

## St Newlyn East Learning Academy DT Disciplinary knowledge progression EYFS/KS1/KS2



<u>EYFS</u>	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			ncept 1: Desig			
			g contexts, users, a			
F		nerating, developin				Mark
Expressive	Work	Work	Work	Work	Work	Work
arts and	confidently within a range	confidently within a range	confidently within an	confidently within an	confidently within an	confidently within an
design – Being imaginative	of contexts,	of contexts,	increasing	increasing	increasing	increasing
iiiiagiiiative	such as	such as	range of	range of	range of	range of
To use what	imaginary,	imaginary,	contexts,	contexts,	contexts, such	contexts, such
they have	story-based,	story-based,	such as the	such as the	as the home,	as the home,
learnt about	home, school,	home, school,	home,	home,	school,	school,
media and	gardens,	gardens,	school,	school,	leisure,	leisure,
materials in	playgrounds,	playgrounds,	leisure,	leisure,	culture,	culture,
original ways,	local	local	culture,	culture,	enterprise,	enterprise,
thinking	community,	community,	enterprise,	enterprise,	industry and	industry and
about uses	industry and	industry and	industry and	industry and	the wider	the wider
and purposes.	the wider	the wider	the wider	the wider	environment.	environment.
	environment.	environment.	environment.	environment.		
Represent					Describe the	Describe the
their own	State what	State what	Describe the	Describe the	purpose of	purpose of
ideas,	products they	products they	purpose of	purpose of	their	their
thoughts and	are designing	are designing	their	their	products.	products.
feelings	and making.	and making.	products.	products.		
through					Indicate the	Indicate the
design and	Say whether	Say whether	Indicate the	Indicate the	design	design
technology.	their products	their products	design	design	features of	features of
	are for	are for	features of	features of	their products	their products
	themselves or	themselves or	their	their	that will	that will
	other users.	other users.	products that	products that	appeal to	appeal to
			will appeal to	will appeal to	intended	intended
	Describe what	Describe what	intended	intended	users.	users.
	their products	their products	users.	users.	Fundain have	Fundain havv
	are for.	are for.	Explain how	Evalain how	Explain how	Explain how
	Say how their	Say how their	particular	Explain how particular	particular parts of their	particular parts of their
	products will	products will	parts of their	particular parts of their	products	products
	work.	work.	products	products	work.	work.
	WOTK.	WOTK.	work.	work.	WOTK.	WOTK.
	Say how they	Say how they	7.51.11.		Identify the	Identify the
	will make their	will make their	Gather	Gather	needs, wants,	needs, wants,
	products	products	information	information	preferences	preferences
	suitable for	suitable for	about the	about the	and values of	and values of
	their intended	their intended	needs and	needs and	particular	particular
	users.	users.	wants of	wants of	individuals	individuals
			particular	particular	and groups.	and groups.
	Follow a simple	Use simple	individuals	individuals		
	design criteria	design criteria to help	and groups.	and groups.		
		-				

I <b>-</b> .		l			l <b>-</b> ,
To generate	develop their	Use pre-	Use pre-given	Take user's	Take user's
ideas by	ideas.	given	prototypes to	views into	views into
drawing on	To think of	prototypes to	discuss	account when	account when
their own	their own ideas	discuss	design ideas.	designing.	designing.
experiences.	and explain	design ideas.			
	what they		Use	Considering	Indicate the
	want to do.	Use	annotated	safety and	design
		annotated	sketches,	reliability.	features of
	Describe their	sketches,	cross-		their products
	design using	cross-	sectional	Describe the	that will
	pictures, model	sectional	drawings and	purpose of	appeal to
				their products	intended
	mock-ups and	drawings and	exploded		
	words.	exploded	diagrams to	explain how	users.
		diagrams to	develop and	particular	Considering
	Develop and	develop and	communicate	parts of their	safety and
	communicate	communicate	their ideas.	products	reliability.
	ideas verbally	their ideas.		work.	
	and through		Generate		Describe the
	labelled	Generate	realistic	Test their	purpose of
	drawings.	realistic	ideas,	ideas using	their products
	_	ideas,	focusing on	prototypes	explain how
		focusing on	the needs of	and pattern	particular
		the needs of	the user.	pieces in	parts of their
		the user.	the asen	order to	products
		the aser.	Make design	develop and	work.
		Make decign	decisions that	improve their	WOIK.
		Make design			Task thain
		decisions	take account	ideas.	Test their
		that take	of the		ideas using
		account of	availability of	Communicate	prototypes
		the	resources.	design ideas	and pattern
		availability of		in a variety of	pieces in
		resources.		ways	order to
				including	develop and
				verbally,	improve their
				written, using	ideas.
				annotated	
				sketches,	Communicate
				cross-	design ideas
				sectional	in a variety of
				drawings and	ways
				exploded	including
				diagrams to	verbally,
				_	
				develop and	written, using
				communicate	annotated
				their ideas.	sketches,
					cross-
				Use	sectional
				computer-	drawings and
				aided design	exploded
				to develop	diagrams to
				and	develop and
				communicate	communicate
				their ideas.	their ideas.
				Make design	Use
				decisions,	computer-
				taking	aided design

