# Design and Technology

## Level Expected at the End of EYFS

We have aimed to select the Early Learning Goals that link most closely with the Design and Technology National Curriculum.

**Expressive Arts and Design (Creating with Materials)** 

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;

- Share their creations, explaining the process they have used

## **Physical Development (Fine Motor Skills)**

- Use a range of small tools, including scissors, paint brushes and cutlery;

Key Stage 1 National Curriculum Expectations	Key Stage 2 National Curriculum Expectations
Design Pupils should be taught to:	Design Pupils should be taught to:
<ul> <li>design purposeful, functional, appealing products for themselves and other users based on design criteria;</li> <li>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</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</li> </ul>
Make	pieces and computer-aided design.
Pupils should be taught to:	Make
<ul> <li>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing];</li> <li>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</li> </ul>	<ul> <li>Pupils should be taught to:</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> </ul>

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#### **Evaluate**

Pupils should be taught to:

- explore and evaluate a range of existing products;
- evaluate their ideas and products against design criteria.

### **Technical Knowledge**

Pupils should be taught to:

- 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**

Pupils should be taught to:

- use the basic principles of a healthy and varied diet to prepare dishes;
- + understand where food comes from

# Evaluate

Pupils should be taught to:

- 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**

Pupils should be taught to:

- understand and apply the principles of a healthy and varied diet;
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques;
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.



Year	Design	Make	Evaluate	Technical	Technical	Technical	Technical	Technical
	0			knowledge	knowledge –	knowledge –	knowledge –	knowledge – Food
				Materials/struc-	Mechanisms	Textiles	Electrical systems	and nutrition
				tures			···· · · · · · · · · · · · · · · · · ·	
1	* have own ideas	*explain what I'm	*talk about my	begin to measure	*begin to use levers,			describe textures
	(Treasure Island) (A	making and why	work, linking it to	and join materials,	slides, wheels and			(Treasure Island) (A
	Day in the Life) (The	(Treasure Island) (A	what I was asked to	with some support	axles in their			Day in the Life)
	Circus is Coming to	Day in the Life) (The	do (Treasure Island)	(A Day in the Life)	products <mark>(A Day in</mark>			*wash hands &
	Town)	<b>Circus is Coming to</b>	(A Day in the Life)	(The Circus is	the Life)			clean surfaces
	* explain what I	Town)	(The Circus is	Coming to Town)				(Treasure Island) (A
	want to do	*consider what I	Coming to Town)	*describe				Day in the Life)
	(Treasure Island) (A	need to do next	* talk about existing	differences in				*think of interesting
	Day in the Life) (The	(Treasure Island) (A	products	materials (A Day in				ways to decorate
	Circus is Coming to	Day in the Life) (The	considering: use,	the Life) (The Circus				food (A Day in the
	Town)	Circus is Coming to	materials, how they	is Coming to Town)				Life)
	*explain what my	Town)	work, audience,	*suggest ways to				*say where some
	product is for, and	*select	where they might be	make				foods come from,
	how it will work	tools/equipment to	used (A Day in the	material/product				(i.e. plant or animal)
	(Treasure Island) (A	cut, shape, join,	Life) (The Circus is	stronger (A Day in				(Treasure Island)
	Day in the Life) (The	finish and explain	Coming to Town)	the Life) (The Circus				*describe
	Circus is Coming to	choices <mark>(A Day in</mark>	*talk about existing	is Coming to Town)				differences between
	Town)	the Life) (The Circus	products, and say					some food groups
	* use pictures and	is Coming to Town)	what is and isn't					(i.e. sweet,
	words to plan, begin	*measure, mark out,	good (Treasure					vegetable etc.)
	to use models	cut and shape, with	Island) (The Circus is					(Treasure Island) (A
	(Treasure Island) (A	support <mark>(A Day in</mark>	Coming to Town)					Day in the Life)
	Day in the Life) (The	the Life) (The Circus	* talk about things					*discuss how fruit
	Circus is Coming to	is Coming to Town)	that other people					and vegetables are
	Town)	*choose suitable	have made (A Day					healthy (Treasure
	* design a product	materials and	in the Life) (The					Island) (A Day in the
	for myself following	explain choices (A	Circus is Coming to					Life)
	design criteria	Day in the Life) (The	Town)					*cut, peel and grate
	(Treasure Island) (A	Circus is Coming to	*begin to talk about					safely, with support
	Day in the Life) (The	Town)	what could make					(Treasure Island) (A
	Circus is Coming to	*try to use finishing	product better					Day in the Life)
	Town)	techniques to make	(Treasure Island) (A					
	*research similar	product look good	Day in the Life) (The					
	existing products	(A Day in the Life)	Circus is Coming to					
	(Treasure Island) (A	(The Circus is	Town)					
	Day in the Life) (The	Coming to Town)						



