# **Progression of Skills for Design Technology**

Year	Skill Progression
Reception	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
	Use what they have learned about materials in original ways, thinking about uses and purposes.
	Represent their own ideas, thoughts and feelings through design and technology. ELG
KS1	DESIGN
Year 1/2	design purposeful, functional, appealing products for themselves and other users based on design criteria
	generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
	MAKE
	select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing
	select from and use a range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
	EVALUATE
	explore and evaluate a range of existing products
	evaluate their ideas and products against design criteria
	TECHNICAL KNOWLEDGE
	build structures, exploring how they can be made stronger, stiffer and more stable
	explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
	COOKING AND NUTRITION
LKCO	use the basic principles of a healthy and varied diet to prepare dishes
LKS2 Year 3/4	DESIGN  Use research and develop design exitoria to inform the design of innovative functional appealing products that are fit for numbers aimed at particular
/eui 5/4	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
	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern
	pieces and computer-aided design
	MAKE
	select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
	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
	EVALUATE
	investigate and analyse a range of existing products
	evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
	understand how key events and individuals in design and technology have helped shape the world Technical knowledge apply their understanding of how to strengthen, stiffen and reinforce more complex structures
	understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
	understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
	apply their understanding of computing to program, monitor and control their products.
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#### **COOKING AND NUTRITION**

Select from a range of ingredients according to their functional properties and aesthetic qualities

Generate, develop and communicate ideas through discussion

Evaluate own ideas and products against the views of others and the design criteria Identify differences, similarities or changes related to simple scientific ideas and processes

Know that some materials change state when they are heated or cooled

ask relevant questions

setting up simple practical enquiries,

make systematic and careful observations

use simple scientific language, drawings, labelled diagrams,

identify differences, similarities or changes related to simple scientific ideas and processes

# **COMPUTING SCIENCE**

apply their understanding of computing to program, monitor and control their products

design, write and debug programs that accomplish specific goals

solve problems by decomposing them into smaller parts

use repetition in programs

use logical reasoning to explain how some simple algorithms work and detect and correct errors

# UKS2 Year 5/6

#### **DESIGN**

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 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately 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

# **EVALUATE**

investigate and analyse a range of existing products

evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world

# **TECHNICAL KNOWLEDGE**

apply their understanding of how to strengthen, stiffen and reinforce more complex structures

understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.

#### **COOKING AND NUTRITION**

Understand seasonally where things are grown

Understand the principles of a varied diet

prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques

locate the world's countries and regions using maps

understand aspects of human geography eg. Types of settlement and land use, economic activity and the distribution of natural resources