					account of constraints such as time, resources and cost.  Justify their decisions about materials and methods of constructions.	to develop and communicate their ideas.  Make design decisions, taking account of constraints such as time, resources and cost.  Justify their decisions about materials and methods of constructions.
			oncept 2: Mak			
		KS1: Mechanism	•		es	
					ood and textiles	
	NJ2. Wicchain	cai systems, ele	Planning	s, structures, re	Jou and textiles	
		Practi	cal skills and tech	niques		
Exploring	Select	Select	Select tools	Select tools	Select tools	Select tools
media and	appropriate	appropriate	and	and	and equipment	and equipment
materials	tools and	tools and	equipment	equipment	suitable for the	suitable for the
	materials to	materials to	suitable for	suitable for	task.	task.
Safely use and	use and why.	use and why.	the task.	the task.		
explore a					Explain their	Explain their
variety of	Use tools	Use tools	Select	Explain their	choice of tools	choice of tools
materials, tools and	safely.	safely.	materials and	choice of tools and	and equipment in relation to	and equipment in relation to
techniques,	Plan by	Plan by	components	equipment	the skills and	the skills and
experimenting	suggesting	suggesting	suitable for	in relation to	techniques	techniques
with colour,	what to do	what to do	the task.	the skills and	they will be	they will be
design,	next and how	next and how		techniques	using.	using.
texture, form,	to progress as	to progress as	Order the	they will be	J	J
and function;	their ideas	their ideas	main stages	using.	Select	Explain their
	develop.	develop.	of making.		materials and	choice of
Share their				Select	components	materials and
creations,	Select from a	Select from a	Apply	materials	suitable for the	components
explaining the	range of tools	range of tools	knowledge	and	task.	according to
process they have used.	and	and	in order to follow	components suitable for	Evalain thair	functional properties and
nave useu.	equipment, explaining	equipment, explaining	procedures	the task.	Explain their choice of	aesthetic
	their choices.	their choices.	for safety	the task.	materials and	qualities.
	inen choices.	lineir criorecs.	and hygiene.		components	quantico
				Order the	according to	
			Apply	main stages	functional	
			measuring,	of making.	properties and	
			marking and		aesthetic	
			cutting skills		qualities.	

Select from a	Select from a	with some	Apply	Produce	Produce
range of	range of	accuracy.	knowledge	appropriate	appropriate
materials and	materials and		in order to	lists of tools,	lists of tools,
components	components	Assemble,	follow	equipment and	equipment and
according to	according to	join and	procedures	materials that	materials that
their	their	combine	for safety	they need.	they need.
characteristics.	characteristics.	materials	and hygiene.		
		and		Formulate	Formulate
Select from a	Select from a	components	Apply	step-by-step	step-by-step
range of tools	range of tools	with some	measuring,	plans as a	plans as a
and materials	and materials	accuracy.	marking and	guide to	guide to
with help, e.g.	with help, e.g.		cutting skills	making.	making.
hole punches,	hole punches,	Select the	with some		
hand drills,	hand drills,	correct tools	accuracy.	Work from a	Work from a
sandpaper.	sandpaper.	to use with		detailed plan.	detailed plan.
		different	Assemble,		
Follow	Follow	materials.	join and	Apply	Apply
procedures for	procedures for		combine	knowledge in	knowledge in
safety and	safety and	Apply a	materials	order to follow	order to follow
hygiene.	hygiene.	range of	and	procedures for	procedures for
		finishing	components	safety and	safety and
Choose	Choose	techniques,	with some	hygiene.	hygiene.
materials and	materials and	including	accuracy.		
techniques to	techniques to	those from	·	Accurately	Accurately
suit purpose	suit purpose	art and	Select the	apply skills to	apply skills to
and be able to	and be able to	design, with	correct tools	measure, mark	measure, mark
explain	explain	some	to use with	out, cut and	out, cut and
reasons for	reasons for	accuracy.	different	shape	shape
their choices.	their choices.		materials.	materials and	materials and
				components.	components.
Make an	Make an		Apply a	·	
object with	object with		range of	Accurately	Accurately
simple moving	simple moving		finishing	assemble, join	assemble, join
parts.	parts.		techniques,	and combine	and combine
	·		including	materials and	materials and
Choose	Choose		those from	components.	components.
appropriately	appropriately		art and	·	·
from simple	from simple		design, with	Demonstrate	Demonstrate
finishing	finishing .		some	resourcefulness	resourcefulness
techniques,	techniques,		accuracy.	when tackling	when tackling
including	including		,	practical	practical
those from art	those from art			problems.	problems.
and design in	and design in			•	•
order to	order to			Applying	Applying
enhance their	enhance their			knowledge of	knowledge of
products.	products.			materials and	materials and
	•			tools to solve	tools to solve
				problems they	problems they
				encounter.	encounter.
				<del></del>	
				Accurately	Accurately
				apply a range	apply a range
				of finishing	of finishing
				techniques,	techniques,
				including those	including those
				from art and	from art and
				design	design
				~CO.D.1	~~~.D.1

		e.g. collage,	e.g. collage,
		paint to	paint to
		enhance the	enhance the
		appearance of	appearance of
		their product.	their product.
		Use techniques	Use techniques
		that involve a	that involve a
		number of	number of
		steps.	steps.