Year	Design	Make	Evaluate	Technical knowledge Materials/struc-	Technical knowledge – Mechanisms	Technical knowledge – Textiles	Technical knowledge – Electrical systems	Technical knowledge – Food and nutrition
	Circus is Coming to Town)	*work in a safe and hygienic manner (Treasure Island) (A Day in the Life) (The Circus is Coming to Town)		tures				
2	have own ideas and plan what to do next (From A to B) (Magic Toymaker) (Time travellers) * explain what I want to do and describe how I may do it (From A to B) (Magic Toymaker) (Time travellers) * explain purpose of product, how it will work and how it will be suitable for the user (From A to B) (Magic Toymaker) (Time travellers) * describe design using pictures, words, models, diagrams, begin to use ICT (From A to B) (Magic Toymaker) (Time travellers) * design products for myself and others following	explain what I am making and why it fits the purpose (From A to B) (Buildings) (Magic Toymaker) (Time travellers) *make suggestions as to what I need to do next. (From A to B) (Buildings) (Magic Toymaker) (Time travellers) *join materials/componen ts together in different ways (From A to B) (Buildings) (Magic Toymaker) *measure, mark out, cut and shape materials and components, with support. (From A to B) (Buildings) (Magic Toymaker) (Time travellers) *describe which tools I'm using and	* describe what went well, thinking about design criteria (From A to B) (Buildings) (Magic Toymaker) (Time travellers) * talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion (From A to B) (Buildings) (Magic Toymaker) (Time travellers) * evaluate how good existing products are(From A to B) (Buildings) (Magic Toymaker) (Time travellers) * talk about what I would do differently if I were to do it again and why	*measure materials (From A to B) (Buildings) (Magic Toymaker) (Time travellers) *describe some different characteristics of materials (From A to B) (Buildings) (Magic Toymaker) *join materials in different ways (From A to B) (Buildings) (Magic Toymaker) *use joining, rolling or folding to make it stronger (From A to B) (Buildings) (Magic Toymaker) *use own ideas to try to make product stronger (From A to B) (Buildings)	*use levers or slides (From A to B) (Buildings) *begin to understand how to use wheels and axles (From A to B)	*measure textiles (Magic Toymaker) *join textiles together to make a product, and explain how I did it (Magic Toymaker) *carefully cut textiles to produce accurate pieces (Magic Toymaker) *explain choices of textile (Magic Toymaker) *understand that a 3D textile structure can be made from two identical fabric shapes. (Magic Toymaker)		*explain hygiene and keep a hygienic kitchen (Time travellers) *describe properties of ingredients and importance of varied diet (Time travellers) *say where food comes from (animal, underground etc.) (Time travellers) *describe how food is farmed, home- grown, caught (Time travellers) *draw eat well plate; explain there are groups of food (Time travellers) *describe "five a day" (Time travellers) *cut, peel and grate with increasing confidence (Time travellers)



Year	Design	Make	Evaluate	Technical knowledge Materials/struc- tures	Technical knowledge – Mechanisms	Technical knowledge – Textiles	Technical knowledge – Electrical systems	Technical knowledge – Food and nutrition
	design criteria (From A to B) (Magic Toymaker) (Time travellers) * choose best tools and materials, and explain choices (From A to B) (Magic Toymaker) (Time travellers) * use knowledge of existing products to produce ideas (From A to B) (Magic Toymaker) (Time travellers)	why (From A to B) (Buildings) (Magic Toymaker) (Time travellers) *choose suitable materials and explain choices depending on characteristics. (From A to B) (Buildings) (Magic Toymaker) (Time travellers) *use finishing techniques to make product look good (From A to B) (Buildings) (Magic Toymaker) (Time travellers) *work safely and hygienically (From A to B) (Magic Toymaker) (Time travellers)	(From A to B) (Buildings) (Magic Toymaker) (Time travellers)					
3	*begin to research others' needs (Fashion) (Gateways to the World) * show design meets a range of requirements (Fashion) (Gateways to the World)	*select suitable tools/equipment, explain choices; begin to use them accurately (Fashion) (Gateways to the World) * select appropriate materials, fit for purpose. (Fashion)	* look at design criteria while designing and making (Fashion) (Gateways to the World) *use design criteria to evaluate finished product (Fashion)	*use appropriate materials (Fashion) (Gateways to the World) *work accurately to make cuts and holes (Fashion) (Gateways to the World)	*select appropriate tools / techniques (Gateways to the World) *alter product after checking, to make it better (Gateways to the World) *begin to try new/different ideas	*join different textiles in different ways (Fashion) (Gateways to the World) *choose textiles considering appearance and functionality	*use simple circuit in product (Gateways to the World) *learn about how to program a computer to control product. (Gateways to the World)	*carefully select ingredients (Scavengers and Settlers) *use equipment safely (Scavengers and Settlers) *make product look attractive



