DESIGN TECHNOLOGY PROGRESSION IN SKILLS AND KNOWLEDGE
YEAR 4 STATUTORY REQUIREMENTS

AUTUMN	SPRING	SUMMER
AUTUMN 2: DESIGN AND MAKE A PRODUCT CONTAINING AN ELECTRICAL CIRCUIT. *(Link to science unit – electricity)* – Illuminated Christmas Sign to advertise the Christmas play. **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.*** -Use ideas from other people when designing -Produce a plan and explain it -Persevere and adapt work when original ideas do not work -Communicate ideas in a range of ways, including by sketches and drawings which are annotated **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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.*** -Know which tools to use for a particular task and show knowledge of handling the tool -Know which material is likely to give the best outcome -Measure accurately **EVALUATE**: ***Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of***	**SPRING 1:** SHELL STRUCTURES (Easter Boxes). Link to *Projects on a Page* planning. **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.*** -Use ideas from other people when designing -Produce a plan and explain it -Persevere and adapt work when original ideas do not work -Communicate ideas in a range of ways, including by sketches and drawings which are annotated **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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.*** -Know which tools to use for a particular task and show knowledge of handling the tool -Know which material is likely to give the best outcome -Measure accurately	

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others to improve their work. Understand how key events and individuals in design and technology have helped shape the world *-Evaluate and suggest improvements for design* *-Evaluate products for both their purpose and appearance* *-Explain how the original design has been improved* *-Present a product in an interesting way* **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]. 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.*** -Links scientific knowledge by using lights, switches or buzzers -Use electrical systems to enhance the quality of the product -Use IT, where appropriate, to add to the quality of the product	**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*** -Evaluate and suggest improvements for design -Evaluate products for both their purpose and appearance -Explain how the original design has been improved -Present a product in an interesting way **FOOD TECHNOLOGY** ***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*** PASTA BOLOGNAISE  -Describe how food ingredients come together -Weigh out ingredients and follow a given recipe to create a dish -Talk about which food is healthy and which food is not -Know how to be both hygienic and safe when using food **Other specific skills:** Weigh, measure, peel, chop and slice, fry, stir.	

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KNOWLEDGE TO BE LEARNED BY THE END OF EACH UNIT (WHAT DO WE WANT THE CHILDREN TO KNOW AND REMEMBER?)

AUTUMN TERM	SPRING TERM	SUMMER TERM
• Know and understand the terms: ***design, functional, appealing, annotate, original, evaluate, product*** • Know the names of and the functions of the components of a simple electrical circuit • Know that lights have traditionally been used to advertise "shows" outside theatres eg in London.	• A net is a flat two-dimensional shape, which contains score lines and when is folded and glued together forms a three-dimensional shape. • Packaging is especially designed to be both attractive and practical. • Know the meaning of the terms ***weigh, measure, peel, chop and slice, fry and stir.***	

Children working at below Age Related Expectations in DESIGN TECHNOLOGY at the end of Year 4: