## Keyworth Primary / Bessemer Grange School Design and Technology Progression Grid KS1 and 2



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Design:	Design:	Design	Design	Design	Design
Design and Lechnology	<ul> <li>design purposeful, functional, appealing products for themselves and other users based on simple design criteria</li> <li>generate, develop, model and communicate their ideas through talking, drawing, modelling and, where appropriate, information and communication technology</li> </ul>	<ul> <li>design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>explore and evaluate a range of different products.</li> <li>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate,</li> </ul>	<ul> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products aimed at particular individuals or groups</li> <li>Evaluate – investigate and analyse a range of existing products.</li> <li>understand how key events and individuals in design and technology have helped shape the world</li> <li>generate, develop and</li> </ul>	<ul> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li> <li>understand how key events and individuals in design and technology have helped shape the world</li> <li>investigate and analyse a range of existing products</li> </ul>	<ul> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li> <li>investigate and analyse a range of existing products</li> <li>understand how key events and individuals in design and technology have helped shape the world</li> </ul>	<ul> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li> <li>investigate and analyse a range of existing products</li> <li>understand how key events and individuals in design and technology have helped shape the world</li> </ul>
	<ul> <li>Make:</li> <li>with support, select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</li> <li>select from and use a</li> </ul>	<ul> <li>information and communication technology</li> <li>Make:         <ul> <li>with support, select from and use a range of tools and equipment to perform practical tasks</li> </ul> </li> </ul>	communicate their ideas through discussion, annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer-aided design	<ul> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer-aided design</li> </ul>	<ul> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li> </ul>	<ul> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross- sectional and exploded diagrams, prototypes, pattern pieces and</li> </ul>
	range of materials and	[for example, cutting,	• select from and use a	Make:		computer-aided design
	components, including construction materials, textiles and ingredients, according to their characteristics	<ul> <li>shaping, joining and finishing]</li> <li>select from and use a range of materials and components, including construction materials,</li> </ul>	wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] with	<ul> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and</li> </ul>	<ul> <li>Make:</li> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting,</li> </ul>	<ul> <li>Make:</li> <li>select from and use a wider range of tools and equipment to perform practical tasks</li> </ul>
	Evaluate:	textiles and ingredients,	developing accuracy.	finishing], accurately	shaping, joining and	[for example, cutting,
	<ul> <li>raik about their design, sharing what they like,</li> </ul>	characteristics,	<ul> <li>select from and use a wide range of materials</li> </ul>	<ul> <li>select from and use a wide range of materials</li> </ul>	inishingj, accurately	finishing], accurately

dislike and why	explaining choices.	and components,	and	d components,	•	select from and use a	•	select from and use a
• evaluate their ideas and		including construction	inc	cluding construction		wider range of materials		wider range of
products against design	Evaluate:	materials, textiles and	ma	aterials, textiles and		and components,		materials and
criteria	• Talk about their design,	ingredients, explaining	ing	gredients, according to		including construction		components, including
• Suggest improvements.	sharing what they like,	their choices.	the	eir functional		materials, textiles and		construction materials,
	dislike and why		pro	operties and aesthetic		ingredients, according to		textiles and ingredients,
Technical knowledge:	• evaluate their ideas and	Evaluate:	qu	alities		their functional		according to their
• build structures,	products against design	• Evaluate their ideas and				properties and aesthetic		functional properties
exploring how they can	criteria	products against their	Evalua	ate:		qualities, especially		and aesthetic qualities,
be made stronger,	<ul> <li>identify strengths and</li> </ul>	own design criteria and	• eva	aluate their ideas and		those that are		especially those that
stiffer and more stable	weaknesses and	consider the views of	pro	oducts against their		sustainable.		are sustainable.
<ul> <li>explore and use</li> </ul>	discuss possible	others to improve their	ow	vn design criteria	•	Justify your choices.	•	Justify your choices.
mechanisms [for	reasons for them	work	• Ret	flect on effective and				
example, levers, sliders,	<ul> <li>Suggest improvements</li> </ul>	<ul> <li>Make suggestions to</li> </ul>	ine	effective designs and	Eva	aluate:	Εv	aluate:
wheels and axles], in		modify and improve their	the	eir design process	•	evaluate their ideas and	٠	evaluate their ideas and
their products		work.	• De	escribe characteristics		products against their		products against their
	Technical knowledge:		tha	at make their final		own design criteria and		own design criteria and
	<ul> <li>build structures,</li> </ul>	Technical knowledge:	pro	oduct effective		consider the views of		consider the views of
Cooking and Nutrition:	exploring how they can	<ul> <li>apply their</li> </ul>	• cor	nsider the views of		others to improve their		others to improve their
• use the basic principles	be made stronger,	understanding of how to	oth	hers to improve their		work		work
of a healthy and varied	stiffer and more stable	strengthen, stiffen and	WO	ork	•	Explain key functions and	•	Explain key functions
diet to prepare dishes	<ul> <li>explore and use</li> </ul>	reinforce more complex				features of their product.		and features of their
<ul> <li>understand where food</li> </ul>	mechanisms [for	structures	Techni	ical knowledge:	•	Reflect on effective and		product.
comes from	example, levers, sliders,	<ul> <li>understand and use</li> </ul>	• ap	ply their		ineffective designs and	•	Reflect on effective and
	wheels and axles], in	mechanical systems in	un	iderstanding of how to		their design process		ineffective designs and
	their products	their products [for	str	rengthen, stiffen and	•	Describe characteristics		their design process
		example, gears, pulleys,	rei	Inforce more complex		that make their product	•	Describe characteristics
		• cams, levers and	str	ructures		effective (considering		that make their product
	Cooking and Nutrition:	linkagesj	• un	iderstand and use		purpose and audience).		effective (considering
	• use the basic principles	<ul> <li>understand and use</li> </ul>	me	echanical systems in	•	Be expressive and		purpose and audience).
	of a healthy and varied	electrical systems in	the	eir products [for		analytical, considering	•	Be expressive and
	diet to prepare dishes	their products [lor	exa	ample, gears, pulleys,		the view of others: to		analytical, considering
	• understand where food	example, series circuits	• car	ms, levers and		adapt, extend and justify		the view of others: to
	comes from	<ul> <li>Incorporating switches,</li> <li>bulbs, buzzers and</li> </ul>		Kages]	Та	their work.		adapt, extend and
		buibs, buzzers and	• un	iderstand and use	rec	chnical knowledge:		Justily their work.
		motorsj	ele	ectrical systems in	•	apply their	Та	shrippi knowledge
		<ul> <li>apply their</li> <li>understanding of</li> </ul>	the	en products [for		understanding of now to		apply their
		understanding of	exa	ample, series circuits		sciengenen, stiffen and		apply their
		monitor and control	Inc	ube burgers and		structures		to strongthon, stiffor
		their products	ua na	nus, buzzers and		understand and use		and reinforce more
			mo	uluisj	•	unuerstanu and use		complex structures
			● ap	piy their		mechanical systems in		complex su uctures