Year	Design	Make	Evaluate	Technical	Technical	Technical	Technical	Technical
				knowledge	knowledge –	knowledge –	knowledge –	knowledge – Food
				Materials/struc-	Mechanisms	Textiles	Electrical systems	and nutrition
				tures				
	* describe purpose of product (Fashion) (Gateways to the World) * follow a given design criteria (Fashion) (Gateways to the World) * have at least one idea about how to create product (Fashion) (Gateways to the World) * create a plan which shows order, equipment and tools (Fashion) (Gateways to the World) * describe design using an accurately labelled sketch and words (Fashion) (Gateways to the World) * make design decisions (Fashion) (Gateways to the World) * explain how product will work * make a prototype * begin to use computers to show design (Gateways to the World)	(Gateways to the World) * work through plan in order (Fashion) (Gateways to the World) * consider how good product will be (Fashion) (Gateways to the World) * begin to measure, mark out, cut and shape materials/componen ts with some accuracy (Fashion) (Gateways to the World) * begin to assemble, join and combine materials and components with some accuracy (Fashion) (Gateways to the World) * begin to apply a range of finishing techniques with some accuracy (Fashion) (Gateways to the World)	(Gateways to the World) * say what I would change to make design better (Fashion) (Gateways to the World) * begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose (Fashion) (Gateways to the World) * begin to understand by whom, when and where products were designed (Fashion) (Gateways to the World) * learn about some inventors/designers/ engineers/chefs/ manufacturers of ground-breaking products (Fashion) (Gateways to the World)	* join materials (Fashion) (Gateways to the World) * begin to make strong structures (Gateways to the World)	(Gateways to the World) *use simple lever and linkages to create movement (Gateways to the World)	(Fashion) (Gateways to the World) *begin to understand that a simple fabric shape can be used to make a 3D textiles (Gateways to the World)project (Fashion)		(Scavengers and Settlers) *think about how to grow plants to use in cooking *begin to understand food comes from UK and wider world *describe how healthy diet= variety/balance of food/drinks *explain how food and drink are needed for active/healthy bodies. *prepare and cook some dishes safely and hygienically (Scavengers and Settlers) *grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking (Scavengers and Settlers)