	Concept 3: Analyse and Evaluate							
		0	wn ideas and produc	cts				
Own ideas and	Own ideas and	Own ideas and	Existing products Own ideas and	Own ideas and	Own ideas and	Own ideas and		
products	products	products	products	products	products	products		
Talk about	Talk about	Talk about	Identify the	Identify the	Identify the	Identify the		
their design	their design	their own work	strengths and	strengths and	strengths and	strengths and		
and what they	ideas and what	identifying likes	areas for	areas for	areas for	areas for		
are making.	they are	and dislikes of	development in	development in	development in	development in		
a.c.mam.g.	making.	the design.	their ideas and	their ideas and	their ideas and	their ideas and		
With support,	3		products and	products and	products and	products and		
identify what	Make simple	Make simple	explain why.	explain why.	explain why.	explain why.		
they like and	judgements	judgements	, ,	, ,	,	,		
dislike of their	about their	about their	Consider the	Consider the	Consider the	Consider the		
design.	products and	products and	views of	views of	views of	views of		
	ideas against	ideas against	others,	others,	others,	others,		
	design criteria.	design criteria.	including	including	including	including		
			intended users,	intended users,	intended users,	intended users,		
	Suggest how	Suggest how	to improve	to improve	to improve	to improve		
	their designs	their designs	their work	their work	their work	their work		
	and products	and products						
	could be	could be	With support,	With support,	Critically	Critically		
	improved.	improved.	suggest	suggest	evaluate the	evaluate the		
			alternative	alternative	quality of the	quality of the		
	Talk about	Talk about how	ways to make	ways to make	design,	design,		
	their own work	closely their	their products	their products	manufacture	manufacture		
	identifying likes	finished	or how their	or how their	and fitness for	and fitness for		
	and dislikes of	product meets	products could	products could	purpose of	purpose of		
	their design.	their design	be improved.	be improved.	their products	their products		
		criteria.			as they design	as they design		
	Identify what		Talk about how	Use what the	and make.	and make.		
	they could	Identify ways	closely their	work of famous				
	have done	to improve	finished	inventors and	Evaluate their	Evaluate their		
	differently to	their design by	product meets	engineers to influence and	ideas and products	ideas and products		
	improve their work in the	reflecting on the design	their design criteria.	inspire their	against their	against their		
	future.	brief.	Criteria.	own design	original design	original design		
	Tuture.	brier.	Use what the	process.	specification	specification		
Existing	Existing	Existing	work of famous	process.	suggesting	suggesting		
products	products	products	inventors and		things they	things they		
When	Talk about	Talk about	engineers to		would do	would do		
prompted,	their ideas,	their ideas,	influence and		differently next	differently next		
suggest	saying what	saying what	inspire their		time.	time.		
improvements	they like and	they like and	own design					
to existing	dislike.	dislike and	process.		Use what the	Use what the		
designs.		explain why.			work of famous	work of famous		
	Pupils use their				inventors and	inventors and		
	investigative	Identify what			engineers to	engineers to		
	skills to	they could			influence and	influence and		
	describe and	have done			inspire their	inspire their		
	analyse existing	differently to			own design	own design		
	products	improve their			process.	process.		
	relating their	work in the						
	findings to	future.						
	their own ideas		Existing	Existing	Existing	Existing		
	for products.		products	products	products	products		
			Investigate and	Investigate and	Investigate and	Investigate and		

		investigative skills to describe and analyse existing products relating their findings to their own ideas for products.	questions such as: - who designed and made the products - where products were designed and made - when were these products designed and made - whether products can be recycled or reused - what is the intended purpose of the product	questions such as: - who designed and made the products - where products were designed and made - when were these products designed and made - whether products can be recycled or reused - what is the intended purpose of the product	products by asking questions such as: - how much products cost to make - how innovative products are - how sustainable the materials in products are -what impact products have beyond their intended purpose	products by asking questions such as: - how much products cost to make - how innovative products are - how sustainable the materials in products are -what impact products have beyond their intended purpose
		C	oncept 4: Textile	•		
Look at	Understand the	Understand the	Make informed	Make informed	Uso nattorns	Lico pattorns
Look at different	Understand the difference	Understand the difference	Make informed choices from	Make informed choices from	Use patterns and prototypes	Use patterns and prototypes
stitches on	between	between	the sewing	the sewing	to try out	to try out
sewing cards.	running stitch and basting	running stitch and basting	stiches they have learned in	stiches they have learned in	ideas.	ideas.
	stitch and apply.  Understand that a 3D textiles product can be assembled from two identical fabric shapes.	stitch and apply.  Understand that a 3D textiles product can be assembled from two identical fabric shapes.	order to join fabrics and/or add embellishment and decoration (applique).  Apply decoration to their work using buttons, beads, sequins.  Choose from a small range of fabrics according to properties, purpose, ease of working, aesthetics.	order to join fabrics and/or add embellishment and decoration (applique).  Apply decoration to their work using buttons, beads, sequins.  Choose from a small range of fabrics according to properties, purpose, ease of working, aesthetics.	Make informed choices from the sewing stiches they have learned in order to join fabrics and/or add embellishment and decoration (applique)	They make informed choices from the sewing stiches they have learned in order to join fabrics and/or add embellishment and decoration (applique)

	Concept 4: Cooking and Nutrition							
Apply knowledge of healthy eating to identify healthy food for themselves.	Apply knowledge of healthy eating to plan a balanced meal for themselves.  Follow procedures for safety and hygiene for the skills learned.  Follow a simple recipe applying skills learned.  Know that food ingredients should be combined according to their sensory characteristics.	Apply knowledge of healthy eating to plan a balanced meal for themselves.  Follow procedures for safety and hygiene for the skills learned.  Follow a simple recipe applying skills learned.  Know that food ingredients should be combined according to their sensory characteristics.	Apply knowledge of healthy eating to plan a balanced diet.  Use their knowledge of seasonality and food miles to influence their choice of ingredients when designing.  Follow procedures for safety and hygiene.  Know when to use a bridge or a claw technique when cutting soft and hard food.  Follow a recipe applying skills learned.	Apply knowledge of healthy eating to plan a balanced diet.  Use their knowledge of seasonality and food miles to influence their choice of ingredients when designing.  Follow procedures for safety and hygiene.  Know when to use a bridge or a claw technique when cutting soft and hard food.  Prepare ingredients hygienically and using the appropriate utensils by following a recipe.	Use their understanding of dietary needs and how they differ to design a meal for an individual (athlete, older person, child etc).  Choose ingredients with a growing awareness of conservation, seasonality, sustainability and animal welfare.  Independently select equipment appropriate to the task.  Be able to explain their choices.  Begin to use their time efficiently e.g: wash up or cut toppings whilst waiting for a pie to cook.  Create and refine recipes, including ingredients, methods, cooking times and temperatures.	Use their understanding of dietary needs to design a meal for an individual (athlete, older person, child, soldier etc).  Choose ingredients with a growing awareness of conservation, seasonality, sustainability and animal welfare.  Independently select equipment appropriate to the task.  Be able to explain their choices.  Begin to use their time efficiently e.g: wash up or cut toppings whilst waiting for a pie to cook.  Create and refine recipes, including ingredients, methods, cooking times and temperatures.  Understand that a recipe can be adapted by adding or substituting one or more ingredients.		

