DT Progression of Skills

Working Artistically

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Overview – taken from the National Curriculum	**Pupils should be taught to:** Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].		**Pupils should be taught to:** Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Respond to simple design criteria. Develop ideas as a team. Share ideas with class. Use existing products to support their designs.	Develop ideas as a team. Share ideas with class. Describe the product they are designing, who it is for and what its purpose is.	Design a product for a specific user and purpose. Communicate their designs through discussions. Create annotated sketches and diagrams, indicating	Collect information about the requirements of the product and the needs of the user. Create annotated sketches and diagrams, indicating	Begin to use research and develop designs considering existing products. Record their designs using prototypes and cross sectional diagrams.	Use research and investigations to develop designs. Record their designs using prototypes and exploded diagrams. Evaluate prototypes and make

	Describe the product they are designing. Record their designs using annotated pictures.	Record their designs using annotated pictures. Record their designs by producing templates and mock ups. Use ICT to support their design process.	key features of their product. Explain how particular parts of the design will work or be joined together. Use ICT to support their design process.	key features of their product. Generate a prototype. Use ICT to support their design process.	Evaluate prototypes. Use ICT to support their design process.	adjustments to their designs. Know how much a product will cost to make. Use ICT to support their design process.
Make	Cut and join fabric. Learn how to hold a needle without losing the thread. Use running stitch. Use scissors safely. Mark, measure, fold and cut card accurately. Use split pins, card hinges and simple sliding lever mechanisms. Combine a range of ingredients to create a fruit cocktail.	Use templates to mark out fabric. Cut and join fabric. Use running stitch. Mark, measure, fold and cut card accurately. Use card wheels and dowel axles. Combine a range of ingredients to create a healthy packed lunch. Chop and peel vegetables/fruit.	Thread a needle. Use running stitch and back stitch. Use a cool melt gun. Use box corners to strengthen a structure. Use appropriate techniques to prepare fruit and vegetables - slicing, peeling, chopping, grating. Mix, whisk and fold ingredients. Model and join clay.	Pin and tack fabric. Use chain stitch. Use and iron safely. Use a cool melt gun. Use a junior hacksaw. Carve a material such as balsa wood or styrofoam. Choose appropriate techniques to prepare fruit and vegetables - slicing, peeling, chopping, grating.	Measure, cut and join fabric with some accuracy. Use blanket stitch. Use a tenon saw and bench hook safely to cut wood. Use a try square to mark out wood. Use a file or glass paper and a block. Make pastry using the rubbing in method. Use the oven.	Use finishing techniques such as attaching buttons and sequins using thread. Use cross stitch. Select tools, materials, components and techniques. Know how to mark for drilling. Use a screwdriver. Knead dough and make bread rolls or pizza dough.

	Grate and chop vegetables/fruit. Create a structure using junk modelling materials.	Weigh accurately using scales. Measure liquid accurately using a measuring jug.	Make a simple circuit.	Incorporate bulbs and switches into a circuit.	Incorporate buzzers and switches into a circuit.	Use an oven or appropriate heat source. Use motors to drive models.
Technical knowledge	Explore and use mechanisms such as levers and sliders. Explore how to make structures stronger and more stable.	Explore and use mechanisms such as wheels and axels. Explore how to make structures stronger and more stable.	Use tools (junior hacksaw, glue gun, peeler, knife and grater) safely and accurately. Choose clay tools to create a desired effect.	Use tools (junior hacksaw, glue gun, peeler, knife and grater) safely and accurately. Choose clay tools to create a desired effect.		
Cooking and Nutrition	Know that all food comes from animals or plants.	Know that all food comes from animals or plants and needs	Know that food is grown, reared and caught in the UK,	Know that food is grown, reared and caught in the UK,	Understand that seasons may affect	Understand how food is processed into ingredients that can

	Name food groups and sort foods. Prepare a healthy meal using cutting, peeling and grating techniques. Prepare food hygienically – washing hands, washing up.	to be farmed, grown or caught. Name food groups and sort foods. Follow a recipe. Prepare a healthy meal using cutting, peeling and grating techniques. Prepare food hygienically – washing hands, washing up.	Europe and the wider world. Plan a healthy meal, knowing the function of the different food groups. Follow a recipe. Prepare food hygienically and safely, using a range of techniques.	Europe and the wider world. Plan a healthy meal, knowing the function of the different food groups. Follow a recipe. Prepare food hygienically and safely, using a range of techniques.	the availability of some foods.	be eaten or used in cooking.
Evaluate	Start to evaluate their designs and product in relation to the design criteria. Discuss any problems that occur during the 'making' process. Talk about changes they might make. Say what they like and dislike about their product.	Evaluate their work in relation to the design criteria. Evaluate existing designs. Suggest how my product can be improved. Make simple judgements about their product against design criteria.	Evaluate existing designs. Evaluate own products against the design criteria. Suggest improvements that could be made to their designs. Consider the views of others, including the intended user. Reflect on the making process and identify what went well and	Evaluate existing designs. Evaluate own products against the design criteria. Suggest improvements that could be made to their designs. Consider the views of others, including the intended user. Reflect on the making process and identify what went well and		