Year	Design	Make	Evaluate	Technical	Technical	Technical	Technical	Technical
	-			knowledge	knowledge –	knowledge –	knowledge –	knowledge – Food
				Materials/struc-	Mechanisms	Textiles	Electrical systems	and nutrition
				tures			•	
4	* use research for	* select suitable	*refer to design	*measure carefully	*select most	*think about user	*use number of	*explain how to be
	design ideas	tools and	criteria while	to avoid mistakes	appropriate tools /	when choosing	components in	safe/hygienic
	* show design meets	equipment, explain	designing and	*attempt to make	techniques	textiles	circuit	*think about
	a range of	choices in relation to	making (Different	product strong	*explain alterations	*think about how to	*program a	presenting product
	requirements and is	required techniques	Places, Similar Lives)	*continue working	to product after	make product strong	computer to control	in interesting/
	fit for purpose	and use accurately	*use criteria to	on product even if	checking it	* begin to devise a	product	attractive ways
	*begin to create	*select appropriate	evaluate product	original didn't work	*grow in confidence	template		(Different Places,
	own design criteria	materials, fit for	(Different Places,	*make a strong, stiff	about trying new /	*explain how to join		Similar Lives) (All
	*have at least one	purpose; explain	Similar Lives)	structure	different ideas.	things in a different		Aboard)
	idea about how to	choices	* begin to explain		*use levers and	way		*understand
	create product and	* work through plan	how I could improve		linkages to create	*understand that a		ingredients can be
	suggest	in order.	original design		movement	simple fabric shape		fresh, pre-cooked or
	improvements for	* realise if product is	(Different Places,		*use pneumatics to	can be used to make		processed (All
	design.	going to be good	Similar Lives)		create movement	a 3D textiles project		Aboard)
	* produce a plan and	quality	*evaluate existing					(Different Places,
	explain it to others	* measure, mark	products,					Similar Lives)
	*say how realistic	out, cut and shape	considering: how					*begin to
	plan is.	materials/componen	well they've been					understand about
	*include an	ts with some	made, materials,					food being grown,
	annotated sketch	accuracy	whether they work,					reared or caught in
	*make and explain	*assemble, join and	how they have been					the UK or wider
	design decisions	combine materials	made, fit for					world
	considering	and components	purpose (Different					*describe eat well
	availability of	with some accuracy	Places, Similar Lives)					plate and how a
	resources	*apply a range of	* discuss by whom,					healthy diet=variety
	*explain how	finishing techniques	when and where					/ balance of food
	product will work	with some accuracy.	products were					and drinks (All
	* make a prototype		designed (Different					Aboard)
	*begin to use		Places, Similar Lives)					
	computers to show		* research whether					*explain importance
	design.		products can be					of food and drink for
			recycled or reused					active, healthy
			recyclea or reased					bodies (Different
			* know about some					Places, Similar Lives)
			inventors/designers/					(All Aboard)
			engineers/chefs/ma					



Year	Design	Make	Evaluate	Technical	Technical	Technical	Technical	Technical
				knowledge	knowledge –	knowledge –	knowledge –	knowledge – Food
				Materials/struc-	Mechanisms	Textiles	Electrical systems	and nutrition
				tures				
			nufacturers of ground-breaking products (Different Places, Similar Lives)					*prepare and cook some dishes safely and hygienically (Different Places, Similar Lives) (All Aboard)
								*use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking (Different Places, Similar Lives) (All Aboard)
5	*use internet and questionnaires for research and design ideas *take a user's view into account when designing * begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose *create own design criteria * have a range of ideas	* use selected tools and equipment precisely *produce suitable lists of tools, equipment, materials needed, considering constraints * select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics * create, follow, and adapt detailed step- by-step plans	*evaluate quality of design while designing and making *evaluate ideas and finished product against specification, considering purpose and appearance. *test and evaluate final product * evaluate and discuss existing products, considering: how well they've been made, materials, whether they work	*select materials carefully, considering intended use of product and appearance *explain how product meets design criteria *measure accurately enough to ensure precision *ensure product is strong and fit for purpose *begin to reinforce and strengthen a 3D frame	*refine product after testing *grow in confidence about trying new / different ideas *begin to use cams, pulleys or gears to create movement	*think about user and aesthetics when choosing textiles *use own template * think about how to make product strong and look better *think of a range of ways to join things *begin to understand that a single 3D textiles project can be made from a combination of fabric shapes	*incorporate switch into product *confidently use number of components in circuit *begin to be able to program a computer to monitor changes in environment and control product	*explain how to be safe / hygienic and follow own guidelines (Earth as an Island) *present product well - interesting, attractive, fit for purpose (Earth as an Island) *begin to understand seasonality of foods (Earth as an Island) *understand food can be grown, reared or caught in the UK and the