	I		
		Understand	
		that a recipe	Understand
		can be adapted	that recipes
		by adding or	can be adapted
		substituting	to change the
		one or more	appearance,
		ingredients.	taste, texture
			and aroma.
		Understand	
		that recipes	Understand
		can be adapted	importance of
		to change the	correct storage
		appearance,	and handling of
		taste, texture	ingredients.
		and aroma.	
		Understand	
		importance of	
		correct storage	
		and handling of	
		ingredients.	



## St Newlyn East Learning Academy DT Substantive knowledge progression EYFS/KS1/KS2



composites	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design			Components (	e.g. specific lear	ning intention)		
Design			•	ng contexts, users,			
Vov. vosahi		G		ing, modelling, and		as	
Key vocab:	Explore the	State what	State what	Explain clearly	Explain clearly	Explain clearly	Explain clear
	sensory	products they	products they	what products	what products	and justify	and justify
	qualities of	are designing	are designing	they are	they are	what products	what produc
	materials	and making	and making	designing and	designing and	they are	they are
		which have a	which have a	making which	making which	designing and	designing an
	Begin to use	clear purpose	clear purpose	have a clear	have a clear	making which	making whic
	the language	and an	and an	purpose and	purpose and	have a clear	have a clear
	of designing	intended user.	intended user.	an intended	an intended	purpose and	purpose and
	and making,			user.	user.	an intended	an intended
	e.g. join, build	Begin to	Begin to			user.	user.
	and shape.	understand	understand	Undertake	Undertake		
		the needs of	the needs of	research to	research to	Undertake	Undertake
	Use pictures	users other	users other	gather	gather	research to	research to
	and words to	than	than	information	information	inform the	inform the
	convey what	themselves.	themselves.	about the	about the	design	design
	they want to			needs and	needs and	process, using	process, usi
	make.	Generate and	Generate and	wants of	wants of	surveys,	surveys,
		talk about	talk about	individuals	individuals	interviews,	interviews,
		ideas by	ideas by	and groups	and groups	questionnaire	questionnai
		handling	handling	using surveys,	using surveys,	s and web-	s and web-
		materials and	materials and	questionnaire	questionnaire	based	based
		components –	components –	s, etc	s, etc	resources.	resources.
		handling,	handling,				
		investigating	investigating	Generate	Generate	Use	Use
		and	and	ideas by	ideas by	knowledge of	knowledge
		disassembling.	disassembling.	collecting and	collecting and	inventors,	inventors,
				using	using	designers,	designers,
		Learn to use	Learn to use	information	information	engineers,	engineers,
		and respond	and respond	from a	from a	chefs and	chefs and
		to simple	to simple	number of	number of	manufacturer	manufactur
		design criteria	design criteria	sources,	sources,	who have	who have
		to help	to help	including ICT	including ICT	developed	developed
		develop their	develop their	based sources	based sources	ground-	ground-
		ideas	ideas.	to generate	to generate	breaking	breaking
		Generate	Generate	design ideas.	design ideas.	products to	products to
				Disassemble	Disassemble	design their own	design their own
		ideas by drawing on	ideas by drawing on	and	and	innovative	innovative
		their own	their own				
		experiences.	experiences.	investigate existing	investigate existing	designs.	designs.
		experiences.	experiences.	everyday	everyday	Generate	Generate
		Use	Use	products to	products to	ideas by	ideas by
			knowledge of	see how they	see how they	collecting and	collecting ar
		knowledge of	_	•	fit their user	_	_
		existing	existing	fit their user		using	using information
		products to	products to	and purpose.	and purpose.	information,	
		1	1	1	i	from a	from a

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	help come up	help come up	Work from a	Work from a	number of	number of
	with ideas.	with ideas.	given design	given design	sources,	sources,
			specification	specification	including ICT	including ICT
	Model ideas	Model ideas	to guide their	to guide their	based	based
	by exploring	by exploring	thinking.	thinking.	sources.	sources.
	materials,	materials,	ciiii Kiii Bi		Sources.	304.003.
			Loorn what a	Loorn what a	Review	Review
	components	components	Learn what a	Learn what a		
	and	and	prototype is	prototype is	mechanical	mechanical
	construction	construction	and use pre-	and use pre-	products to	products to
	kits and by	kits and by	made	made	see how they	see how they
	making	making	examples of	examples of	function and	function and
	templates and	templates and	prototypes	prototypes	meet user's	meet user's
	mock-ups.	mock-ups.	and patterns.	and patterns.	needs.	needs.
	-	-	-	-		
			Generate	Generate	Develop their	Develop their
			labelled and	labelled and	own simple	own simple
			annotated	annotated	design	design
	Use	Use	sketches of	sketches of	specification	specification
	information				•	to guide their
		information	their ideas,	their ideas,	to guide their	_
	and	and	using	using	thinking.	thinking.
	communicatio	communicatio	computer-	computer-		_
	n technology,	n technology,	aided design	aided design	Create and	Create and
	where	where	where	where	use a	use a
	appropriate,	appropriate,	appropriate.	appropriate.	prototype/pat	prototype/pat
	to develop	to develop			tern to scale.	tern to scale.
	and	and	Learn an	Learn an		
	communicate	communicate	increasing	increasing	Create cross-	Create cross-
	their ideas.	their ideas.	range of	range of	sectional	sectional
			correct	correct	drawings,	drawings,
	To begin to	To begin to	technical	technical	exploded	exploded
	use software	use software			-	diagrams and
			vocabulary to	vocabulary to	diagrams and CAD software	_
	to represent	to represent	use to enable	use to enable		CAD software
	2D designs.	2D designs.	them to	them to	to represent	to represent
			explain.	explain.	designs.	designs.
	To use	To use				
	pictures and	pictures and			Identify the	Identify the
	words to	words to			properties	properties
	convey what	convey what			and qualities	and qualities
	they want to	they want to			of materials	of materials
	make.	make.			they might	they might
					use such as	use such as
	To think of	Think of			cardboard,	cardboard,
	interesting	interesting			wood, plastic.	wood, plastic.
	ways to	ways to			wood, plastic.	wood, plastic.
	decorate food	decorate food				
	that I have	that I have				
	made.	made thinking				
		of what would				
		be best for				
		the person				
		eating it.				
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## Components (eg specific learning intention) KS1: Mechanisms, structures, food and textiles

