

Billing Achieve Succed

Skills progression: Design and Technology

	EYFS	Year 1	Year 2	Year	3	Year 4	Year 5	Year 6
				Substa	Intive Knowled	dge		
Developing, planning and communicating ideas	Begin to draw on their own experience to talk about ideas and plans. Begin to talk about the qualities of existing products: what they could be for and how they may work. Begin to understand that products are made for a target group. Begin to develop their ideas through talk and drawings	Begin to draw on their own experience to help generate ideas and research conducted on criteria Begin to understand the development of existing products: what they are for, how they work, materials used. Start to suggest ideas and explain what they are going to do Understand how to identify a target group for what they intend to design and make based on a design criteria Begin to develop their ideas through talk and drawings. Make templates and mock ups of their ideas in card and paper or using ICT	Start to generate ideas by drawing on their own and other people's experiences Begin to develop their design ideas through discussion, observation, drawing and modelling Identify a purpose for what they intend to design and make Understand how to identify a target group for what they intend to design and make based on a criteria Develop their ideas through talk and drawings and label parts. Make templates and mock ups of their ideas in card and paper or using ICT	With growing confidence generate ideas for an item, considering its purpose and the user/s Start to order the main stages of making a product. Identify a purpose and establish criteria for a successful product Understand how well products have been designed, made, what materials have been used and the construction technique Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products Start to understand whether products can be recycled or reused Know to make drawings with labels when designing -When planning explain their choice of materials and components including function and aesthetics	Start to generate considering the which they are of with Mathemati Confidently mak drawings from d showing specific Develop a clear has to be done, to use materials and processes, a alternative meth if the first attem the strengths an development in products When planning of views of others, intended users, their work Learn about inve designers, engin manufacturers w developed grout technology When planning of choice of materi components acc function and aes	e idas, purposes for lesigning – link cs and Science e labelled ifferent views features idea of what planning how , equipment and suggesting hods of making, pts fail. Identify d areas for their ideas and consider the including to improve entors, eers, chefs and who have hd-breaking explain their als and ording to	Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, protypes and pattern pieces Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose With growing confidence apply a range of finishing techniques including those from art and design Draw up a specification for their design-link with Mathematics and Science Use results of investigations, information sources, including ICT when developing design ideas With growing confidence select appropriate materials, tools and techniques Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their purpose	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes and pattern pieces Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose Accurately apply a range of finishing techniques including those from art and design Draw up a specification for their design – link to Mathematics and Science Plan the order of their work, choosing appropriate materials, tools and techniques Suggest alternative methods of making if the first attempts fail Identify the strengths and areas for development in their ideas and products Know how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose

