## Design Technology Long Term Plan Overview LKS2

Cycle A 2023/2024	Autumn	Spring	Summer		
Theme Title	Lights, Camera, Action	Poles Apart	The Olympics		
Design Technology Study Title	Light Up Signs	Helping Hand (Science links)	Olympic Merchandise		
Overview / Outcome	Product Purpose User	Product Purpose User	Product Purpose User		
Teachers can change the product to fit the needs of their students	A light up Use as aKS2 child sign made nighlight in a from wood bedroom and including an electric circuit	Arthritic To use People with gloves with equipment arthritis polymorph	Fabric To use simple Olympic fans merchandise sewing for the techniques Olympics		
Area of Focus	Workshop – Structures Mechanisms Electrical	Workshop – Structure	Textiles		
Key Learning Objectives	<ul> <li>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</li> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</li> <li>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</li> <li>investigate and analyse a range of existing products</li> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>apply their understanding of how to strengthen, stiffen and reinforce</li> </ul>	- 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 properties and aesthetic qualities - investigate and analyse a range of existing products - apply their understanding of how to strengthen, stiffen and reinforce more complex structures	<ul> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups</li> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing], accurately</li> <li>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</li> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> </ul>		

more complex structures - understand and use electrical systems in their products - apply their understanding of computing to program, monitor and control their products	

Cycle B 2024/2025	Autumn	Spring			Summer			
Theme Title	Life on Earth	Material Ages (Stone Age)			Invaders (Saxons and Vikings)			
Design Technology Study Title	Forces Game	Make a bread roll			Making a Mini Greenhouse (Science links)			
Suggested Product Teachers can change the product to fit the needs of their students	ProductPurposeA gameTo showusingknowledge ofmagnets/magneticMarbel runforces	User A child	Product Bread	<b>Purpose</b> Create a bread roll using simple baking techniques	<b>User</b> Create a bread roll using simple baking techniques	Product Bread	<b>Purpose</b> Create a bread roll using simple baking techniques	<b>User</b> A Viking bakery
Area of Focus	Workshop – Structures		Food and Nutrition			Workshop – Structures		
Key Learning Objectives	<ul> <li>- 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</li> <li>- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li> <li>- investigate and analyse a range of existing products</li> <li>- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>- Develop vocabulary related to the project.</li> <li>- Use mechanical systems such as gears, pulleys, levers and linkages. § Incorporate a circuit into a model.</li> <li>- Use lolly sticks/card to make levers and linkages.</li> <li>- Use linkages to make movement langen on more varied</li> </ul>		<ul> <li>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</li> <li>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</li> <li>investigate and analyse a range of existing products</li> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>understand and apply the principles of a healthy and varied diet</li> <li>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> </ul>			<ul> <li>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</li> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately properties and aesthetic qualities</li> <li>investigate and analyse a range of existing products</li> <li>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> </ul>		