## KS2: Mechanical systems, electrical systems, structures, food and textiles

Planning

Practical skills	and	techniques
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Tractical Skills	ana teemingaes					
To learn to	Learn how to	Learn how to	To use	To use	To use	To use
construct	keep	keep	learning from	learning from	learning from	learning from
with a	themselves	themselves	maths and	maths and	maths and	maths and
purpose in	and other safe	and other safe	science to	science to	science to	science to
mind.	when using	when using	help design	help design	help design	help design
	tools and	tools and	and make	and make	and make	and make
To learn	materials such	materials such	products that	products that	products that	products that
how to use a	as holding	as holding	work.	work.	work.	work.
range of	scissors away	scissors away				
small tools,	from self and	from self and	To know that	To know that	To know that	To know that
e.g. scissors,	clothes, etc.	clothes, etc.	materials have	materials have	materials have	materials have
hole punch,			both	both	both	both
stapler,	Learn simple	Learn simple	functional	functional	functional	functional
woodworkin	characteristics	characteristics	properties	properties	properties	properties
g tools,	and	and	and aesthetic	and aesthetic	and aesthetic	and aesthetic
rolling pins,	properties of	properties of	qualities.	qualities.	qualities.	qualities.
pastry	materials they	materials they				
cutters.	will use in	will use in	To know the	To know the	To know the	To know the
	order to make	order to make	correct	correct	correct	correct
To have	informed	informed	technical	technical	technical	technical
basic	choices.	choices.	vocabulary for	vocabulary for	vocabulary for	vocabulary for
hygiene			the projects	the projects	the projects	the projects
awareness.	Demonstrate	Demonstrate	they are	they are	they are	they are
	a range of	a range of	undertaking.	undertaking.	undertaking.	undertaking.
To safely use	cutting and	cutting and				
and explore	shaping	shaping	Learn	Learn	Learn	Learn
a variety of	techniques;	techniques;	essential	essential	essential	essential
materials,	tearing/cuttin	tearing/cuttin	procedures	procedures	procedures	procedures
tools and	g/folding, rolling and	g/folding, rolling and	for safety and	for safety and	for safety and	for safety and
techniques.	curling.	curling.	hygiene when handling	hygiene when handling	hygiene when handling	hygiene when handling
	curing.	curing.	materials and	materials and	materials and	materials and
	Measure,	Measure,	tools safely.	tools safely.	tools safely.	tools safely.
	mark out, cut	mark out, cut	tools salely.	tools salely.	tools surely.	tools salely.
	and shape	and shape	Measure,	Measure,	Measure,	Measure,
	materials and	materials and	mark out, cut	mark out, cut	mark, cut out	mark, cut out
	components.	components.	and shape a	and shape a	and shape a	and shape a
			range of	range of	range of	range of
	Shape paper	Shape paper	materials and	materials and	materials and	materials and
	and card by	and card by	components	components	components.	components.
	cutting with	cutting with	with some	with some	e.g. using	e.g. using
	scissors.	scissors.	accuracy.	accuracy.	saws and sand	saws and sand
			e.g. using	e.g. using	paper using	paper using
	Mark out	Mark out	saws and sand	saws and sand	cm & mm to	cm & mm to
	materials to	materials to	paper using	paper using	measure.	measure.
	be cut using a	be cut using a	cms to	cms to		
	template.	template.	measure.	measure.	To understand	To understand
					that materials	that materials
	Assemble, join	Assemble, join	Use a wider	Use a wider	can be	can be
	and combine	and combine	range of	range of	combined and	combined and
	materials and	materials and	materials and	materials and	mixed to	mixed to

	Т					
	components	components	components	components	create more	create more
	with adhesives and	with adhesives and	than KS1, including	than KS1, including	useful characteristic.	useful characteristic.
	tapes.	tapes, or	construction	construction	characteristic.	characteristic.
	tapes.	creating	materials and	materials and	To use a range	To use a range
	Saw wood	hinges.	kits, textiles,	kits, textiles,	of tools in	of tools in
	with a gents	8	food	food	order to be	order to be
	saw/backsaw.	Saw wood	ingredients,	ingredients,	able to choose	able to choose
		with a gents	mechanical	mechanical	appropriately	appropriately
	Use wood	saw/backsaw.	components	components	from them.	from them.
	glue.		and electrical	and electrical		
		Use wood	components.	components.	Use modelling	Use modelling
	Use a drill or	glue.			wire, pliers,	wire, pliers,
	hole punch.				wire cutters	wire cutters
		Use a drill or			etc.	etc.
	Learn simple	hole punch.	llas ta ala	Han to als	I.I	Han
	finishing	Learn simple	Use tools	Use tools	Use	Use
	techniques.	finishing techniques,	independently with	independently with	techniques that involve a	techniques that involve a
		including	increasing	increasing	number of	number of
		those from art	accuracy,	accuracy,	steps.	steps.
		and design.	control and	control and	<b> </b>	1
	Mechanisms	J	awareness of	awareness of	Use a glue gun	Use a glue gun
	Use and		conservation	conservation	with close	with close
	explore	Mechanisms	e.g. bench	e.g. bench	supervision.	supervision.
	different	Use and	hooks and	hooks and		
	levers and	explore	mitre blocks,	mitre blocks,	Use a hand	Use a hand
	slides in my	different	electric	electric	drill to drill	drill to drill
	work.	mechanisms;	components	components	tight and	tight and
		levers and	(such as bulbs	(such as bulbs	loose fit holes.	loose fit holes.
	Use a range of materials and	slides in my work.	and buzzers), wire strippers,	and buzzers), wire strippers,	Use finishing	Use finishing
	components,	WOIK.	staplers,	staplers,	techniques to	techniques to
	including	Use a range of	cardboard	cardboard	strengthen	strengthen
	construction	materials and	triangles etc.	triangles etc.	and improve	and improve
	materials and	components,	J	J	the	the
	kits and	including	Learn to use a	Learn to use a	appearance of	appearance of
	mechanical	construction	range of tools	range of tools	their product.	their product.
	components.	materials and	with accuracy	with accuracy		
		kits and	including	including	Ensure	Ensure
	Use wheels	mechanical	scissors,	scissors,	products have	products have
	and axles	components.	what tools	what tools	a high-quality	a high-quality
	(pushed through)	Use wheels	should we include for	should we include for	finish using appropriate	finish using appropriate
	unougn)	and axles	lks2 and uks2?	lks2 and uks2?	resources	resources
	Use	(pushed	INJE UTIU UNJE!	INJE UNU UNJE!	(such as	(such as
	construction	through)			sanding	sanding
	kits.				wood).	wood).
		Use			,	,
	Make moving	construction				
	joints using	kits.				
	paper			Learn how	Mechanical	Mechanical
	fasteners,	Make moving	Learn how	finishing	systems	systems
	wood, axels	joints using	finishing	techniques	Use simple	Use simple
	etc	paper	techniques	can improve	mechanisms,	mechanisms,
		fasteners,	can improve	the	e.g. pulleys,	e.g. pulleys,
			the		cams, cogs.	cams, cogs.