Begin to make	Begin to make their	Begin to select	Select a wide range of	Select a wider range of	Select appropriate materials, tools	Confidently select appropriate
products using	design using	tools and	tools and techniques for	tools and techniques for	and techniques e.g. cutting,	tools, materials, components and
appropriate	appropriate	materials; use	making their product i.e.	making their product safely	shaping, joining and finishing,	techniques and use them
techniques.	techniques	correct	construction materials		accurately	techniques and use them
techniques.	teeninques	vocabulary to	and kits, textiles, food	Know how to measure,		Use tools safely and accurately
Being to build	Being to build	name and	ingredients and	mark out, cut and shape a	Select from and use a wider range	Ose tools safely and accurately
structures,	structures,	describe them	mechanical components	range of materials, using	of materials and components,	Assemble components to make
exploring how	,	describe them	mechanical components	appropriate tools,	including construction materials,	working models
1 0	exploring how they can be made	Build structures,	Explain their choice of		textiles and ingredients, according	working models
they can be improved or	stronger, stiffer and	exploring how	tools and equipment in	equipment and techniques	to their functional properties and	Aim to make and achieve a quality
changed.	more stable.	they can be made	relation to the skills and	Start to join and combine	aesthetic qualities	. ,
changeu.	more stable.	stronger, stiffer	techniques they will be	materials and components	aesthetic qualities	product
Evelone and	Fundama and usa	•		•		With confidence via coursed stitch
Explore and	Explore and use mechanisms	and more stable	using	accurately in temporary	Understand how mechanical	With confidence pin, sew and stitch
use products				and permanent ways	systems such as cams or pulleys or	materials together to create a
with wheels	(wheels) in their	With help	Start to understand that	Lindonator di barriano an	gears create movement	product
and	products	measure, cut and	mechanical systems such	Understand how more		Demonstrate when to make
mechanisms.	Mathe Inclusion and a sume	score with some	as levers and linkages or	complex electrical circuits	Know how more complex electrical	Demonstrate when to make
MCM- half and	With help measure,	accuracy. Learn to	pneumatic systems	and components can be	circuits and components can be	modifications as they go along
With help cut	mark out, cut and	use hand tools	create movement	used to create functional	used to create functional products	Constructions durate union
and shape a	shape a range of	safely and		products	and how to program a computer to	Construct products using
range of	materials	appropriately	Measure, mark out, cut,	Continue to loom to	monitor changes in the	permanent joining techniques
materials.	Four land to the stands	Chart the second bla	score and assemble	Continue to learn to	environment and control their	the devetex of basis are also start
Fuelese using	Explore using tools	Start to assemble,	components with more	program a computer to	products	Understand how mechanical
Explore using	e.g. scissors and a	join and combine	accuracy	monitor changes in the		systems such as cams or pulleys or
simple tools.	hole punch safely	materials in order	Start to work safely and	environment and control	Understand that mechanical and	gears to create movement
Dogin to join	Begin to assemble,	to make a product	accurately with a range of	their products Understand how to	electrical systems have an input,	Know how more complex electrical
Begin to join and combine	ioin and combine	Demonstrate how			process and output	Know how more complex electrical circuits and components can be
materials	materials and	to cut, shape and	tools	reinforce and strengthen a 3D framework. Now sew	Begin to measure and mark out	used to create functional products
	components	join fabric to	Start to think about their	using a range of different	more accurately	and how to program a computer to
using a variety of temporary	together using a	produce a simple	ideas as they make	stitches to wave and knit	more accurately	monitor changes in the
methods e.g.	variety of	product. Use basic	progress and be willing to	stitches to wave and knit	Demonstrate how to use skills in	environment and control their
masking tape.	temporary methods	sewing	change things if this helps	Demonstrate how to	using different tools and	products
masking tape.	e.g. glues or	techniques	them to improve their	measure, tape or pin, cut	equipment safely and accurately	products
Begin to add	masking tape	icenniques	work	and join with some	with growing confidence cut and	Know how to reinforce and
simple details	masking tape	Start to choose	WORK	accuracy	join with accuracy to ensure a	strengthen a 3D framework
to improve	Begin to use simple	appropriate	Start to measure, tape, or		good-quality finish to the product	
the	finishing techniques	finishing	pin, cut and join fabric	Begin to use finishing		Understand that mechanical and
appearance of	to improve the	techniques based	with some accuracy	techniques to strengthen	Weigh and measure accurately	electrical systems have an input,
their product.	appearance of their	on own ideas	with some accuracy	and improve the	(time, dry ingredients and liquids)	process and output
	product			appearance of their		
	p. 00000			product using a range of	Use finishing techniques to	Use finishing techniques to
					strengthen and improve the	strengthen and improve the
				equipment including ICT	strengthen and improve the appearance of their product using a range of equipment including ICT	strengthen and improve the appearance of their product using a range of equipment including ICT

