

Design and Technology: Knowledge and Skills Progression Map

By the end of EYFS, children will:

Expressive Arts and Design; Creating with Materials

ELG: Safely use & explore a variety of materials, tools & techniques, experimenting with colour, design, texture, form & function

ELG: Share their creations, explaining the process they used

ELG: Make use of props and materials when role playing characters in narratives and stories.

Physical Development: Fine Motor Skills

ELG: Use a range of small tools, including scissors, paint brushes and cutlery

ELG: Begin to show accuracy and care when drawing

Personal Social and Emotional; Managing Self

ELG: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge

EYFS Vocabulary:

fruit vegetables safety knife blade tool edge handle chop slice cut saucepan blender chopping board hob boil blend mix packaging recyclable metal plastic reusable join stick cut bend slot scissors measure materials fix thread weave pattern sew sewing needle embroider design evaluate waterproof absorb prediction variable experiment investigation float sink junk

Nursery	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
•	Me and my Community	Once Upon a Time	Starry Night	Dangerous Dinosaurs	Sunshine and	Big Wide World
					Sunflowers	
		Expressive Arts and	Expressive Arts and		Expressive Arts and	
Development		Design; Creating with	Design; Creating with		Design; Creating with	
Matters links:		Materials	Materials		Materials	
		Share their creations,	Share their creations,		Share their creations,	
		explaining the process	explaining the process		explaining the process	
		they have used.	they have used.		they have used.	
		Explore and create	Explore and create		Explore and create	
		using a wide range of	using a wide range of		using a wide range of	
		materials and	materials and		materials and	
		components, including	components, including		components, including	
		upcycled materials,	upcycled materials,		upcycled materials,	
		construction kits,	construction kits,		construction kits,	
		textiles and	textiles and		textiles and	
		ingredients.	ingredients.		ingredients.	
		Physical	Physical		Physical	
		Development; Fine	Development; Fine		Development; Fine	
		Motor Skills	Motor Skills		Motor Skills	
		Use a range of small	Use a range of small		Use a range of small	
		tools, including	tools, including		tools, including	
		scissors, paint brushes	scissors, paint brushes		scissors, paint brushes	
		and cutlery.	and cutlery.		and cutlery.	
		PSED: Managing Self	PSED: Managing Self		PSED: Managing Self	
		Be confident to try	Be confident to try		Be confident to try	
		new activities and	new activities and		new activities and	
		show independence,	show independence,		show independence,	
		resilience and	resilience and		resilience and	
		perseverance in the	perseverance in the		perseverance in the	
		face of challenge	face of challenge		face of challenge	
		-How to build a small-	-How to build a rocket		-How to build a boat	
Substantive		scale house that is	using suitable		that will float on the	
Knowledge:		safe from the Big Bad	materials.		water.	

	WolfA bridge is a structure	-How to express my ideas by making	- How to express my ideas by making
	that crosses a spaceUse one-handed tools and equipment, for example, to make snips in paper.	simple modelsHow to join different materialsUse one-handed tools and equipment, for example, to make snips in paper.	simple modelsHow to join different materialsUse one-handed tools and equipment, for example, to make snips in paper.
Disciplinary Knowledge:	-Share their creations with others and respond to questions and suggestions about how it was madeExplore and choose freely from a variety of materialsMake simple structures using a range of materials.	-Explore and choose freely from a variety of materialsMake simple structures using a range of materialsDevelop their own ideas and then decide which materials are suitable for the desired outcome.	-Develop their own ideas and then decide which materials are suitable for the desired outcomeExplore and choose freely from a variety of materials.
Experience:	Build a house for the Three Little Pigs.	Build a rocket.	Build a boat.