I al a satific la acco					
Identify how toys can be	wood, axels etc	appearance of	appearance of their product.	Pagin to usa	Pogin to uso
made to move	etc	their product.	their product.	Begin to use hydraulics.	Begin to use hydraulics.
	Idontify how	Mechanical	Mechanical	-	Design ICT
(push, pull)	Identify how toys can be			Design ICT controlled	controlled
Haa	,	Systems	systems		
Use	made to move	Cut slots.	Cut slots and	mechanisms-	mechanisms-
programmabl	(push, pull)		internal	use computer	use computer
e toys (e.g.		Use cutting	shapes.	to control	to control
Roamer)	Use	and shaping		programs and	programs and
Create pop-	programmabl	techniques	Use cutting	equipment.	equipment.
ups and	e toys (e.g.	that include	and shaping	FLOWOL.	FLOWOL.
sliders	Roamer)	cuts within	techniques	_	
	Create pop-	the perimeter	that include	Know that	Know that
	ups and	of the	cuts within	mechanical	mechanical
	sliders	material (slots	the perimeter	systems have	systems have
	_	or cut outs).	of the	an input,	an input,
	Use a range of		material (slots	process and	process and
	materials to	To know how	or cut outs).	output.	output.
	create models	mechanical			
	with wheels	systems such	To know how	Know how	Know how
	and axels e.g.	as levers and	mechanical	mechanical	mechanical
	tubes, dowel	linkages or	systems such	systems such	systems such
	and cotton	pneumatic	as levers and	as cams or	as cams or
	reels.	systems	linkages or	pulleys or	pulleys or
		create	pneumatic	gears create	gears create
	Use simple	movement.	systems	movement.	movement.
	pop-ups.		create		
Structures			movement.		
Investigate	Structures				
strengthening	Build				Use a cam to
sheet	freestanding	Use		Structures	make an up
materials.	structures,	mechanisms	Use	Construct	and down
	exploring how	in their	mechanisms	regular free	mechanism.
Build	they can be	products, e.g.	in their	standing 3D	
structures,	made	syringes for	products, e.g.	frames –	Structures
exploring how	stronger,	pneumatics,	syringes for	bridges.	Construct
they can be	stiffer and	levers, gears,	pneumatics,	Use	regular free
made	more stable.	pulleys.	levers, gears,	techniques for	standing 3D
stronger,			pulleys.	reinforcing	frames –
stiffer and	Make box	Use levers and		and	bridges.
more stable.	models, card	pulleys to	Use levers and	strengthening	Use
	and wood	create moving	pulleys to	structures.	techniques for
Make box	constructions.	parts using	create moving		reinforcing
models, card		split pins, card	parts using	Use	and
and wood	Use materials	and string.	split pins, card	construction	strengthening
constructions.	to practise		and string.	kits and	structures.
	drilling,			building	
	screwing,		To use and	instructions to	Use
	nailing and		explore	identify how	construction
	gluing to		complex pop-	structures are	kits and
	strengthen		ups.	stabilised and	building
	products.	Structures		strengthened.	instructions to
		To know how	Structures		identify how
		to make	To know how	Know how to	structures are
		strong, stiff	to make	reinforce and	stabilised and
		shell	strong, stiff	strengthen a	strengthened.
		structures.			

	shell	3D	Know how to
Use	structures.	framework.	reinforce and
construction	structures.	Tame work.	strengthen a
kits to test for	Use		3D
strength.	construction	Electrical	framework.
Strength.	kits to test for	Systems	Trame work.
Investigate	strength.	Attach motors	Electrical
how	strength.	for electrical	Systems
structures can		control.	Attach motors
fail when		CONTROL.	for electrical
	laasticata	Constant management	
loaded, and	Investigate	Switch motors	control.
stabilise	how	on/off	Constant and the second
structures to	structures can		Switch motors
withstand	fail when	Control	on/off
greater loads.	loaded, and	electrical	
	stabilise	circuits with	Control
Understand	structures to	ICT (e.g. use	electrical
different	withstand	computer to	circuits with
structures	greater loads.	operate	ICT (e.g. use
types,		switch)	computer to
shell/frame.	Understand		operate
	different	Know how to	switch)
Strengthen	structures	program a	
frames using	types,	computer to	Know how to
diagonal	shell/frame.	monitor	program a
struts.		changes in the	computer to
	Investigate	environment	monitor
Electrical	how to make	and control	changes in the
Systems	structures	their	environment
Explore	more stable	products.	and control
batteries and	e.g. by		their
bulbs.	widening the	Know how	products.
	base.	more complex	
Use simple	-1	electrical	Know how
switches to	Electrical	circuits and	more complex
achieve a	Systems	components	electrical
functional	Explore	can be used to	circuits and
result.	batteries and	create	components
	bulbs.	functional	can be used to
To know how	lles simmel	products.	create
simple	Use simple	Vn au · +b a+	functional
electrical	switches to	Know that	products.
circuits and	achieve a	electrical	Vnou that
components	functional	systems have	Know that
can be used to	result.	an input,	electrical
create	To les and barre	process and	systems have
functional	To know how	output.	an input,
products.	simple	Control	process and
To know how	electrical	Control a	output.
To know how	circuits and	model using an ICT control	Croata siravita
to program a	components		Create circuits
computer to	can be used to	model.	that employ a
control	create		number of
products.	functional		components
	products.		(such as LEDs,
			resistors and
			transistors).

