SHERRIER C OF E PRIMARY DESIGN & TECHNOLOGY NATIONAL CURRICULUM COVERAGE

NATIONAL CURICULUM FOR DESIGN TECHNOLOGY

Purpose of study Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life

Aims:

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

DT COVERAGE KS1		Y1			Y2		
		AUT	SPR	SUM	AUT	SPR	SUM
Pupils should:							
Have the knowledge, understanding and skills needed to engage in an iterative process of designing and making			x			x	
work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].				x			x
use the basic principles of a healthy and varied diet to prepare dishes					x		x
understand where food comes from			x		x		
Pupils should be taught to:							
Design	design purposeful, functional, appealing products for themselves and other users based on design criteria	**x**		x	x		**x**
	generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology		**x**			**x**	
Make	select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	**x**		x	x	**x**	
	select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics		**x**		x		

Evaluate	explore and evaluate a range of existing products					**x**	
	evaluate their ideas and products against design criteria		**x**			**x**	
Knowledge	build structures, exploring how they can be made stronger, stiffer and more stable		**x**				x
Technical	explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products				x		

DESIGN TECHNOLOGY COVERAGE KS2		Y3			Y4			Y5			Y6		
		A	SP	SU	A	SP	SU	A	SP	SU	A	SP	SU
Pupils should:													
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.				x	x			x			x		
They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].				x		x					x		
understand and apply the principles of a healthy and varied diet		x											x
prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques		x						x					x
understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.		x											x
Pupils should be taught to:													
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	**x**			**x**			**x**			**x**		
Design	generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	**x**			**x**			**x**			**x**		

Make	select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	x					x	x			x		
	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	x		x	x			x		x	x		x
Evaluate	investigate and analyse a range of existing products	x		x									
	evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	x						x			x		x
	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	x	x										
	understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]						x	x					
	Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]				x							x	
	apply their understanding of computing to program, monitor and control their products											X	