ACADEMY

Reception	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Let's Explore	Marvelous Machines	Long Ago	Ready, Steady, Grow	Animal Safari	On the Beach
	Expressive Arts and	Expressive Arts and	Expressive Arts and	Expressive Arts and	Expressive Arts and	Expressive Arts and
Development	Design; Creating with	Design; Creating with	Design; Creating with	Design; Creating with	Design; Creating with	Design; Creating with
Matters links:	Materials	Materials	Materials	Materials	Materials	Materials
	Safely use & explore a	Safely use & explore a	Safely use & explore a	Safely use & explore a	Safely use & explore a	Safely use & explore a
	variety of materials,	variety of materials,	variety of materials,	variety of materials,	variety of materials,	variety of materials,
	tools & techniques,	tools & techniques,	tools & techniques,	tools & techniques,	tools & techniques,	tools & techniques,
	experimenting with	experimenting with	experimenting with	experimenting with	experimenting with	experimenting with
	colour, design,	colour, design, texture,	colour, design,	colour, design,	colour, design,	colour, design, texture,
	texture, form &	form & function	texture, form &	texture, form &	texture, form &	form & function
	function		function	function	function	
		Share their creations,			A	Share their creations,
	Share their creations,	explaining the process	Share their creations,	Share their creations,	Share their creations,	explaining the process
	explaining the process	they used	explaining the process	explaining the process	explaining the process	they used
	they used		they used	they used	they used	
	Dhusiaal	Dhysical Dayslandsont	Dhysical	Dhusiaal	Dhusiaal	Dhusiaal
	Physical Development; Fine	Physical Development; Fine Motor Skills	Physical Development; Fine	Physical Development; Fine	Physical Development; Fine	Physical Development; Fine
	Motor Skills	Use a range of small	Motor Skills	Motor Skills	Motor Skills	Motor Skills
	Use a range of small	tools, including scissors,	Use a range of small			
	tools, including	paint brushes and	tools, including	tools, including	tools, including	tools, including
	scissors, paint brushes	cutlery.	scissors, paint brushes	scissors, paint brushes	scissors, paint brushes	scissors, paint brushes
	and cutlery.	cutiery.	and cutlery.	and cutlery.	and cutlery.	and cutlery.
	and cutiery.		and cutiery.	and cutiery.	and cutiery.	and cutiery.
			\wedge			
	PSED: Managing Self	PSED: Managing Self	PSED: Managing Self	PSED: Managing Self	PSED: Managing Self	PSED: Managing Self
	Be confident to try	Be confident to try new	Be confident to try			
	new activities and	activities and show	new activities and	new activities and	new activities and	new activities and
	show independence,	independence,	show independence,	show independence,	show independence,	show independence,
	resilience and	resilience and	resilience and	resilience and	resilience and	resilience and
	perseverance in the	perseverance in the	perseverance in the	perseverance in the	perseverance in the	perseverance in the
	face of challenge	face of challenge	face of challenge	face of challenge	face of challenge	face of challenge
				_ 1\ /1		
				- 11//		

Experiences:		/ \ (/	Design a t-shirt	Make a musical instrument	Weaving	Beach Art
					colour, scale, subject matter, composition and typeContinue, copy and create a repeating pattern using a variety of products.	
		and how something was made and compare with others.	stories or their own ideas, interests or experiences.		-Discuss similarities and differences in their own and others' work, linked to visual elements, such as	
	existing projects, stories or their own ideas, interests or experiences.	stories or their own ideas, interests or experiencesDescribe what, why	ideas and use a variety of resources to make products inspired by existing projects,		existing projects, stories or their own ideas, interests or experiences.	sounds, movement and emotions throug their creations.
(nowledge:	ideas and use a variety of resources to make products inspired by	variety of resources to make products inspired by existing projects,	simple practical tasksCreate collaboratively, share	constructing and making.	ideas and use a variety of resources to make products inspired by	make 2D and 3D artTalk about and represent ideas,
Disciplinary	-Create collaboratively, share	-Create collaboratively, share ideas and use a	-Choose and explore appropriate tools for	-Adapt and refine their work as they are	-Create collaboratively, share	-Use natural material and loose parts to
	they are going to makeMaterials can be joined in different ways (glue, tape, PVA, masking tape).		they are going to make.		they are going to make.	design and make the 'sound of the sea' (pebbles, foil, sand, rice, lentils, pasta)How to plan what they are going to make.
Substantive Knowledge:	 -How to share resources. -How to communicate my ideas with others. -How to work safely and hygienically. -How to plan what 	-Materials can be joined in different ways (glue, tape, PVA, masking tape)How to plan what they are going to make.	-Items can be changed by adding different things (buttons, ribbon, beads etc.) -Which tools to select for a task. -How to plan what	-Which materials and tools to select to design and make a musical instrumentHow to plan what they are going to make.	-Which materials and tools to select to design and make an animal homeHow to weave a pattern with supportHow to plan what	-How to make beach art using a variety of natural materialsHow to work safely and hygienicallyWhich materials and tools to select to

By the end of KS1. children will:

Through a variety of creative and practical activities, pupils will be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.

