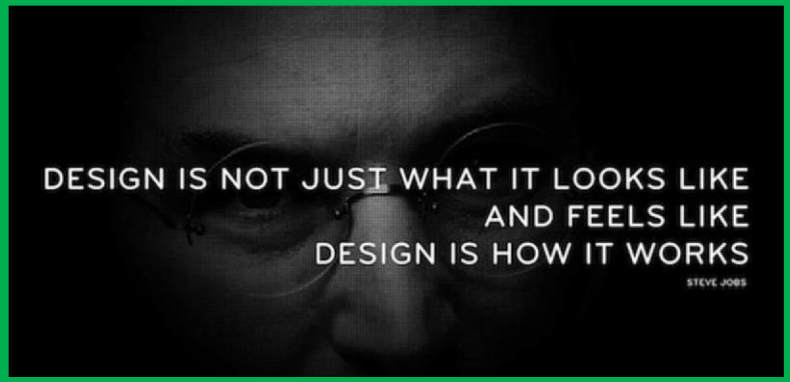
Humberston Cloverfields

Design & Technology Progression of Skills and End Points



	EYFS	Y1/2	Y3/4	Y5/6
To master practical skills	**Food** Mix or assemble ingredients. **Materials** Cut materials safely using tools provided under supervision Develop a range of cutting and shaping techniques (such as tearing, cutting, and folding) Develop a range of joining techniques (such as gluing, sticking or combining materials to strengthen). **Construction** Use materials to practise gluing materials to make and strengthen products.	**Food** Measure or weigh using measuring cups or electronic scales. Assemble or cook ingredients. **Materials** Cut materials safely using tools provided. Measure and mark out to the nearest centimetre. Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). Demonstrate a range of joining techniques (such as gluing or combining materials to strengthen). **Textiles** Shape textiles using templates. Join textiles using different methods e.g stapling, gluing or stitching. Colour and decorate textiles using a number of techniques (such as using fabric pens, adding sequins). **Construction** Use materials to practise gluing materials to make and strengthen products.	**Food** Cut, peel or grate ingredients safely Prepare ingredients hygienically using appropriate utensils. Measure ingredients to the nearest gram accurately. Follow a recipe. Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking). **Materials** Cut materials accurately and safely by selecting appropriate tools. Measure and mark out to the nearest millimetre. Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Select appropriate joining techniques. **Textiles** Understand the need for a seam allowance. Join textiles with appropriate stitching. Select the most appropriate techniques to decorate textiles. **Construction** Choose suitable techniques to construct products or to repair items.	**Food** Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. Demonstrate a range of baking and cooking techniques. Create and refine recipes, including ingredients, methods, cooking times and temperatures. Demonstrate knowledge of seasonality. **Materials** Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper). **Electricals and Electronics** Create circuits using electronics kits that employ a number of components **Computing**

				Write code to control and monitor models or products. **Construction** Develop a range of practical skills to create products (such as cutting and gluing). Strengthen materials using suitable techniques. **Mechanics** Convert rotary motion to linear using cams. Use combinations of electronics (or computing) and mechanics in product designs.
To design, make, evaluate and improve	Design, make and evaluate a simple product	Design products that have a clear purpose and an intended user. Make products, refining the design as work progresses.	Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials). Refine work and techniques as work progresses, continually evaluating the product design.	Design with the user in mind, motivated by the service a product will offer (rather than simply for profit). Make products through stages of prototypes, making continual refinements. Ensure products have a high quality finish, using art skills where appropriate.
		Make diagrams to show design. Develop own design criteria.	Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams	Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.
To take inspiration from design throughout history	Explore a range of objects to identify likes and dislikes	Explore objects and designs to identify likes and dislikes of the designs. Suggest improvements to existing designs. Explore how products have been created.	Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. Improve upon existing designs, giving reasons for choices. Disassemble products to understand how they work.	Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. Create innovative designs that improve upon existing products. Evaluate the design of products so as to suggest improvements to the user experience.

End Points in Learning in the Design and Technology Curriculum

Year 2	Year 4	Year 6
•Pupils can design and make products that solve real and relevant problems within a variety of contexts •Pupils can consider their own and others' needs, wants and values when considering design criteria •Pupils can use and apply mathematics, science, computing and art through DT •Pupils can learn how to take calculated risks in designing stage •Pupils can evaluate and test their ideas and products against a design criteria •Pupils can understand the basic principles of a healthy diet •Pupils understand where food has come from	• Pupils can use creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts • Pupils can acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art during the design process • Pupils can learn how to take risks, becoming resourceful, • innovative, enterprising and capable citizens • Pupils can critique, evaluate and test their ideas and products and the work of others • Pupils can evaluate and test their ideas and products against a design criteria • Pupils can generate develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams • Pupils can understand the principles of a healthy diet	• Pupils can use creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values • Pupils can acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art in the design process. • Pupils can through the evaluation of past and present design and technology develop a critical understanding of its impact on daily life and the wider world • Pupils can critique, evaluate and test their ideas and products and the work of others effectively. • Pupils use prototypes, cross-sectional diagrams and computer aided designs to represent designs. • Pupils can build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users. • Pupils can use mechanical systems in their designs • Pupils can understand and apply the principles of nutrition • Pupils understand seasonality in relation to ingredients grown at different times of the year.