prod discu how show succe they Whe at ex prod expla	uate their duct by ussing v saying or wing how cessful v feel it is. en looking xisting ducts lain if they and dislike m.	Start to evaluate their product by discussing how well it works in relation to the purpose (design criteria) When looking at existing products explain what they like and dislike about products and why Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make	Evaluate their work against design criteria Look at a range of existing products explain what they like and dislike about products and why Start to evaluate their products as they are developed, identifying strengths and possible changes they might make With confidence, talk about their ideas, saying what they like and dislike about them	Start to evaluate their product against original design criteria e.g. how well it meets its intended purpose Begin to disassemble and evaluate familiar products and consider the views of others to improve them Evaluate the key designs of individuals in design and technology which have helped to shape the world	Evaluate their products carrying out appropriate tests Start to evaluate their work both during and at the end of the assignment Be able to disassemble and evaluate familiar products and consider the views of others to improve them Evaluate the key designs of individuals in design and technology which has helped shape the world	Start to evaluate a product against the original design specification and by carrying out tests Evaluate their work both during and at the end of the assignment Begin to evaluate it personally and seek evaluation from others Evaluate the key designs of individuals in design and technology who have helped to shape the world	Evaluate their products, identifying strengths and areas for development and carrying out appropriate tests Evaluate their work both during and at the end of the assignment Record their evaluations using drawings with labels Evaluate against their own criteria and suggest ways in which their product could be improved Evaluate the key designs of individuals in design and technology which have helped shape the world
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Be able to	Begin to understand	Understand	Start to know that food is	Understand that food is	Understand that food is grown	Know that food is grown (such
name some	that all food comes	that all food	grown (such as tomatoes,	grown (such as tomatoes,	(such as tomatoes, wheat and	as tomatoes, wheat and
food which	from plants or	comes from	wheat and potatoes), reared	wheat and potatoes), reared	potatoes), reared (such as pigs,	potatoes), reared (such as pigs,
comes from	animals	plants or	such as pigs, chickens and	(such as pigs, chickens and	chickens and cattle) and caught	chickens and cattle) and caught
plants or		animals	cattle) and caught (such as fish)	cattle) and caught (such as	(such as fish) in the UK, Europe and	(such as fish) in the UK, Europe
animals.	Explore the		in the UK, Europe and the	fish) in the UK, Europe and	the wider world	and the wider world
	understanding that	Know that	wider world	the wider world		
Start to	food has to be	food has to be			Begin to understand that season	Understand that seasons may
understand	farmed, grown	farmed,	Understand how to prepare	Understand how to prepare	may affect the food available -	affect the food available.
that people	elsewhere or caught	grown or	and cook a variety of	and cook a variety of	Understand how food is processed	
should eat a		caught	predominantly savoury dishes	predominantly savoury	into ingredients that can be eaten	Understand how food is
mixture of	Start to understand		safely and hygienically	dishes safely and hygienically	or used in cooking	processed into ingredients that
foods- 'The	how to name sort	Understand	including, where appropriate,	including, where appropriate,		can be eaten or used in cooking
Eat Well	foods into the five	how to name	the use of a heat source	the use of a heat source	Know how to prepare and cook a	
Plate.'	groups in 'The Eat	and sort food			variety of predominantly savoury	Know how to prepare and cook
	Well Plate'	into the five	Begin to understand how to	Know how to use a range of	dishes safely and hygienically	a variety of predominantly
Begin to		groups in 'The	use a range of techniques such	techniques such as peeling,	including, where appropriate, the	savoury dishes safely and
understand	Begin to understand	Eat Well	as peeling, chopping, slicing,	chopping, slicing, grating,	use of a heat source	hygienically including, where
that everyone	that everyone	Plate'	grating, mixing, spreading,	mixing, spreading, kneading		appropriate, the use of a heat
should eat	should eat at least		kneading and baking	and baking	Start to understand how to use a	source
fruit and	five portions of fruit	Know that			range of techniques such as	
vegetables	and vegetables	everyone	Start to understand that a		peeling, chopping, slicing, grating,	Understand how to use a range
every day.	every day	should eat at	healthy diet is make up from a	Know that a healthy diet is	mixing, spreading, kneading and	of techniques such as peeling,
, ,	, ,	least five	variety and balance of different	made up from a variety and	baking	chopping, slicing, grating,
Know how to	Know how to	portions of	food and drink, as depicted in	balance of different food and	Begin to understand that difference	mixing, spreading, kneading and
prepare	prepare simple	fruit and	'The Eat Well Plate' -Begin to	drink, as depicted in 'The Eat	food and drink contain difference	baking
simple dishes	dishes safely and	vegetables	know that to be active and	Well Plate' -Begin to know	substances - nutrients, water and	0
safely and	hygienically,	every day	healthy, food and drink are	that to be active and healthy,	fibre – that are needed for health	Know different food and drink
hygienically,	without using a heat		needed to provide energy for	food and drink are needed to		can contain different
without using	source.	Demonstrate	the body	provide energy for the body		substances – nutrients, water
a heat source.		how to		p		and fibre – that are needed for
	Know how to use	prepare				health
Know how to	techniques such as	simple dishes				heaten
use	cutting, peeling and	safely and				
techniques	grating	hygienically,				
such as	0. 300 0	without using				
peeling.		a heat source				
Peciling.		a near source				
		Demonstrate				
		how to use				
		techniques				
		such as				
		cutting,				
		0,				
		peeling and				
		grating			1	