Year	Design	Make	Evaluate	Technical	Technical	Technical	Technical	Technical
				knowledge	knowledge –	knowledge –	knowledge –	knowledge – Food
				Materials/struc-	Mechanisms	Textiles	Electrical systems	and nutrition
				tures			-	
	*produce a logical, realistic plan and explain it to others. *use cross-sectional planning and annotated sketches * make design decisions considering time and resources. *clearly explain how parts of product will work. *model and refine design ideas by making prototypes and using pattern pieces. *use computer- aided designs	*explain how product will appeal to audience; make changes to improve quality * accurately measure, mark out, cut and shape materials/componen ts * accurately assemble, join and combine materials/componen ts * accurately apply a range of finishing techniques * use techniques that involve a number of steps * be resourceful with practical problems	how they have been made, fit for purpose * begin to evaluate how much products cost to make and how innovative they are *research how sustainable materials are *talk about some key inventors/designers/ engineers/ chefs/manufacturers of ground-breaking products					wider world (Earth as an Island) *describe how recipes can be adapted to change appearance, taste, texture, aroma (Earth as an Island) *explain how there are different substances in food / drink needed for health (Earth as an Island) *prepare and cook some savoury dishes safely and hygienically including, where appropriate, use of heat source (Earth as an Island) * use range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. (Earth as an Island)
6	* draw on market research to inform	* use selected tools and equipment	*evaluate quality of design while	*select materials carefully.	*refine product after testing, considering	*think about user's wants/needs and	*use different types of circuit in product	*understand a recipe can be
	design (What Price	precisely (What	designing and	considering	aesthetics	aesthetics when	(What Price	adapted by adding /
	Progress) (The Story	Price Progress) (The	making: is it fit for	intended use of the	functionality and	choosing textiles	Progress	substituting
	of English)	Story of English)	nurnose? (What	nroduct the	nurnose (What Price	choosing textiles		ingredients
	of English)	Story of English)	purpose? (What	product, the	purpose (What Price			ingredients



Year	Design	Make	Evaluate	Technical	Technical	Technical	Technical	Technical
	-			knowledge	knowledge –	knowledge –	knowledge –	knowledge – Food
				Materials/struc-	Mechanisms	Textiles	Electrical systems	and nutrition
				tures				
	* use research of	*produce suitable	Price Progress) (The	aesthetics and	Progress) (The Story	(What Price	* think of ways in	*explain seasonality
	user's individual	lists of tools,	Story of English)	functionality.	of English)	Progress)	which adding a	of foods
	needs, wants,	equipment,	* keep checking	(What Price	*incorporate	*make product	circuit would	*learn about food
	requirements for	materials needed,	design is best it can	Progress) (The Story	hydraulics and	attractive and strong	improve product	processing methods
	design (What Price	considering	be. <b>(What Price</b>	of English)	pneumatics (What	(What Price	(What Price	*name some types
	Progress) (The Story	constraints (What	Progress) (The Story	*explain how	Price Progress)	Progress) (The Story	Progress)	of food that are
	of English)	Price Progress) (The	of English)	product meets	*be confident to try	of English)	* program a	grown, reared or
	<ul> <li>identify features</li> </ul>	Story of English)	*evaluate ideas and	design criteria	new / different	*make a prototype	computer to	caught in the UK or
	of design that will	* select appropriate	finished product	(What Price	ideas (What Price	(What Price	monitor changes in	wider world
	appeal to the	materials, fit for	against specification,	Progress) (The Story	Progress) (The Story	Progress) (The Story	environment and	*adapt recipes to
	intended user <mark>(What</mark>	purpose; explain	stating if it's fit for	of English)	of English)	of English)	control product	change appearance,
	Price Progress) (The	choices, considering	purpose (What Price	* reinforce and	*use cams, pulleys	*use a range of	(What Price	taste, texture or
	Story of English)	functionality and	Progress) (The Story	strengthen a 3D	and gears to create	joining techniques	Progress)	aroma.
	* create own design	aesthetics (What	of English)	frame (What Price	movement (What	(What Price		*describe some of
	criteria and	Price Progress) (The	*test and evaluate	Progress)	Price Progress)	Progress) (The Story		the different
	specification (What	Story of English)	final product;			of English)		substances in food
	Price Progress) (The	* create, follow, and	explain what would			*think about how		and drink, and how
	Story of English)	adapt detailed step-	improve it and the			product might be		they can affect
	* come up with	by-step plans (What	effect different			sold (What Price		health
	innovative design	Price Progress) (The	resources may have			Progress) (The Story		*prepare and cook a
	ideas (What Price	Story of English)	had (What Price			of English)		variety of savoury
	Progress) (The Story	*explain how	Progress) (The Story			*think carefully		dishes safely and
	of English)	product will appeal	of English)			about what would		hygienically
	*follow and refine a	to audience; make	*do thorough			improve product		including, where
	logical plan. (What	changes to improve	evaluations of			(What Price		appropriate, the use
	Price Progress) (The	quality (What Price	existing products			Progress) (The Story		of heat source.
	Story of English)	Progress) (The Story	considering: how			of English)		*use a range of
	*use annotated	of English)	well they've been			*understand that a		techniques
	sketches, cross-	* accurately	made, materials,			single 3D textiles		confidently such as
	sectional planning	measure, mark out,	whether they work,			project can be made		peeling, chopping.
	and exploded	cut and shape	how they've been			trom a combination		slicing, grating.
	diagrams (What	materials/componen	made, fit for			ot tabric shapes.		mixing, spreading
	Price Progress) (The	ts (What Price	purpose (What Price			(What Price		kneading and
	Story of English)	Progress) (The Story	Progress) (The Story			Progress)		baking.
	* make design	ot English)	ot English)					
	decisions,							



