow a wide range of food hygiene practices and instructions to control risk and explain why they are important in controlling risk. • Select from and apply a wider range	• Follow a wider range of food hygiene practices and instructions to control risk and explain why they are important in controlling risk. • Select from and apply a wider range of equipment, ingredients and multi-step techniques with accuracy

	ingredients and techniques to prepare healthy food. • Techniques include stirring, spooning, mashing, sprinkling, pouring, chopping, tearing and sieving. • Experience common fruit and vegetables through sensory activities (appearance, taste, smell).	simple, healthy dishes without a heat source. • Techniques include peeling and cutting. • Measure and weigh with support.	and hygienically prepare healthy dishes without a heat source • Introduce new techniques, such as squeezing, and grating. • Follow an existing recipe. • Measure and weigh ingredients with increasing independence.	variety of predominantly savoury dishes, using a heat source where appropriate. • Introduce new techniques, such as spreading, mixing, kneading and baking. • Follow and make some adaptations to an existing recipe. • Measure and weigh independently.	techniques, safely and hygienically, to prepare ingredients and cook a variety of predominantly savoury dishes, using a heat source where appropriate. • Introduce new techniques, such as slicing and the bridge and claw technique. • Follow and make adaptations to an existing recipe. • Measure and weigh with increasing accuracy.	of equipment, ingredients and multi-step techniques, safely and hygienically, to prepare and cook a variety of predominantly savoury dishes, using a heat source where appropriate. • Adapt recipes to change appearance and taste. • Measure and weigh accurately.	to safely and hygienically prepare and cook a variety of predominantly savoury dishes, using a heat source where appropriate. • Adapt recipes to change the appearance, taste, texture and aroma. • Measure and weigh all ingredients accurately.

Brookside School - Primary Progression Map for D&T: Vocabulary

	EYFS	Y1/2	Y3/4	Y5/6
Design process	• Ideas, plan, make.	• Design, evaluate, user, purpose, design criteria, product, function, features, suitable, templates, mock-ups, model, test.	• Design brief, research, investigate, generate, develop, computer-aided design (CAD), prototype, pattern, appealing, functional, aesthetic, annotated sketch.	• Design specification, market research, functionality, cross sectional drawings, exploded diagrams, innovative, modify, analyse.
Materials and components	• Material, glass, metal, wood, plastic, paper, card. • Properties, hard, soft, heavy, light, smooth, rough.	• Components, characteristics. • Waterproof, non-waterproof, strong, weak, bend, stretch, twist, squash. • Measure, mark out, cut, shape join, finish.	• Composites, functional, aesthetic, qualities, combine, assemble, finishing techniques. • Series circuit, fault, connection, reed switch, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, input device, output device, computer program, control. • Inventors, designers, engineers, chefs, manufacturers.	• Multi-step techniques, innovation. • Complex electrical circuit, parallel circuit, buzzers, motors, write, modify, debug, program, system, monitor, microcontrollers, interface boxes, standalone boxes.
Textiles	• Wool, cotton, felt, silk, buttons, sequins, fabric paints, glue, decorate.	• Template, mark out, join, finish, threads, pins, needles, stapler, staples, running stitch, over stitch.	• Pattern pieces, fastening, zip, structure, finishing technique, strength, weakness, stiffening	• Wadding, reinforce, right side, wrong side, hem, pinking shears, iron transfer paper, computer aided

			templates, seam, seam allowance, tape, measuring tape, appliqué pieces, embroidery, printing, computer aided design (CAD).	manufacture (CAM), font, lettering, text, graphics, menu, scale, modify, repeat, copy, flip, hem.
Structures	• Build, wall, tower, weak, strong, top, bottom, underneath, side, corner, circle, triangle, square, rectangle.	• Structure, framework, base, edge, surface, thinner, thicker, corner, straight, curved, cuboid, cube, cylinder, three-dimensional (3-D) shape, vertex, edge, face, length, width.	• Shell structure, net, prism, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, stiff, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics.	• Frame structure, stiffen, strengthen, reinforce, stability, shape, join, temporary, permanent triangulation, Jinks Joints, cross beams.
Mechanisms	• Flaps, hinges. • Vehicle. • Move, movement, left, right, push, pull, up, down, forwards, backwards, in, out.	• Slider, lever, pivot, slot, bridge/guide, wheel, axle, axle holder, chassis, body, cab. • Fixed, free, moving, mechanism.	• Components, attaching, tubing, syringe, plunger, split pin, pneumatic system, control, compression, pressure, inflate, deflate, pump, seal, air-tight. • Motion, linear, rotary, oscillating, reciprocating, input movement, process, output movement, lever, linkage, pivot.	• Cam, snail cam, off-centre cam, peg cam, pear shaped cam, follower, axle, shaft, crank, handle, housing, framework, pulley, drive belt, gear, spindle, driver, follower, ratio, transmit, motor. • Rotation, mechanical system.
Cooking and nutrition	• Names of fruit and vegetables, equipment and utensils. • Techniques: stirring, spooning, mashing, mixing, washing	• Names of fruit and vegetables, equipment and utensils. • Techniques: peeling, cutting, squeezing, spreading and grating.	• Name of equipment, utensils, techniques and ingredients. For example, east, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs.	• Name of equipment, utensils, techniques and ingredients. • Techniques: combine, fold, whisk, beat, roll out, shape, crumble.

	sprinkling, pouring, chopping, tearing, sieving, squishing. • Appearance, taste, smell. • Healthy, unhealthy.	• Measure, weigh, ingredients, recipe. • Sensory vocabulary: soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard. • Flesh, skin, seed, pip, core, healthy diet, varied diet, farmed, grown, caught, portion.	• Techniques: spreading, kneading, baking, proving, rubbing in, slicing, bridge and claw. • Taste, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, savoury, heat source. • Hygienic, gluten, gluten-free, allergy, intolerance, edible, grown, reared, caught, fresh, pre-cooked, frozen, tinned, processed, seasonal, harvested. • Energy, variety, balanced diet.	• Fat, sugar, carbohydrate, protein, vitamins, nutrients, fibre, nutrition, dairy, source, seasonality, texture and aroma, adapted, substituting,