Design

-use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

-generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

-select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

-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

Evaluate

-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]

KS1 Vocabulary:

Key Stage 1

Design, make, evaluate

Design criteria

See half termly overviews.

-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

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

-use the basic principles of a varied and healthy diet to prepare dishes.

-understand where food comes from.

Prior learning links:

Expressive Arts and Design; Creating with Materials

ELG: Safely use & explore a variety of materials, tools & techniques, experimenting with colour, design, texture, form & function

ELG: Share their creations, explaining the process they used

ELG: Make use of props and materials when role playing characters in narratives and stories.

Physical Development: Fine Motor Skills

ELG: Use a range of small tools, including scissors, paint brushes and cutlery

ELG: Begin to show accuracy and care when drawing

Personal Social and Emotional; Managing Self

ELG: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge

Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Shade and Shelter		Taxi!			Chop, Slice, Mash
	Technical Knowledge:		Technical Knowledge:			Design:
National	Build structures,		Build structures,			Design purposeful,
Curriculum links:	exploring how they can		exploring how they			functional and
	be made stronger,		can be made stronger,			appealing products for
	stiffer and more stable.		stiffer and more			themselves and others
			stable.			based on design
	Design:					criteria.
	Design purposeful,		Explore and use			
	functional and		mechanisms (for			Generate, develop,
	appealing products for		example, leavers,			model and
	themselves and others		sliders, wheels and			communicate their
	based on design		axels) in their			ideas through talking,
	criteria.		products.			drawing, templates,
						mock-ups, and where
	Generate, develop,		Design:			appropriate,
	model and		Design purposeful,			information and
	communicate their		functional and			communication
	ideas through talking,		appealing products for			technology.
	drawing, templates,		themselves and others			
	mock-ups, and where		based on design			Make:
	appropriate,		criteria.			Select from and use a
	information and					range of tools and
	communication		Generate, develop,			equipment to perform
	technology.		model and			practical tasks (for
			communicate their			example, cutting,
	Make:		ideas through talking,			shaping, joining and
	Select from and use a		drawing, templates,			finishing)
	wide range of materials		mock-ups, and where			
	and components,		appropriate,			Evaluate:
	including construction		information and			Evaluate their ideas
	materials, textiles and		communication			and products against
	ingredients, according		technology.			design criteria.
	to their characteristics.					
			Make:			Cooking and
	Evaluate:		Select from and use a			Nutrition:
	Evaluate their ideas		range of tools and			Use the basic
	and products against		equipment to perform			principles of a healthy

	design criteria.	practical tasks (for	and varied diet to
		example, cutting,	prepare dishes.
	Explore and evaluate a	shaping, joining and	
	range of existing	finishing)	Understand where
	products.		food comes from.
		Evaluate:	
		Evaluate their ideas	
		and products against	
		design criteria.	
		Explore and evaluate a	
		range of existing	
		products.	
	-A shelter is a structure	-Axels are used in	-Meat, fish and dairy
Substantive	designed to give	structures and	products come from
Knowledge:	protection from danger	mechanisms to make	animals.
	or weather.	parts turn in a circle.	-Fruit and vegetables
	-A product is guided by	-A chassis is the frame	come from plants.
	design criteria and	of a vehicle.	-Some foods need to
	must meet the design	-Most vehicles that	be prepared before
	criteria to be	move on land have	eating.
	successful.	axels and wheels	-Peeling, slicing,
	-Safety rules are made	attached to a chassis.	chopping, grating,
	to keep people safe	- A product is guided	tearing or mashing are
	from danger, including:	by design criteria and	all different methods
	listening carefully,	must meet the design	of preparing food.
	following instructions	criteria to be	-Handwashing and
	and using equipment	successful.	good hygiene prevent
	only when told.		the spread of germs.
			-Fruit and vegetables
			are an important part
			of a healthy diet.
			-Safety rules are made
			to keep people safe
			from danger,
			including: listening
			carefully, following
			instructions and using
			equipment only when

