

DT skills progression

Big idea	Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Humankind	Everyday products	AOL: Exp A&D Name and explore a range of everyday products and begin to talk about how they are used. covered x 3 optional x 4	Name and explore a range of everyday products and describe how they are used. covered x 2	Explain how an everyday product could be improved. Assign	Explain how an existing product benefits the user. Assign	Investigate and identify the design features of a familiar product. covered x 2 optional	Explain how the design of a product has been influenced by the culture or society in which it was designed or made. covered x 2	Analyse how an invention or product has significantly changed or improved people's lives. covered x 2
	Staying safe	AOL: PSED AOL: PD Follow rules and instructions to keep safe. covered x 2 optional	Follow the rules to keep safe during a practical task. covered x 2 optional x 2	Work safely and hygienically in construction and cooking activities. optional x 5	Use appliances safely with adult supervision. optional x 3	Work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray. optional	Explain the functionality and purpose of safety features on a range of products. Assign	Demonstrate how their products take into account the safety of the user. Assign
Processes	Electricity	AOL: Exp A&D Identify products that use electricity to make them work. covered optional	Identify products that use electricity to make them work and describe how to switch them on and off. Assign	Create an operational, simple series circuit. Assign	Incorporate a simple series circuit into a model. Assign	Incorporate circuits that use a variety of components into models or products. Assign	Use electrical circuits of increasing complexity in their models or products, showing an understanding of control. Assign	Understand and use electrical circuits that incorporate a variety of components (switches, lamps, buzzers and motors) and use programming to

								control their products. Assign
	Mechanisms and movement	AOL: Exp A&D Explore, build and play with a range of resources and construction kits with wheels and axles. covered x 5 optional	Use wheels and axles to make a simple moving model. covered x 2	Use a range of mechanisms (levers, sliders, wheels and axles) in models or products. Assign	Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products. Assign	Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products. covered x 3 optional	Use mechanical systems in their products, such as pneumatics and hydraulics. Assign	Explain and use mechanical systems in their products to meet a design brief. Assign
Creativity	Generation of ideas	AOL: Exp A&D Create collaboratively, share ideas and use a variety of resources to make products inspired by existing products, stories or their own ideas, interests or experiences. covered x 22 optional x 11	Create a design to meet simple design criteria. covered x 4	Generate and communicate their ideas through a range of different methods. covered x 3 optional x 2	Develop design criteria to inform a design. covered	Use annotated sketches and exploded diagrams to test and communicate their ideas. covered optional x 2	Use pattern pieces and computer-aided design packages to design a product. Assign	Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways. Assign
	Use of ICT	AOL: Exp A&D Use digital devices to take digital images or recordings of	Use design software to create a simple plan for a design.	Use design software to create a simple labelled design or plan.	Write a program to make something move on a	Write a program to control a physical device, such as a light,	Link a physical device to a computer or tablet so that it can be	Use a sensor to monitor an environmental variable, such as temperature,

		their creations to share with others. optional x 2	Assign	Assign	tablet or computer screen. Assign	speaker or buzzer. Assign	controlled (such as changing motor speed or turning an LED on and off) by a program. Assign	sound or light. Assign
	Structures	AOL: Exp A&D Construct simple structures and models using a range of materials. covered x 24 optional x 11	Construct simple structures, models or other products using a range of materials. covered x 6 optional	Explore how a structure can be made stronger, stiffer and more stable. covered x 3 optional	Create shell or frame structures using diagonal struts to strengthen them. Assign	Prototype shell and frame structures, showing awareness of how to strengthen, stiffen and reinforce them. covered	Build a framework using a range of materials to support mechanisms. covered x 2	Select the most appropriate materials and frameworks for different structures, explaining what makes them strong. Assign
Investigation	Investigation	AOL: PD Choose and explore appropriate tools for simple practical tasks. covered x 11 optional x 6	Select the appropriate tool for a simple practical task. covered optional	Select the appropriate tool for a task and explain their choice. covered x 3	Use tools safely for cutting and joining materials and components. Assign	Select, name and use tools with adult supervision. Assign	Name and select increasingly appropriate tools for a task and use them safely. Assign	Select appropriate tools for a task and use them safely and precisely. covered x 2 optional
	Evaluation	AOL: Exp A&D Adapt and refine their work as they are constructing and making. covered x 2 optional x 7	Talk about their own and each other's work, identifying strengths or weaknesses and offering support. covered x 3	Explain how closely their finished products meet their design criteria and say what they could do better in the future.	Suggest improvements to their products and describe how to implement them, beginning to take the views	Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and	Test and evaluate products against a detailed design specification and make adaptations as they develop	Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others.

			optional	covered x 2	of others into account. covered	those of others when making improvements. covered x 2	the product. covered	covered optional
Materials	Materials for purpose	AOL: Exp A&D Select appropriate materials when constructing and making. covered x 3 optional x 11	Select and use a range of materials, beginning to explain their choices. covered x 2 optional x 2	Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect. covered x 3	Plan which materials will be needed for a task and explain why. Assign	Choose from a range of materials, showing an understanding of their different characteristics. covered x 4 optional x 2	Select and combine materials with precision. optional x 2	Choose the best materials for a task, showing an understanding of their working characteristics. covered x 2
Nature	Food preparation and cooking	AOL: PSED Follow instructions, including simple recipes, that include measures and ingredients. covered x 5 optional	Measure and weigh food items using non-standard measures, such as spoons and cups. optional x 2	Prepare ingredients by peeling, grating, chopping and slicing. optional	Prepare and cook a simple savoury dish. covered x 3	Identify and use a range of cooking techniques to prepare a simple meal or snack. covered	Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish. covered x 2 optional	Follow a recipe that requires a variety of techniques and source the necessary ingredients independently. covered x 3
	Nutrition	AOL: PSED Suggest healthy ingredients that can be used to make simple snacks. optional x 4	Select healthy ingredients for a fruit or vegetable salad. covered	Describe the types of food needed for a healthy and varied diet and apply the principles to make a simple, healthy meal.	Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars). covered	Design a healthy snack or packed lunch and explain why it is healthy. covered x 3	Evaluate meals and consider if they contribute towards a balanced diet. covered x 3 optional	Plan a healthy daily diet, justifying why each meal contributes towards a balanced diet. covered

				covered				
	Origins of food	AOL: PSED Begin to identify the origins of some foods. Assign	Sort foods into groups by whether they are from an animal or plant source. covered	Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables). covered	Identify and name foods that are produced in different places. optional	Identify and name foods that are produced in different places in the UK and beyond. optional	Describe what seasonality means and explain some of the reasons why it is beneficial. covered x 3 optional x 4	Explain how organic produce is grown. covered
Comparison	Compare and contrast	AOL: Exp A&D Describe what, why and how something was made and compare with others. covered x 2 optional x 8	Describe the similarities and differences between two products. covered x 2 optional	Compare different brands of the same product and explain their similarities and differences. Assign	Explain the similarities and difference between the work of two designers. Assign	Create and complete a comparison table to compare two or more products. Assign	Survey users in a range of focus groups and compare results. Assign	Create a detailed comparative report about two or more products or inventions. covered x 3
Significance	Significant people	AOL: Exp A&D Explore significant products. covered x 2	Describe why a product is important. covered optional	Explain why a designer or inventor is important. covered	Describe how key events in design and technology have shaped the world. covered optional	Explain how and why a significant designer or inventor shaped the world. covered x 2 optional	Describe the social influence of a significant designer or inventor. optional	Present a detailed account of the significance of a favourite designer or inventor. Assign