7.1 Progression of skills in EYFS

	Development Matters & ELG
Nursery	**Nursery:** **Communication & Language:** Use a wider range of vocabulary. **Personal, Social, Emotional Development:** Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them. Physical Development: Use one-handed tools and equipment, for example, making snips in paper with scissors. Understanding the World: Explore how things work. Talk about the differences between materials and changes they notice. **Expressive arts and design:** Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, in order to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures
Reception	**Reception:** **Communication & Language:** Learn new vocabulary Use new vocabulary through the day **Physical Development** Progress towards a more fluent style of moving, with developing control and grace. Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. **Expressive arts and design:** Explore, use and refine a variety of artistic effects to express their ideas and feelings. Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills. **ELG** **Physical Development:** Use a range of small tools, including scissors, paintbrushes and cutlery. **Expressive Arts & Design:** Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.

7.2 Progression of Skills EYFS & KS1 & KS2 - Design, make, evaluate and improve

KS1	• Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design.
LKS2	• 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. • Use software to design and represent product designs.
UKS2	• 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. • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.

7.3 Progression of Skills KS1 & KS2 – Take inspiration from design throughout history

This concept involves appreciating the design process that has influenced the products we use in everyday life.

KS1	• Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created.
Lower KS2	• 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.
Upper KS2	• 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

7.4 Progression of Skills KS1 & KS2 – Master practical skills – General skills

This concept involves developing the skills needed to make high quality products.

KS1	• 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, hinges or combining materials to strengthen).
Lower KS2	• 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.
Upper KS2	• 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).

7.5 Progression of Skills KS1 & KS2 – Master practical skills -Textiles

This concept involves developing the skills with textiles needed to make high quality products.

KS1	• Shape textiles using templates. • Join textiles using running stitch. • Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).
Lower KS2	• Understand the need for a seam allowance. • Join textiles with appropriate stitching. • Select the most appropriate techniques to decorate textiles.
Upper KS2	• Create objects (such as a cushion) that employ a seam allowance. • Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). • Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).

7.6 Progression of Skills KS1 & KS2 – Master practical skills - Structures

This concept involves developing the skills with structures needed to make high quality products.

KS1	• Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.
Lower KS2	• Choose suitable techniques to construct products or to repair items. • Strengthen materials using suitable techniques
Upper KS2	• • Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).

7.7 Progression of Skills KS1 & KS2 – Master practical skills - Mechanisms

This concept involves developing the skills needed to make high quality products (we have highlighted a range of skills but they may be added to or changed

KS1	• Create products using levers, wheels and winding mechanisms.
Lower KS2	• Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).
Upper KS2	• Convert rotary motion to linear using cams. • Use innovative combinations of electronics (or computing) and mechanics in product designs.

7.8 Progression of Skills KS1 & KS2 – Master practical skills - Computing

This concept involves developing the skills with computing needed to make high quality products (we have highlighted a range of skills but they may be added to or changed

KS1	Model designs using software.
Lower KS2	Control and monitor models using software designed for this purpose.
Upper KS2	Write code to control and monitor models or products.

7.9 Progression of Skills KS1 & KS2 – Cooking and Nutrition

This concept involves developing the skills with cooking needed to make high quality products (we have highlighted a range of skills but they may be added to or changed

Nursery	• Talk about some of the benefits of eating healthy food. (different nutrients) • Show some understanding of good practices regarding eating and hygiene. (hand washing, rolling sleeves up, wearing an apron) • Begin to understand the importance of cleaning own teeth.
Reception	• Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. • Experience of cutting soft fruit and vegetables using appropriate utensils. • Express own preferences about the food.
KS1	• Cut, peel or grate ingredients safely and hygienically. • Measure or weigh using measuring cups or electronic scales. • Assemble or cook ingredients.
Lower KS2	• 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).
Upper KS2	• 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.

7.10 Progression of Skills KS1 & KS2 – Master practical skills – Electricals and Electronics

This concept involves developing the skills with electricals and electronics needed to make high quality products (we have highlighted a range of skills but they may be added to or changed

KS1	• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage)
Lower KS2	• Create series and parallel circuits
Upper KS2	• Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).