Bledlow Ridge School Skills and Knowledge Progression
Design and Technology

Design						
Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Select appropriate resources ● Use gestures, talking and arrangements of materials and components to show design ● Use contexts set by the teacher and myself ● Use language of designing and making (join, build, shape, longer, shorter, heavier etc)	have own ideas ● explain what I want to do ● explain what my product is for, and how it will work ● use pictures and words to plan, begin to use models ● design a product for myself following design criteria ● research similar existing products	● have own ideas and plan what to do next ● explain what I want to do and describe how I may do it ● explain purpose of product, how it will work and how it will be suitable for the user ● describe design using pictures, words, models, diagrams, begin to use ICT ● design products for myself and others following design criteria ● choose best tools and materials, and explain choices	begin to research others' needs ● show design meets a range of requirements ● describe purpose of product ● follow a given design criteria ● have at least one idea about how to create product ● create a plan which shows order, equipment and tools ● describe design using an accurately labelled sketch and words ● make design decisions	use research for design ideas ● show design meets a range of requirements and is fit for purpose ● begin to create own design criteria ● have at least one idea about how to create a product and suggest improvements for design. ● produce a plan and explain it to others ● say how realistic the plan is. ● include an annotated sketch ● make and explain design	use internet and questionnaires for research and design ideas ● take a user's view into account when designing ● begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose ● create own design criteria ● have a range of ideas ● produce a logical, realistic plan and explain it to others. ● use cross-sectional planning	draw on market research to inform design ● use research of user's individual needs, wants, requirements for design ● identify features of design that will appeal to the intended user ● create own design criteria and specification ● come up with innovative design ideas ● *follow and refine a logical plan. ● use annotated sketches, cross-sectional planning and exploded diagrams

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		● use knowledge of existing products to produce ideas	● explain how product will work ● make a prototype ● begin to use computers to show design	decisions considering availability of resources ● explain how product will work ● make a prototype ● begin to use computers to show design.	and annotated sketches ● make design decisions considering time and resources. ● clearly explain how parts of the product will work. ● model and refine design ideas by making prototypes and using pattern pieces. ● use computer-aided designs	● make design decisions, considering, resources and cost ● clearly explain how parts of design will work, and how they are fit for purpose ● independently model and refine design ideas by making prototypes and using pattern pieces ● use computer-aided designs 1

Make						
Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Construct with a purpose, using a variety of resources ● Use simple tools	explain what I'm making and why ● consider what I need to do next ● select tools/equipment to cut, shape,	explain what I am making and why it fits the purpose ● make suggestions as to what I need to do next. ● join materials/component	select suitable tools/equipment, explain choices; begin to use them accurately ● select appropriate materials, fit for purpose.	select suitable tools and equipment, explain choices in relation to required techniques and use accurately ● select appropriate materials, fit for	use selected tools/equipment with good level of precision ● produce suitable lists of tools, equipment/materials needed ● select appropriate materials, fit for	● use selected tools and equipment precisely ● produce suitable lists of tools, equipment, materials needed, considering constraints

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and techniques ● Build / construct with a wide range of objects ● Select tools & techniques to shape, assemble and join ● Replicate structures with materials / components ● Discuss how to make an activity safe and hygienic ● Record experiences by drawing, writing, voice recording ● Understand	join, finish and explain choices ● measure, mark out, cut and shape, with support ● choose suitable materials and explain choices ● try to use finishing techniques to make product look good ● work in a safe and hygienic manner	s together in different ways ● measure, mark out, cut and shape materials and components, with support. ● describe which tools I'm using and why ● choose suitable materials and explain choices depending on characteristics. ● use finishing techniques to make product look good ● work safely and hygienically	● work through plan in order ● consider how good product will be ● begin to measure, mark out, cut and shape materials/components with some accuracy ● begin to assemble, join and combine materials and components with some accuracy ● begin to apply a range of finishing techniques with some accuracy	purpose; explain choices ● work through a plan in order. ● realise if product is going to be good quality ● measure, mark out, cut and shape materials/components with some accuracy ● assemble, join and combine materials and components with some accuracy ● apply a range of finishing techniques with some accuracy	purpose; explain choices, considering functionality ● create and follow detailed step-by-step plan ● explain how product will appeal to an audience ● mainly accurately measure, mark out, cut and shape materials/components ● mainly accurately assemble, join and combine materials/components ● mainly accurately apply a range of finishing techniques ● use techniques that involve a small number of steps ● begin to be resourceful with practical problems	● select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics ● create, follow, and adapt detailed step-by-step plans ● explain how product will appeal to audience; make changes to improve quality ● accurately measure, mark out, cut and shape materials/components ● accurately assemble, join and combine materials/components ● accurately apply a range of finishing techniques ● use techniques that involve a number of steps ● be resourceful with practical problems

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different media can be combined for a purpose						

Evaluate						
Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Adapt work if necessary ● Dismantle, examine, talk about existing objects/structu res ● Consider and manage some risks ● Practise some appropriate safety measures independently ● Talk about how	talk about my work, linking it to what I was asked to do ● talk about existing products considering: use, materials, how they work, audience, where they might be used ● talk about existing products, and say what is and isn't good ● talk about things that	describe what went well, thinking about design criteria ● talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion ● evaluate how good existing products are ● talk about what I would do differently if I were to do it again and why	look at design criteria while designing and making ● use design criteria to evaluate finished product ● say what I would change to make design better ● begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose ● begin to understand by whom, when and where products were designed	refer to design criteria while designing and making ● use criteria to evaluate product ● begin to explain how I could improve original design ● evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose ● discuss by whom, when and where products were designed ● research whether products can be recycled or reused	● evaluate quality of design while designing and making ● evaluate ideas and finished product against specification, considering purpose and appearance. ● test and evaluate final product ● evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose ● begin to evaluate how much products cost to make and how innovative they are	evaluate quality of design while designing and making; is it fit for purpose? ● keep checking design is best it can be. ● evaluate ideas and finished product against specification, stating if it's fit for purpose ● test and evaluate final product; explain what would improve it and the effect different resources may have had ● do thorough evaluations of existing products considering: how well they've

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things work ● Look at similarities and differences between existing objects / materials / tools ● Show an interest in technological toys ● Describe textures	other people have made ● begin to talk about what could make product better		● learn about some inventors/designers / engineers/chefs/ manufacturers of ground-breaking products	● know about some inventors/designer s/ engineers/chefs/m anufacturers of ground-breaking products	● research how sustainable materials are ● talk about some key inventors/designers/ engineers/ chefs/manufacturers of ground-breaking products	been made, materials, whether they work, how they've been made, fit for purpose ● evaluate how much products cost to make and how innovative they are ● research and discuss how sustainable materials are ● consider the impact of products beyond their intended purpose ● discuss some key inventors/designers/ engineers/ chefs/manufacturers of ground-breaking products

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End of Key Stage Expectations		
	End of KS1 expectation	**End of KS2 expectation**
Design	• Design purposeful, functional, appealing products for themselves and other users based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	• 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 range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	• 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	• Explore and evaluate a range of existing products • *Evaluate their ideas and products against design criteria	• 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 Mechanics	• Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	• Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

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End of Key Stage Expectations		
	End of KS1 expectation	**End of KS2 expectation**
Technical Knowledge Food & nutrition	• Use the basic principles of a healthy and varied diet to prepare dishes • Understand where food comes from.	• Understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
Technical Knowledge Electrical Systems		• Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

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