			told.
	-Describe the	-Name and explore a	-Sort food into groups
Disciplinary	similarities and	range of everyday	based on their
Knowledge:	differences between	products and describe	sources.
	two products.	how they are used.	-Select the
	-Name and explore a	-Use wheels and axels	appropriate tool for a
	range of everyday	to make simple	simple practical task.
	products and describe	moving models.	-Explain why
	their uses.	-Describe the	handwashing and
	-Create a play den to	similarities and	cleanliness are
	meet simple design	differences between	important.
	criteria.	two products.	-Select healthy
	-Select and use a range	- Create a London taxi	ingredients for a fruit
	of materials, beginning	to meet simple design	or vegetable salad.
	to explain choices.	criteria.	-Measure and weigh
	-Construct a play den	-Evaluate their own	food items using non-
	using a range of	and others work,	standard measure,
	materials.	discussing: strengths,	such as spoons or
	-Evaluate their own	weaknesses and	cups.
	and others work,	offering support.	-Create a healthy
	discussing: strengths,		sandwich based on
	weaknesses and		design criteria.
	offering support.		-Follow the rules to
			keep safe when using
			equipment.
			-Evaluate their own
			and others work,
			discussing: strengths,
			weaknesses and
			offering support.
Experiences:	Forest School		Phunky Foods
	Absorbant, clay, den,	Axel, chassis, design	Chop, dairy, fruit,
Key Vocabulary:	design criteria, durable,	criteria, dowel, fixed	grate, leaf, mash, peel,
	fabric, flexible, glass,	axel, moving axel, taxi,	root, salad, dressing,
	material, metal,	vehicle, washer,	seed, slice, stem, tear,
	opaque, plastic, shade,	wheel.	texture, tool.
	shelter, strong,		
	temporary,		

transparent,			
waterproof, wood			

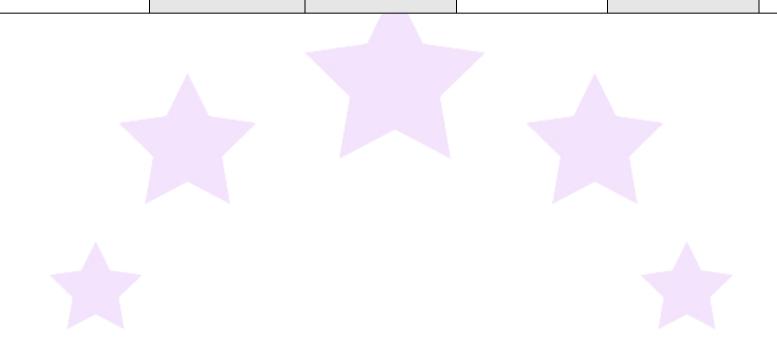


SEATON SEADEMY

Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Remarkable Recipes			Beach Huts		Cut, Stitch, Join
	Design:			Design:		Design:
National	Design purposeful,			Design purposeful,		Design purposeful,
Curriculum links:	functional, appealing			functional, appealing		functional, appealing
	products for			products for		products for
	themselves and other			themselves and other		themselves and other
	users based on design			users based on design		users based on design
	criteria.			criteria.		criteria.
	Generate, develop,			Generate, develop,		Generate, develop,
	model and			model and		model and
	communicate their			communicate their		communicate their
	ideas through talking,			ideas through talking,		ideas through talking,
	drawing, templates,			drawing, templates,		drawing, templates,
	mock-ups and, where			mock-ups and, where		mock-ups and, where
	appropriate,			appropriate,		appropriate,
	information and			information and		information and
	communication			communication		communication
	technology.			technology.		technology.
	Make:			Make:		Make:
	Select from and use a			Select from and use a		Select from and use a
	range of tools and			range of tools and		range of tools and
	equipment to perform			equipment to perform		equipment to perform
	practical tasks (for			practical tasks (for		practical tasks (for
	example, cutting,			example, cutting,		example, cutting,
	shaping, joining and			shaping, joining and		shaping, joining and
	finishing).			finishing).		finishing).
	Evaluate:			Select from and use a		Select from and use a
	Evaluate their ideas			wide range of		wide range of
	and products against			materials and		materials and
	design criteria.			components, including		components, including
				construction		construction materials,
	Explore and evaluate a			materials, textiles and		textiles and
	range of existing			ingredients, according		ingredients, according
	products.			to their		to their characteristics.
				characteristics.		