Year	Design	Make	Evaluate	Technical knowledge Materials/struc- tures	Technical knowledge – Mechanisms	Technical knowledge – Textiles	Technical knowledge – Electrical systems	Technical knowledge – Food and nutrition
	considering, resources and cost (What Price Progress) (The Story of English) * clearly explain how parts of design will work, and how they are fit for purpose (What Price Progress) (The Story of English) * independently model and refine design ideas by making prototypes and using pattern pieces (What Price Progress) (The Story of English) * use computer- aided designs (What Price Progress) (The Story of English)	* accurately assemble, join and combine materials/componen ts (What Price Progress) (The Story of English) * accurately apply a range of finishing techniques (What Price Progress) (The Story of English) * use techniques that involve a number of steps (What Price Progress) (The Story of English) * be resourceful with practical problems (What Price Progress) (The Story of English)	*evaluate how much products cost to make and how innovative they are (What Price Progress) (The Story of English) *research and discuss how sustainable materials are (What Price Progress) (The Story of English) *consider the impact of products beyond their intended purpose (What Price Progress) (The Story of English) *discuss some key inventors/designers/ engineers/ chefs/manufacturers of ground-breaking products (What Price Progress) (The					

### Intent

IPC units of study offer a coherently planned sequence of design technology lessons to help teachers ensure they have progressively covered the knowledge, understanding and skills required in the National Curriculum. Design and Technology through the IPC units of work aim to inspire children through a broad range of practical experiences to create innovative designs, which solve real and relevant problems within a variety of different contexts. The iterative design process is fundamental and runs throughout units of work. This iterative process encourages children to identify real and relevant problems, critically evaluate existing products and then take risks and innovate when designing and creating solutions to the problems. As part of the iterative process, time is built in to reflect, evaluate and improve on prototypes using design criteria throughout to support this process. Opportunities are provided for children to evaluate key events and individuals who have helped shape the world, showing the real impact of design and technology on the wider environment and helping to inspire children to become the next generation of innovators.

#### Implementation

Design and Technology skills and understanding are built into lessons, following an iterative process. However, this is not to say that this structure should be followed rigidly: it allows for the revision of ideas to become part of good practice and ultimately helps to build a depth to children's understanding. Through revisiting and consolidating skills, our lessons and resources help children build on prior knowledge alongside introducing new skills, knowledge and challenge. The IPC have suggested a specific series of lessons for each unit, which will offer structure and narrative but are by no means to be used exclusively, rather to support planning and to ensure National Curriculum content coverage. The diagram right demonstrates our approach to teaching each unit. The revision and introduction of key vocabulary is built into each lesson. This vocabulary is then included in display materials and additional resources to ensure that children are allowed opportunities to repeat and revise this knowledge. Adult guides and accurate design and technology subject knowledge are always provided within lessons to allow the teacher and adults working in those lessons to feel confident and supported with the skills and knowledge that they are teaching.

Through these lessons, we intend to inspire pupils and practitioners to develop a love of Design and Technology and see how it has helped shaped the ever-evolving technological world they live in.

#### Impact

The impact of using the full range of resources, including display materials, will be seen across the school with an increase in the profile of Design and Technology. The learning environment across the school will be more consistent with technical vocabulary displayed, spoken and used by all learners. Whole-school and parental engagement will be improved through the use of DT-specific home learning tasks and opportunities suggested in lessons and topic overviews for wider learning. We want to ensure that Design Technology is loved by teachers and pupils across school, therefore encouraging them to want to continue building on this wealth of skills and understanding, now and in the future. Impact can also be measured through key questioning skills built into lessons, formative assessment rubrics (aimed at targeting next steps in learning) which will lead to end of year summative assessments and end of year subject reviews that will inform the



