What will a Morpeth Partnership Designer look like?		
	At the end of Year 2 they will have the following knowledge:	At the end of Year 6 they will have the following knowledge:
Being an Morpeth Designer	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to: **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 **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 **Evaluate** -explore and evaluate a range of existing products -evaluate their ideas and products against design criteria **Technical knowledge** -build structures, exploring how they can be made stronger, stiffer and more stable -explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment]. When designing and making, pupils should be taught to: **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]

		-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

Progression of key skills from Y1 – Y6

	Developing, planning and communicating ideas.	**Working with tools, equipment, materials and components to make quality products (inc food)**	**Evaluating processes and products**
Early Years	-Select and use technology for particular purposes -Constructs with a purpose in mind -Use what is known about media and materials, thinking about uses and purposes. -Represent ideas, thoughts and feelings through Design Technology (art, design, music, role play and stories) -Understand the importance and need for safety and hygiene when planning to make	-Use a variety of resources -Use simple tools and techniques competently and appropriately -Select tools and techniques needed to shape, assemble and join materials -Safely use and explore a variety of tools, materials and techniques -Experiment with colour, texture, design, form and function. -Use simple tools to effect change to materials -Handle tools, objects, materials and construction safely and with increasing control -Practise some appropriate safety measures without direct supervision -Know about the need for safety, consider and manage some risks when preparing food -Know about the importance of hygiene when dealing with food.	-Select appropriate resources and adapt work where necessary -Use what is known about media and materials and its uses and purposes to improve work -Express ideas effectively, develop own explanations by connecting own ideas or events -Link statements together and stick to a main theme or intention when talking about design product
End of Year 1	- Draw on their own experience to help generate ideas - Suggest ideas and explain what they are going to do - Identify who their design is for	- Make their design using appropriate techniques -With help measure, mark out, cut and shape a range of materials - Use tools eg scissors and a hole punch safely - Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape	- Verbally evaluate their products identifying strengths and possible changes they might make -Talk about their ideas, saying what they like and dislike about them

	- Model their ideas -Talk about how they would improve their idea	- Select and use appropriate ingredients, processes and tools - Use basic food handling, hygienic practices and personal hygiene - Use simple finishing techniques to improve the appearance of their product	
End of Year 2	-Generate ideas by drawing on their own and other people's experiences as well as knowledge of existing products -Communicate and develop their design ideas through discussion, observation, drawing and modelling -Identify a purpose and create a simple design criteria -Make simple drawings and label parts	-Begin to select tools and materials; use vocabulary to name and describe them, and explain choices for use -Measure, cut and score with some accuracy -Use hand tools safely and appropriately -Assemble, join and combine materials and components in order to make a product -Cut, shape and join fabric to make a simple garment. -Use basic sewing techniques -Follow safe procedures for food safety and hygiene -Choose and use appropriate finishing techniques	-Evaluate against their design criteria -Evaluate their products as they are developed, identifying strengths and possible changes they might make - Evaluate their product by answering simple questions about the design/make process
End of Year 3	-Research and generate ideas for an item, considering its purpose and audience -Identify a purpose and establish criteria for a successful product -Plan the order of their work before starting -Explore, develop and communicate design proposals by modelling ideas (including use of ICT) -Make drawings with labels and annotations when designing	-Use tools and techniques for making their product to fit the needs of the task and purpose safely -Measure, mark out, cut, score and assemble components with more accuracy -Work safely and accurately with a range of simple tools -Think about their ideas as they make progress and be willing to change things if this helps them improve their work -Measure, tape or pin, cut and join fabric with some accuracy -Demonstrate hygienic food preparation and storage -Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT	-Evaluate their product against original design criteria e.g. how well it meets its intended purpose/audience -Evaluate their product by asking and answering questions about the design/make process -Identify strengths and improvements in relation to views of the target audience/purpose
End of Year 4	-Research and generate realistic ideas, considering the purpose, ensuring specific design features	-Use appropriate tools and techniques for making their product in relation to functional properties	- Evaluate their work both during and at the end of the

	appeal to the target audience -Make annotated, labelled diagram from different views showing specific features -Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail -Disassemble existing products, evaluate and identify criteria that can be used to inform and improve their own designs	and requirements safely -Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques -Join and combine materials and components accurately in temporary and permanent ways -Sew using a range of different stitches, weave and knit -Measure, tape or pin, cut and join fabric with some accuracy -Use simple graphical communication techniques	assignment -Evaluate their products and carrying out appropriate tests
End of Year 5	-Generate ideas using labelled drawings -Learn how to use equipment, materials, tools and processes -Use the results of investigations when developing design ideas.	-Use appropriate materials, tools and techniques safely -Measure and mark out accurately -Apply basic health and safety practices when using machines, tools, materials and processes -Cut and join with accuracy to ensure a good-quality finish to the product	- Evaluate a product stating strengths, weaknesses and areas for improvement
End of Year 6	- Communicate their ideas through detailed drawings with explanatory labels - Explore, develop and communicate aspects of their design proposals - Manage the order of their work, using appropriate materials, tools and techniques	- Use appropriate tools, materials, components and techniques safely - Model their ideas effectively - Construct products using appropriate techniques - Make changes as they go along - Make a quality product	- Evaluate their products, identifying strengths, weaknesses and areas for development - Evaluate against their original criteria and suggest ways that their product could be improved.
End of Year 7	- Communicate thoughts about ideas using relevant annotation, identifying problems - Develop a design specification using ACCESS FM - Create a moodboard to inspire your design - Plan the order of their work including processes they will use	- Create and use templates to accurately shape materials - Select and use appropriate tools, materials and components safely - Construct products using a variety of techniques - Produce an effective product	- Evaluate products against design criteria - Use more than one method of evaluating your product recording their results
End of Year 8	- Communicate thoughts about ideas using relevant	- Create and use templates to accurately cut	- Evaluate products against design criteria

	annotation, identifying problems offering solutions - Take into account constraints when designing ideas - Develop ideas modifying ideas in relation to feedback - Perform independent research - Analyse existing products to inform the design and make process - Identify quality control checks when planning how to make a product	pieces to create more complex products - Select and use appropriate tools, materials and components safely and accurately - Construct products to plan and fulfil set criteria - Adapt and refine products throughout the making process - Produce a will finished, effective and quality product	identifying areas of future development and for industrial manufacture - Use a range of evaluating techniques, comparing results
End of Year 9			

Concepts in Design Technology

At the end of Early Years Foundation Stage, the pupils will have developed an understanding of the following concepts in Design Technology;	**At the end of Key Stage 1, the pupils will have developed an understanding of the following concepts in Design Technology;**	**At the end of Key Stage 2, the pupils will have developed an understanding of the following concepts in Design Technology;**	**At the end of Key Stage 3, the pupils will have developed an understanding of the following concepts in Design Technology;**
Tools, ideas, safety, design, make, plan, colour, describe, make better, explore, mix, texture, playdough, junk model, construction, build, scissors, glue, cellotape, shape, join, draw, label, healthy, clean, control	Model, generate, explain, target audience, purpose, research, measure, plan, equipment, product, hygiene, technique, evaluate, question, strength, sequence, improve, changes, likes, dislikes, fabric, features, design criteria, finishing techniques, materials, tools,	Healthy living, health and safety, designing to a brief, communicating ideas, labelling	Sustainability, environmental concerns, industrial manufacture, designing for an end user, annotation, drawing techniques, cultural awareness, quality control, special diets