DT Progression of Skills

The KS2 objectives have been split into lower and upper. If there are missing numbers in UKS2 then the objectives in LKS2 need to be looked at and progressed and developed.

	KS1	LKS2	UKS2
Designing	D1 work confidently within a range of contexts, such as imaginary, storybased, home, school, gardens, playgrounds, local community, industry and the wider environment D2 state what products they are making D3 say whether their products are for themselves or other users D4 describe what their products are for D5 say how their products will work D6 say how they will make their products suitable for their intended users D7 use simple design criteria to help develop their ideas D8 generate ideas by drawing on their own experiences D9 use knowledge of existing products to help come up with ideas D10 develop and communicate ideas by talking and drawing D11 model ideas by exploring materials, components and construction kits and by making templates and mockups D12 use ICT, where appropriate, to develop and communicate their ideas	D1work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment D2 describe the purpose of their products D3 indicate the design features of their products that will appeal to intended users D4 explain how particular parts of their products work D5 gather information about needs and wants of particular individuals and groups D6 develop their own design criteria and use these to inform their ideas D7 share and clarify ideas through discussion D8 model their ideas using prototypes and pattern pieces D9 generate realistic ideas, focusing on the needs of the user D10 make design decisions that take account of the availability of resources	D11 carry out research, using surveys, interviews, questionnaires and web-based resources D12 identify the needs, wants, preferences and values of particular individuals and groups D13 develop a simple design specification to guide their thinking D14 use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas D15 use computer-aided design to develop and communicate their ideas
Evaluating	E1 talk about their design ideas and what they are making E2 make simple judgements about their products and ideas against design criteria E3 suggest how their products could be improved E4 explore what products are and who or what they are for. E5 explore how products work and how or where they might be used. E6 explore what materials products are made from E7 explore what they like and dislike about products	E1 identify the strengths and areas for development in their ideas and products E2 consider the views of others, including intended users, to improve their work E3 refer to their design criteria as they design and make E4 use their design criteria to evaluate their completed products E5 how well products have been designed and made E6 why materials have been chosen E7 what methods of construction have been used E8 developed ground-breaking products E9 how well products work to achieve their purposes E10 how well products meet user needs and wants E11 who designed and made the products E12 where and when products were designed and made E13 whether products can be recycled or reused	E14 critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make E15 evaluate their ideas and products against their original design specification E16 how much products cost to make E17 how innovative products are E18 how sustainable the materials in products are E19 what impact products have beyond their intended purpose E20 about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products

Making	M1 plan by suggesting what to do next M2 select from a range of tools and equipment, explaining their choices M3 select from a range of materials and components according to their characteristics M4 follow procedures for safety and hygiene M5 use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components M6 measure, mark out, cut and shape materials and components M7 assemble, join and combine materials and components M8 use finishing techniques, including those from art and design	M1 select tools and equipment suitable for the task M2 explain their choice of tools and equipment in relation to the skills and techniques they will be using M3 select materials and components suitable for the task M4 explain their choice of materials and components according to functional properties and aesthetic qualities M5 order the main stages of making M6 follow procedures for safety and hygiene M7 use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components M8 measure, mark out, cut and shape materials and components with some accuracy M9 assemble, join and combine materials and components with some accuracy M10 apply a range of finishing techniques, including those from art and design, with some accuracy	M11 produce appropriate lists of tools, equipment and materials that they need M12 formulate step-by-step plans as a guide to making M13 accurately measure, mark out, cut and shape materials and components M14 accurately assemble, join and combine materials and components M15 accurately apply a range of finishing techniques, including those from art and design M16 use techniques that involve a number of steps M17 demonstrate resourcefulness when tackling practical problems
Technical Knowledge	T1 about the simple working characteristics of materials and components T2 about the movement of simple mechanisms such as levers, sliders, wheels and axles T3 how freestanding structures can be made stronger, stiffer and more stable T4 that a 3-D textiles product can be assembled from two identical fabric shapes T6 the correct technical vocabulary for the projects they are undertaking	T1 how to use learning from science and maths to help design and make products that work T2 that materials have both functional properties and aesthetic qualities T3 that materials can be combined and mixed to create more useful characteristics T4 that mechanical and electrical systems have an input, process and output T5 use the correct technical vocabulary for the projects they are undertaking T6 how mechanical systems such as levers and linkages or pneumatic systems create movement T7 how simple electrical circuits and components can be used to create functional products T8 how to make strong, stiff shell structures T9 that a single fabric shape can be used to make a 3D textiles product T10 that food ingredients can be fresh, pre-cooked and processed	T11 how mechanical systems such as cams or pulleys or gears create movement T12 how more complex electrical circuits and components can be used to create functional products T13 how to program a computer to monitor changes in the environment and control their products T14 how to reinforce and strengthen a 3D framework T15 that a 3D textiles product can be made from a combination of fabric shapes T16 that a recipe can be adapted by adding or substituting one or more ingredients
Cooking and Nutrition	C1 that all food comes from plants or animals C2 that food has to be farmed, grown elsewhere (e.g. home) or caught C3 how to name and sort foods into the five groups in The Eatwell Plate C4 that everyone should eat at least five portions of fruit and vegetables every day C5 how to prepare simple dishes safely and hygienically, without using a heat source C6 how to use techniques such as cutting, peeling and grating	C1 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 C2 how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source C3 how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking C4 that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Plate C5 that to be active and healthy, food and drink are needed to provide energy for the body	C6 that seasons may affect the food available C7 how food is processed into ingredients that can be eaten or used in cooking C8 that recipes can be adapted to change the appearance, taste, texture and aroma C9 that different food and drink contain different substances – nutrients, water and fibre – that are needed for health