Cycle C 2021/2022	Autumn			Spring			Summer				
Theme Title	War and Remembrance			The Americas (Rainforests)			Health through Time / The Romans				
Design Technology Study Title	Night Light			Amazon Meals			Creating a Roman Trebuchet				
Overview / Outcome	Product	Purpose	User	Product	Purpose	User	Product	Purpose	User		
Teachers can change the product to	A night	To use in a	A child	A meal	To survive in	An explorer	A Roman	To knock	The roman		
fit the needs of their students	light	bunker		celebratin	the		Trebuchet	down enemy	army		
				g the	rainforest			walls			
				t							
Area of Focus	Workshop -	Structures		Food and I	Jutrition		Workshop	- Mechanico	<u> </u>		
	workshop	Structures		FOOD and I	Valiation						
Key Learning Objectives	- use resear	ch and develo	p design	- use resea	rch and develo	op design	- use research and develop design				
	criteria to i	nform the des	sign of	criteria to	inform the des	sign of	criteria to inform the design of				
	innovative, t	functional, app	bealing	innovative,	functional, app	burbada	innovative, functional, appealing				
	products in	at are fit for nticular individ	purpose, duale or	products that are fit for purpose,			aimed at particular individuals or				
	arouns			arnea ar particular individuals or			aroups				
	- generate	develop, mode	el and	- generate, develop, model and			- generate, develop, model and				
	communicat	e their ideas t	through	communicate their ideas through			communicate their ideas through				
	discussion, a	annotated ske	tches,	discussion, annotated sketches,			discussion, annotated sketches,				
	cross-sectio	onal and explo	ded	cross-sectional and exploded			cross-secti	onal and explo	oded		
	diagrams, pr	rototypes, pat	tern pieces	diagrams, prototypes, pattern pieces			diagrams, p	rototypes, pa	ttern pieces		
	and compute	er-aided desig	ŋn	and computer-aided design			and comput	er-aided desi	gn		
	- select from	m and use a w	ider range	- investigate and analyse a range of			- investigate and analyse a range of				
	of tools and	equipment to	perform	existing products			existing products				
	practical ta	sks [tor exam	pie, cutting,	- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work			<ul> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>Develop vocabulary related to the</li> </ul>				
	shaping, join	properties and	ling],								
	aualities	or oper ries and	desment								
	- investigate	e and analyse	a range of								
	existing pro	ducts	, see a second sec				project.				
	- apply their	r understandir	ng of				- Use mechanical systems such				ems such as
	how to stre	ngthen, stiffe	en and				gears, pulleys, levers and linkages. § Incorporate a circuit into a model.				
	reinforce m	ore									
	_complex stru	uctures					- Use lolly s	stic <mark>ks/card</mark> to	make levers		
							and linkage	S.			
							- Use link	ages to mak	e movement		
				1			larger or more varied				

Cycle D 2022/2023	Autumn			Spring			Summer			
Theme Title	The Ancients (Egypt)		Canals			British History				
Design Technology Study Title	Passport Holder		Structures			British Inventors				
Overview / Outcome	Product	Purpose	User	Product	Purpose	User	Product	Purpose	User	
Teachers can change the product to	A passport	To stop the	A child	A water	To harness	People living	Product			
fit the needs of their students	cover	passport		wheel	energy	near a river	of choice			
		from getting								
		damaged								
Area of Focus	Textiles			Workshop –	Structures		Workshop - Mechanics			
Key Learning Objectives	- use resear	ch and develo	p design	- use resear	ch and develo	p design	- use resear	- use research and develop design		
	criteria to i	nform the des	ign of	criteria to inform the design of			criteria to inform the design of			
	innovative,	runctional, app	ealing	innovative, t	unctional, app	ealing	innovative, functional, appealing			
	products th	at are tit tor	purpose,	urpose, products that are fit for purpose,			products that are fit for purpose,			
	arouns	a aimed at particular individuals or				arnea ar particular maividuals or				
	- select from and use a wider rance of			- generate develop model and			- generate develop model and			
	tools and equipment to perform			communicate their ideas through			communicate their ideas through			
	practical tasks [for example, cutting,			discussion, annotated sketches,			discussion.	innotated ske	tches.	
	shaping, joir	ning and finish	ing],	cross-sectional and exploded			cross-sectio	nal and explo	ded	
	accurately	2	5-	diagrams, prototypes, pattern pieces			diagrams, pr	ototypes, pat	tern pieces	
	- select fro	m and use a wi	der range	nge and computer-aided design		and computer-aided design				
	of materials	s and componer	nts,	s, - select from and use a wider range		- understand how key events and				
	including co	luding construction materials, of tools and equipmen		equipment to	perform individuals in design and techn		echnology			
	textiles and	l ingredients, c	according to	practical tasks [for example, cutting,		have helped shape the world				
	their functi	onal propertie	s and	shaping, joining and finishing],			- apply their understanding of how to		ng of how to	
	aesthetic qu	Jalities		accurately properties and aesthetic			strengthen, stiffen and reinforce			
	- evaluate t	heir ideas and	products	qualities			more comple	x structures		
	against the	r own design c	meria and	- investigate and analyse a range of						
	improve the	e views of othe	5175 10	- apply their	uucis understandir	na of				
	improve me			how to stree	othen stiffe	n and				
				reinforce m	ore					
				_complex stru	ictures					