	Food:	Evaluate:	Evaluate:
	Understand where	Evaluate their ideas	Evaluate their ideas
	food comes from.	and products against	and products against
		design criteria.	design criteria.
	Use the basic principles		
	of a healthy and varied	Technical:	Explore and evaluate
	diet to prepare dishes.	Build structures,	range of existing
		exploring how they	products.
		can be made stronger,	
		stiffer and more	
		stable.	
	-Food comes from two	-Structures can be	-Many home product
ubstantive	main sources: animals	made stronger, stiffer	are made from fabri
(nowledge:	and plants.	and more stable by	-Fabric based produc
	-Milk comes mainly	using cardboard rather	in the home include:
	from cows.	than paper and	cushions, curtains,
	-Eggs are laid by female	triangular shapes	blinds and carpets.
	animals.	rather than squares.	-Cath Kidston is a
	-Most edible oils are	-Properties of	British brand which
	made from plant parts.	components and	began in the 1990's.
	-Honey is made by	materials determine	-A running stitch is a
	bees.	how they can and	basic running stitch
	-Plants give us nuts.	cannot be used.	used to join two pie
	-Tools have		of fabric.
	characteristics that		-Embellishment is
	make them suitable for		decorative detail or
	specific purpose: e.g. a		feature added to
	knife has a sharp edge		something to make
	for cutting.		more attractive.
	-Hygiene rules include:		-Properties of
	washing hands,		components and
	cleaning surfaces,		materials determine
	storing food		how they can and
	appropriately and		cannot be used.
	wiping up spills.		
	-Identify the origin of	-Generate and	-Explain how an
Disciplinary	some common foods	communicate their	everyday product
nowledge:	(milk, eggs, some	ideas through a range	could be improved.

	meats, common fruit	of methods.	-Explain why a
	and vegetables).	-Explore how	designer or inventor is
	-Prepare ingredients by	structures can be	important.
	chopping, peeling,	made stronger, stiffer	-Compare the same
	grating and slicing.	and more stable.	and different products
	-Select an appropriate	-Choose appropriate	from the same brands
	tool for a task and	components and	-Select the appropriate
		materials and suggest	tool for a task and
	explain their choice.		
	-Work safely and	ways of manipulating	explain their choiceUse different
	hygienically in cooking	them to achieve the	
	activities.	desired effect.	methods of joining
	-Generate and	-Select the	fabrics, including glue
	communicate ideas	appropriate tool for a	and running stitch.
	through a range of	task and explain their	-Add simple decorative
	different methods.	choice.	embellishments, such
	-Explain how closely	-Explain how closely	as: buttons, prints,
	their finished meal	their finished meal	sequins and applique.
	meets the design	meets the design	- Choose appropriate
	criteria and say what	criteria and say what	components and
	they could do better in	they could do better in	materials and suggest
	the future.	the future.	ways of manipulating
			them to achieve the
			desired effect.
	Phunky Foods	Create a beach hut	Create a bag tag
Experiences:			
•			
	Beef, chop, design	Apex roof, beach hut,	Applique, binca,
Key Vocabulary:	criteria, edible,	joint, cladding, design	designer,
,	equipment, grate,	criteria, frame,	embellishment, fabric,
	ingredients, lamb,	structure, sand,	motif, needle, running
	mash, mixed diet, peel,	hacksaw, score, stilts,	stitch, sequin, sewing
	pork, preserves, pulses,	strengthen, triangular	patterns, textile,
	recipes, slice, vegan	corner.	thread.
	diet, vegetarian diet.		
			Cath Kidston
Designers:			Catil Mustoli



SEATON SEADEMY