Cooking and Nutrition

	Disciplinary Knowledge	
Year 1	Year 3	Year 5
Drawing on previous experiences of eating	Explore a range of items – talk about why we use the products	Create plans in a range of ways/steps – discuss ideas in groups, draw
gingerbread, playing with toy cars, seeing bunting	and who would use the products.	plans, make mock ups and prototypes
displayed.	Sort instructions into the correct order.	Research similarities and differences of existing products. How have
Which gingerbread. toy car, bunting is the best?	Act out making a product.	some products been changed to develop them from others? How do
Explore existing products.	Make 'How to' videos.	we know how to use the products? What makes the product attracti
Discuss why people purchase and eat gingerbread,	Write sets of instructions.	to the consumer?
buy and play with toy cars, buy and display bunting.	Make class lists of what makes a product successful e.g what	Research finishing techniques of the chosen products. Consider color
Explore how each product is used.	makes ipads great?	shape size etc.
Create ideas for your own product inspired by these.	Make a list for the intended product.	Work together to make a list of design specification that may have
Discuss/Survey who eats/uses pizza, toy mini and	Explore inventors such as Dyson, Wright Brothers etc	been given for existing products. Then create a list for their product.
puppets. (1)	Bring in existing products. Evaluate why these products are	Perhaps provide a list for them to decide if the specification is neede
Discuss/Survey who buys gingerbread, toy cars and	successful	or not.
bunting. (2)	Research inventors, designers, engineers, chefs and	Research inventors, designers, engineers, chefs and manufacturers a
Collect ideas as to how the designs of each product	manufacturers. Make fact sheets, videos, give speeches to each	how they developed their ideas. E.g Dyson and the Wright Brothers.
make people want to buy them.	other about them.	Test out materials in FPT.
Make a paper/playdough version of their	Look at packaging of products. Match the symbols to their	Provide an array of suitable and not so suitable items so that the
gingerbread design.	meanings.	children are making independent choices.
5 5 5	5	0
Make a mock up of their vehicle – Lego?	Complete a survey of the products at home.	Create a price for each item/tool given so that the children can
Make a paper plan of their bunting.	Create diagrams when designing a pie, a chariot and a piece of coloured clothing.	calculate the cost of their products.
Year 2	When completing diagrams, annotate each material choice.	Year 6
Discuss/Survey who eats/uses pizza, toy mini and	Sorting activities, which material could be used a given product?	Create plans in a range of ways/steps – discuss ideas in groups, draw
puppets. (1)	Why or why not?	plans, make mock ups and prototypes
Discuss/Survey who buys gingerbread, toy cars and		Research similarities and differences of existing products. How have
bunting. (2)	Year 4	some products been changed to develop them from others? How do
Collect ideas as to how the designs of each product	Explore a range of products. What is the purpose for each	we know how to use the products? What makes the product attracti
make people want to buy them.	product? E.g types of lamp and lantern	to the consumer?
Drawing on previous experiences of eating pizzas,	Create diagrams when designing a rainforest product and a	Research finishing techniques of the chosen products. Consider color
playing mini golf or with puppets.	lantern.	shape size etc.
Which gingerbread, mini golf course, puppet is the	When completing diagrams, annotate each material choice.	Work together to make a list of design specification that may have
best? Explore existing products.	Sorting activities, which material could be used a given product?	been given for existing products. Then create a list for their product.
Make a paper design of their pizza.	Why or why not?	Perhaps provide a list for them to decide if the specification is needed
Make a drawing of their mini golf course.	Add annotations in a different colour to show any changes	or not.
Make a paper mock-up of their puppet.	decided whilst making the product.	Create a price for each item/tool given so that the children can
Discuss the reasons people eat pizza, play mini golf,	Complete an evaluation of each product produced. Compete	calculate the cost of their products.
use puppets.	peer assessment to support this.	Sort pictures in order of instruction steps.
Explain what they are going to create.	Complete a group meeting when planning each product shared	Act of making products.
Make a paper design of their pizza.	each other's ideas about the planned designs. Adjust as	Write sets of instructions.
Make a drawing of their mini golf course.	appropriate.	Provide given points to evaluate how the making of their product is
Make a paper mock-up of their puppet.	Research inventors, designers, engineers, chefs and	going. Peer assess/chare ideas with each other.
make a paper mock-up of men pupper.	nesearch inventors, designers, engineers, chers and	בטוווק. רכבו מששבשארנוומוב ועבמש שונוו פמנוו טנוופו.
	manufacturers. Make fact sheets, videos, give speeches to each	

	Year 1	Year 3	Year 5
, and e	Making a toy car	Making a pie.	Making a 'Make and mend' product.
ls, s a ake	Making bunting	Making a model chariot.	Making a shaduf.
with tools, materials a nts to mak products	Making a cardboard mini golf course	Making a piece of coloured clothing.	Making a snack bar.
h t du	Making a puppet		
wit na its		Exploring toys with mechanics, levers and linkages and	Year 6
	Year 2	pneumatic systems.	Making a fairground ride.
Workinç equipment compone quality	Making a cardboard mini golf course		Making a Greek meze.
np mg	Making a puppet	Year 4	
		Making a textile to tell a story.	
e e e		Making a rainforest cookie.	
		Making a lantern.	