				Give a series of commands (Roamer).	To know how to program a computer to control products.		
					of commands (Roamer).		
					Create series and parallel circuits.		
			Camanananta	/:f:-			
	Own ideas	Own ideas	Own ideas	(eg specific lear	Own ideas	Own ideas	Own ideas
	and	and products	and products	and products	and products	and products	and products
	products	Use design	Use design	Refer to their	Refer to their	Refer to their	Refer to their
		criteria to	criteria to	design criteria	design criteria	design criteria	design criteria
	Learn about	guide	guide	as they design	as they design	as they design	as they design
	planning and	production	production	and make.	and make.	and make.	and make.
	adapting initial ideas	process.	process.				
	to make						
	them better.						
		Develop	Develop	Modify plans	Modify plans	Modify plans	
	Begin to talk	vocabulary	technical	as they work	as they work	as they work	Modify plans
	about changes	related to the products they	vocabulary related to the	and use their design criteria	and use their design criteria	and use their design criteria	as they work and use their
	made during	are making.	products they	to evaluate	to evaluate	to evaluate	design criteria
ē	the making		are making.	their	their	their	to evaluate
atir	process, e.g.	Existing		completed	completed	completed	their
alu.	making a	Products		products.	products.	products.	completed
and Evaluating y vocab:	decision to	Explore and	Evicting	Evicting	Evicting	Evicting	products.
anc • <b>vo</b>	use a different	ask questions of products	Existing Products	Existing products	Existing products	Existing products	Existing
Analysing a	joining	such as:	Explore and	Investigate	Investigate	Investigate	products
lysi	method.	- what	ask questions	and analyse:	and analyse:	and analyse:	Investigate
۸na		products are	of products	- how well	- how well	- how well	and analyse:
1		- who	such as:	products have	products have	products have	- how well
		products are for	- what products are	been designed - how well	been designed - how well	been designed - how well	products have been designed
		- what	- who	products have	products have	products have	- how well
		products are	products are	been made	been made	been made	products have
		for	for	- why	- why	- why	been made
		- how	- what	materials have	materials have	materials have	- why
		products work - how	products are for	been chosen - what	been chosen - what	been chosen - what	materials have been chosen
		products are	- how	methods of	methods of	methods of	- what
		used	products work	construction	construction	construction	methods of
		-where	- how	have been	have been	have been	construction
		products	products are	used	used	used	have been
		might be used	used	- how well	- how well	- how well	used
		-what materials	-where products	products work - how well	products work - how well	products work - how well	- how well products work
		materials	might be used	products	products	products	products work
	l	1	giit be asea	Pioducts	products	products	

		products are made from -what they like and dislike about products  Make a protype.	-what materials products are made from -what they like and dislike about products  Make more than one prototype and learn which works best.	achieve their purposes - how well products meet user needs and wants  Key events and individuals Know about inventors, designers, engineers, chefs and manufacturer s who have developed ground-breaking products.	achieve their purposes - how well products meet user needs and wants  Key events and individuals Know about inventors, designers, engineers, chefs and manufacturer s who have developed ground-breaking products.	achieve their purposes - how well products meet user needs and wants  Key events and individuals Know about inventors, designers, engineers, chefs and manufacturer s who have developed ground-breaking products.	- how well products achieve their purposes - how well products meet user needs and wants  Key events and individuals Know about inventors, designers, engineers, chefs and manufacturer s who have developed ground-breaking products.
Textiles Key vocab:	Learn to thread using pre-punctured fabric and card	Introduce learning to thread a needle (large binca type).  Learn to tie simple reef knots.  Learn to use running stitch to join two pieces of fabric.	Introduce learning to thread a needle (large binca type).  Learn to tie simple reef knots.  Learn to use running stitch to join two pieces of fabric.	(eg specific lear Weave with a variety of materials.  Sew using a range of basic stitches e.g: running stitch, back stitch and over stitch.  Learn to thread a needle (large binca type).  Learn to tie simple knots.  Use patterns and templates.  Pinning and cutting with	weave with a variety of materials.  Sew using a range of basic stitches e.g: running stitch, back stitch and over stitch.  Learn to thread a needle (large binca type).  Learn to tie simple knots.  Use patterns and templates.  Pinning and cutting with	Use different ways to join materials, e.g. glue, pins, press studs, Velcro, various stitches, buttons.  Learn to make own simple pattern pieces.  Able to join fabrics using a range of stitches with increasing independence including blanket stitch.	Use different ways to join materials, e.g. glue, pins, press studs, Velcro, various stitches, buttons.  Learn to make own simple pattern pieces.  Able to join fabrics using a range of stitches with increasing independence including blanket stitch.

