DT Upper Key Stage 2

- At Upper Key Stage 2, the sticky knowledge takes full account of the National Curriculum's main characteristics of:

Designing	Making	Evaluating	Technical Knowledge	Cooking & Nutrition
Understanding contexts, users and purposes. Generating, developing, modelling and communicating ideas.	*Planning. Practical skills and techniques.*	*Own ideas and products. Existing products. Key events and individuals.*	*Making products work.*	*Where food comes from. Food preparation, cooking and nutrition.*
Across UKS2 pupils should: Work confidently within a range of contexts, such as imaginary story-based, home, school, gardens, playgrounds, local community, industry and the wider environment.				
Upper Key Stage 2:				
• Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Carry out research, using surveys, interviews, questionnaires and web-based resources • Identify the needs, wants, preferences and values of particular	• Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities • Accurately measure, mark out, cut and shape materials and components • Accurately assemble, join and combine materials and components • Accurately apply a range of finishing techniques, including those	• Identify the strengths and areas for development in their ideas and products • Consider the views of others, including intended users, to improve their work • Investigate and analyse a range of existing products • Investigate and analyse: how much products cost to make, how innovative they are, how sustainable the materials in products are, what	• Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products (eg pulleys, gears, cams, levers and linkages) • Understand how more complex electrical circuits can be used to create functional products (eg series circuits incorporating switches,	• Know that food is grown, reared and caught in the UK, Europe and the wider world • Know that seasons may affect the food available • Understand how food is processed into ingredients that can be eaten or used in cooking • Know that different food and drink contain different substances

individuals and groups • Generate innovative ideas, drawing on research • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional diagrams • Use prototypes (and pattern pieces where appropriate), exploded diagrams (that show how products fit together) and computer aided software to represent designs.	from art and design • Demonstrate resourcefulness when tackling practical problems	impact products have beyond their intended purpose • Know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products	bulbs, buzzers and motors) • Apply their understanding of computing to program, monitor and control their products.	– nutrients, water and fibre – that are needed for health

Vocabulary Progression:

The following vocabulary is introduced in Year 5 & 6

bespoke	a product which has been made to order
combine	to mix together, more than one
dough	a product made from ingredients when making biscuits or bread
CAD	computer aided designed
CAM	computer aided manufacture
gear	a toothed wheel which works with others to alter speed
motor	an electric component designed to make something move
pulley	a wheel with a ring which a cord passes through
reinforce	to strengthen
strengthen	to make stronger
spindle	a thin rounded rod
triangulation	using a triangular support to strengthen a structure
wadding	thick interior stuffing
yeast	single-cell organism which needs warmth, food and moisture to survive