			what could be improved.	what could be improved.		
Topics covered	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	Making a moving dinosaur picture.	Healthy eating packed lunch.	Make a Stone Age tool. Design a skeleton.	Egyptian Shaduf. Ancient Egyptian Bread.		Design and make own chocolate packaging. STEM – building bridges. Design and make own chocolate.
Autumn 2	Bake mince pies.	Sewing a Christmas decoration.	Shadow puppets. Symmetrical biscuits.		Marble Run/ Gears	
Spring 1	Pancake day.	Carrier pigeons. Jewish food.	Design and make an iconic building or bridge for a new city.	Battery Operated Lights.		Anderson shelters. Traditional WW2 food from own produce.
Spring 2	Making Victorian toys.				Cushion Covers	
Summer 1	Fruit cocktails.	Making fire engines.	Roman catapult. Roman sandals. Erupting volcano. Roman bread. Italian cooking.	Design and make a Viking long boat Salt dough brooch making. Anglo Saxon Feast. Anglo-Saxon fabric and clothing.		Tasting different foods.
Summer 2		Tasting crops.			Cookery	

Designing Understanding contexts, users and purposes	*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 •*	*State what products they are designing and making* *Say how they will make their products suitable for their intended users* *Use simple design criteria to help develop their ideas*	*Gather information about the needs and wants of particular individuals and groups* *Use a given criteria to design and inform own ideas.*	*Gather information about the needs and wants of particular individuals and groups* *Develop their own design criteria and use these to inform their ideas*	*Identify the needs, wants, preferences and values of particular individuals and groups* *Develop a simple design specification to guide their thinking*	*Carry out research, using surveys, interviews, questionnaires and web-based resources* *Develop a detailed design specification to guide their thinking*
Designing Generating, developing, modelling and communicating ideas	*Generate ideas by drawing on their own experiences model ideas by exploring materials, components* *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*	Make design decisions that take account of the availability of resources	Generate realistic ideas, focusing on the needs of the user	Generate innovative ideas, drawing on research	Make design decisions, taking account of constraints such as time, resources and cost

Making Planning	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	Order the main stages of making	Order the stages of making	Produce appropriate lists of tools, equipment and materials that they need Formulate step-by-step plans as a guide to making	Formulate a detailed step-by-step plan as a guide to making
Making Practical skills and techniques	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	Measure, mark out, cut and shape materials and components with some accuracy.	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	Measure, mark out, cut and shape materials and components with increased accuracy Assemble, join and combine materials and components with increased accuracy Apply a range of finishing techniques, including those from art and design, with increased accuracy	Accurately measure, mark out, cut and shape materials and components Accurately apply a range of finishing techniques, including those from art and design Use techniques that involve a number of steps	Accurately assemble, join and combine materials and components Demonstrate resourcefulness when tackling practical problems

	those from art and design.					
Evaluate Own ideas and products	Talk about their design ideas and what they are making Suggest how their products could be improved	Make simple judgements about their products and ideas against design criteria	Refer to their design criteria as they design and make Use their design criteria to evaluate their completed products	Evaluate their ideas and products against their original design specification	Evaluate their ideas and products against their original design specification	Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make
Existing products	What products are. Who products are for. How products work. How products are used. What materials products are made from.	Where products might be used What they like and dislike about products, explaining why.	When products were designed and made. Whether products can be recycled or reused.	Who designed and made the products. Where products were designed and made.	How much products cost to make. How sustainable the materials in products are.	How innovative products are. What impact products have beyond their intended purpose.
Key events and individuals			Inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.			

Technical Knowledge	About the simple working characteristics of materials and components About the movement of simple mechanisms such as levers and wheels That food ingredients should be combined according to their sensory characteristics The correct technical vocabulary for the projects they are undertaking	How freestanding structures can be made stronger, stiffer and more stable About the movement of simple mechanisms such as levers, sliders, wheels and axles That a 3-D textiles product can be assembled from two identical fabric shapes	How mechanical systems such as levers and linkages or pneumatic systems create movement 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	How simple electrical circuits and components can be used to create functional products	How mechanical systems such as cams or pulleys or gears create movement How to program a computer to monitor changes in the environment and control their products 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	How more complex electrical circuits and components can be used to create functional products How to reinforce and strengthen a 3D framework
Cooking and nutrition Where food comes from	That all food comes from plants or animals	That food has to be farmed, grown elsewhere (e.g. home) or caught	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	That a recipe can be adapted a by adding or substituting one or more ingredients	That seasons may affect the food available	How food is processed into ingredients that can be eaten or used in cooking
Cooking and nutrition	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	That a healthy diet is made up from a variety and balance of different food and	How to prepare complexed dishes safely and	That recipes can be adapted to change the appearance,	Different food and drink contain different substances – nutrients, water

Food preparation cooking and nutrition	How to use techniques such as cutting, peeling and grating	How to prepare simple dishes safely and hygienically, without using a heat source	drink, as depicted in The eatwell plate That to be active and healthy, food and drink are needed to provide energy for the body How to prepare simple dishes safely and hygienically, with using a heat source	hygienically, with using a heat source	taste, texture and aroma	and fibre –that are needed for health
	Foundation Stage: Refer to DFE Statutory Framework for early years foundation stage: (published March 2021/effective September 2021) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974907/EYFS_framework_-_March_2021.pdf					