				increasing	increasing		
				_	=		
				accuracy.	accuracy.		
				Lancin alancis	I a a una a la a cota		
				Learn about	Learn about		
				the properties	the properties		
				of a small	of a small		
				range of	range of		
				fabrics.	fabrics.		
			Components	(eg specific lear	ning intention)		
	Know that	Know that all	Know that all	Understand	Understand	Understand	Understand
	all food	food comes	food comes	seasonality	seasonality	seasonality	seasonality
	comes from	from plants or	from plants or	and know how	and know how	and know how	and know how
	plants or	animals.	animals.	a variety of	a variety of	a variety of	a variety of
	animals.			ingredients	ingredients	ingredients	ingredients
		Know that	Know that	are grown,	are grown,	are grown,	are grown,
	Know the	food has to be	food has to be	reared, caught	reared, caught	reared, caught	reared, caught
	importance	farmed,	farmed,	and	and	and	and
	of a healthy	grown	grown	processed.	processed.	processed.	processed.
	diet.	elsewhere	elsewhere	processed.	processed.	processed.	processeu.
	uiet.	(e.g. home) or	(e.g. home) or				
	Know that						
	Know that	caught.	caught.	l la deneken d	I los el a maka ca el	l local a make or al	l la danakan d
	everyone	V th t		Understand	Understand	Understand	Understand
	should eat	Know that	Know that	that food	that food	how food is	how food is
	at least five	everyone	everyone	ingredients	ingredients	processed into	processed into
	portions of a	should eat at	should eat at	can be fresh,	can be fresh,	ingredients	ingredients
ؿ	variety of	least five	least five	pre-cooked	pre-cooked	that can be	that can be
Ca	fruit and	portions of a	portions of a	and .	and .	eaten and	eaten and
Š	vegetables	variety of fruit	variety of fruit	processed.	processed.	used in	used in
and Nutrition; Key vocab:	every day.	and	and			cooking.	cooking.
;;		vegetables	vegetables	To understand	To understand		
io	To manage	every day.	every day.	that a healthy	that a healthy	To understand	To understand
ij	own basic			diet is made	diet is made	the	the
<u> </u>	hygiene.	To name and	To name and	up from a	up from a	importance of	importance of
5		sort foods into	sort foods into	variety and	variety and	a healthy and	a healthy and
Β̈́	To use	the five	the five	balance of	balance of	varied diet	varied diet
<u>ھ</u>	cutlery	groups in The	groups in The	different food	different food	and know the	and know the
ķ	safely.	Eatwell Guide.	Eatwell Guide.	and drink, as	and drink, as	5 areas of the	5 areas of the
Cookir				depicted in	depicted in	Eatwell Guide.	Eatwell Guide.
O		Understand	Understand	the Eatwell	the Eatwell		
		the	the	Guide.	Guide.	To know that	To know that
		importance of	importance of			food and drink	food and drink
		food safety	food safety	To know the 5	To know the	contain	contain
		and hygiene;	and hygiene;	areas of the	5 areas of the	different	different
		washing	washing	Eatwell Guide.	Eatwell Guide.	substances –	substances –
		hands.	hands.	Latweii Gaiae.	Latwen datae.	nutrients,	nutrients,
		nanas.	nanas.	To know that	To know that	water and	water and
		To prepare	To prepare	to be active	to be active	fibre – that	fibre – that
		simple dishes	simple dishes	and healthy,	and healthy,	are needed	are needed
		safely and	safely and	food and drink	food and drink	for health.	for health.
		-	-	are needed to	are needed to	ioi nealul.	וטו וופמונוו.
		hygienically,	hygienically,				
		without using	without using	provide	provide		
		a heat source.	a heat source.	energy for the	energy for the		
		To use subtain	To use subtain	body.	body.		
		To use cutlery	To use cutlery				
		safely.	safely and				
			accurately.				

			То	To develop a	To develop a	To develop a
		To use a	understanding	deeper	deeper	deeper
	To use a	bridge	basic hygiene	understanding	understanding	understanding
	bridge	technique to	and know how	of basic	of basic	of basic
	technique to	cut food	bacteria	hygiene and	hygiene and	hygiene and
	cut food	safely.	develops.	how bacteria	how bacteria	how bacteria
	safely.	surcry.	acvelops.	develops.	develops.	develops.
	salety.	To cut, peel	To peel and	develops.	develops.	develops.
	To cut, peel	and grate	grate soft	To peel and	To peel and	To measure
	and grate	ingredients	foods e.g.	-	grate soft and	
	•	safely.	_	grate soft	_	ingredients to the nearest
	safely and	sarely.	courgette,	foods e.g.	harder foods	
	accurately.	C	cheese	courgette,	e.g. apple,	gram/ml and
	c 1 0	Spread soft	-	cheese	carrot,	calculate
	Spread soft	butter with a	To use	_	parmesan	ratios of
	butter with a	knife.	measuring	To use		ingredients to
	knife.		cups, spoons,	measuring	To measure	scale up or
		To use	and scales to	cups, spoons,	ingredients	down a
	Think of	measuring	measure out	and scales to	accurately	recipe.
	interesting	cups, spoons,	ingredients in	measure out	using different	
	ways to	and scales to	grams.	ingredients in	equipment.	To use simple
	decorate food	measure out		grams.		combination
	that I have	ingredients in	Use a jug to		To use simple	of 'Bridge' and
	made thinking	grams.	measure	Use a jug to	combination	'Claw' e.g.
	of what would		liquids in ml.	measure	of 'Bridge' and	onion
	be best for	To use a jug to		liquids in ml.	'Claw' e.g.	
	the person	measure	To mix		onion	To combine
	eating it.	liquids in ml.	ingredients to	To crack an		ingredients
			form a bread	egg & beat an	Use a hand	appropriately
			dough	egg.	mixer or	(beating,
					blender	rubbing).
			To knead and	To cut fat		
			shape dough.	(butter) into		To crack an
				flour and rub		egg &
				fat into flour.		separating
						Assemble or
		Think of			Assemble or	cook
		interesting			cook	ingredients,
		ways to			ingredients,	controlling the
		decorate food			controlling the	temperature
		that I have			temperature	of the oven or
		made thinking			of the oven or	hob with adult
		of what would			hob with adult	supervision
		be best for			supervision	e.g. to sweat a
		the person			e.g. to sweat a	soup
		eating it.			soup	30up
		eating it.			soup	To roll pactry
						To roll pastry.
						Use a hand
						mixer or
						blender