	Year 1	Year 3	Year 5
	Explore, discuss and evaluate gingerbread,	Bring in, explore and evaluate pies, wheeled toys	Annotate/make comments in a journal during the making process comparing the current
	toy cars and bunting.	and coloured clothing.	product to the design.
	Build sentences 'I like this product because'	Disassemble wheeled toys and coloured clothing.	
	and 'I do not like this product because'	Research achievements of given individuals – How	Give children given points to evaluate how their work is going. Children should annotate in a
	When working on their product stop at	has their work changed the world?	given colour on their designs and plans to show the reflection and changes made.
	certain points to allow the children to reflect		
	on how things are going. If a design choice is	Year 4	Give children given points to evaluate how their work is going. Children should annotate in a
	changed ask the children to note the change	Link to the tests completed on 'The Rocket'.	given colour on their designs and plans to show the reflection and changes made.
	and the reason for the change.	Compile a list of tests/checks that will be	
	× •	completed after the product is made.	Research inventors, designers, engineers, chefs and manufacturers and how they developed
	Year 2	Give children given points to evaluate how their	their ideas. E.g Dyson and the Wright Brothers.
ts	When working on their product stop at certain points to allow the children to reflect	work is going. Children should annotate in a given colour on their designs and plans to show the	
ы Н	on how things are going. If a design choice is	reflection and changes made.	Test out materials in FPT.
ğ	changed ask the children to note the change	Disassemble lanterns/lamps.	Compile a list of tests/checks that will be completed after the product is made.
products	and the reason for the change.	Disassemble lancerns/lamps.	
- 5	Create a class criterion for a successful		Year 6
and	product. Check their product against this		
	criterion once they have completed their		Give children given points to evaluate how their work is going. Children should annotate in a
Se	design.		given colour on their designs and plans to show the reflection and changes made.
6 S	C		
8			Research inventors, designers, engineers, chefs and manufacturers and how they developed
ă			their ideas. E.g Dyson and the Wright Brothers.
Evaluating processes			Test out materials in FPT.
÷			Compile a list of tests/checks that will be completed after the product is made.
Ца			
a			Give children given points to evaluate how their work is going. Children should annotate in a
Ъ			given colour on their designs and plans to show the reflection and changes made.
			Annotate/make comments in a journal during the making process comparing the current
			product to the design.
			Work together to make a list of design specification that may have been given for existing
			products. Then create a list for their product. Perhaps provide a list for them to decide if the
			specification is needed or not.
			specification is needed of not.
			Annotate/make comments in a journal during the making process comparing the current
			product to the design.

Year 1	Year 3	Year 5 and Year 6
Matching food to the plant or place that It comes from. Matching	Sorting food into its source.	Sorting food into its source.
meat and animal products from the animal it comes from.	Writing explanations.	Writing explanations.
Research the source of food e.g link to Harvest	Making pies.	
Sort food by group	Sorting food into food groups.	Links to Harvest.
Create a healthy meal/menu	Writing explanations.	Researching imports and exports.
Harvest songs	Designing a menu/meal.	
Explore ways fruit and vegetables help the body	Make a healthy eating leaflet/menu.	Sorting food into its source.
Sort fruit and vegetables	Describe/sort which food and drinks are healthy and which provide	Researching products e.g how wheat becomes flour.
Keep a fruit and vegetable diary	energy.	
Making gingerbread dough		Making a snack bar/Greek Meze.
Making pizzas		Research the ingredients in snack bars.
	Year 4	Research the ingredients in a Greek Meze. Link to the
Year 2	Sorting food into its source.	Eat Well plate.
Making gingerbread dough	Writing explanations.	
Making pizzas	Making cookies.	
Matching food to the plant or place that It comes from. Matching		
meat and animal products from the animal it comes from.		
Research the source of food e.g link to Harvest		
Sort food by group		
Create a healthy meal/menu		
Harvest songs		
Explore ways fruit and vegetables help the body		
Sort fruit and vegetables		
Keep a fruit and vegetable diary		
Making pizzas.		