ELG: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

Year 1 Progression Overview			
Skills	Knowledge	Vocabulary	Arriving in Year 2 able to…
. Begin to draw on their own experience to help generate ideas and research conducted on criteria. . Start to suggest ideas and explain what they are going to do. . Begin to develop their ideas through talk and drawings. Make templates and mock ups of their ideas in card and paper or using ICT. . Design using appropriate techniques. . Begin to build structures, exploring how they can be made stronger, stiffer and more stable. . When looking at existing products explain what they like and dislike about products and why. . Start to evaluate their product by discussing how well it works	. Begin to understand the development of existing products: What they are for, how they work, materials used. . Understand how to identify a target group for what they intend to design and make based on a design criteria. . Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make. . Begin to understand that all food comes from plants or animals. . Explore the understanding that food has to be farmed, grown elsewhere (e.g. home) or caught. . Start to understand how to name and sort foods into the five groups in 'The Eat well plate' . Begin to understand that everyone should eat at least five	Design Plan Make Evaluate Design criteria Construct/Build Mechanism Lever/Slider/Wheel/Axle Cement/Stone/Iron/Steel/Brick/Wood Tin/Bamboo/Plastic/Glass/Lead/Foam Stable Weak/Strong Structure Farmed Harvested Criteria Carbohydrates Fats/Oils Protein Dairy/ Alternatives Fruits and Vegetables Chop/peel/stir/spread	. Use knowledge of existing products to help form ideas. . Generate ideas from their own experiences. . Develop and communicate ideas by talking and drawing. . Use simple design criteria to help develop their ideas. . Make simple judgements about their products and ideas against design criteria. . Express likes and dislikes of finished products. . Use the correct technical vocabulary to describe different sheet materials, including joining and strengthening. . Select from a range of tools and equipment. . Know that everyone should eat at least five portions of fruit and vegetables every day. . Follow procedures for safety and hygiene.

in relation to the purpose (design criteria). . Know how to prepare simple dishes safely and hygienically, without using a heat source. . Know how to use techniques such as cutting, peeling and grating.	portions of fruit and vegetables every day.		. Use the correct technical vocabulary to describe food and ingredients, including taste, smell, texture and feel.

Year 2 Progression Overview

Skills	Knowledge	Vocabulary	Arriving in Year 3 able to…
. Start to generate ideas by drawing on their own and other people's experiences. . Begin to develop their design ideas through discussion, observation, drawing and modelling. .Develop their ideas through talk and drawings and label parts. Make templates and mock ups of their ideas in card and paper or using ICT. . Begin to select tools and materials; use correct vocabulary to name and describe them. . Build structures, exploring how they can be made stronger, stiffer and more stable.	. Identify a purpose for what they intend to design and make. . Understand how to identify a target group for what they intend to design and make based on a design criteria. . With confidence talk about their ideas, saying what they like and dislike about them. . Have a knowledge of tools and materials and the correct vocabulary to name and describe them. . Understand how materials can be made stronger, stiffer and more stable. . Understand how to measure, cut and score using appropriate tools. . Know the names of hand tools and understand how and why to	Design Plan Make Evaluate Mechanism Lever/Slider/Wheel/Axle Construct/Build Cement/Stone/Iron/Steel/Brick/Wood Tin/Bamboo/Plastic/Glass/Lead/Foam Stable Weak/Strong Structure Felt/Cotton/Nylon/Hessian/Jersey/Chiffon/ Wool/Polyester/Bamboo/Binca/Calico Needle/Unpick/Sew Paper/Tissue Paper Toothpicks Glitter String Poppers/Zips/Clips	. 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. . 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.

. Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. . With help measure, cut and score with some accuracy. . Learn to use hand tools safely and appropriately. . Start to assemble, join and combine materials in order to make a product. . Demonstrate how to cut, shape and join fabric to make a simple product. Use basic sewing techniques. . Start to choose and use appropriate finishing techniques based on own ideas. . Evaluate their work against their design criteria. . Look at a range of existing products explain what they like and dislike about products and why. . Start to evaluate their products as they are developed, identifying strengths and possible changes they might make.	use them safely and appropriately. . Understand how to cut, shape and join fabric to make a simple product. . Know the name of basic sewing stitches and techniques. . Have an understanding of basic finishing techniques and when and how to use them.	Pipe cleaners Beads Cut/Stick/Twist/Poke/Spin/Attach Test/Bend/Snap/Push/Cover/Decorate/Slide Pad/Stretch/Wrap Stiches: Running/Blanket/Chevron/Backstitch	. Explore and evaluate a range of existing products. . Evaluate their ideas and products against design criteria. . 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. . Use the basic principles of a healthy and varied diet to prepare dishes. . Understand where food comes from.

Year 3 Progression Overview			
Skills	Knowledge	Vocabulary	Arriving in Year 4 able to…
. With growing confidence generate ideas for an item, considering its purpose and the user/s. .Start to order the main stages of making a product. . Identify a purpose and establish criteria for a successful product. . Make drawings with labels when designing. . When planning explain their choice of materials and components including function and aesthetics. . Select a wider range of tools and techniques for making their product . Explain their choice of tools and equipment in relation to the skills and techniques they will be using. . Measure, mark out, cut, score and assemble components with more accuracy. . Start to work safely and accurately with a range of simple tools.	. Understand the main stages of making of a product. . Know how to identify a purpose and establish criteria for a successful product. . Understand how well products have been designed, made, what materials have been used and the construction technique. . Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. .Start to understand whether products can be recycled or reused. .Know to make drawings with labels when designing. . Know that there are a wider range of tools and techniques for making their product i.e. construction materials and kits, food ingredients, mechanical components. . Start to understand that mechanical systems have an input, process and output.	Design Plan Make Evaluate Farmed Harvested Criteria Carbohydrates Fats/Oils Protein Dairy/ Alternatives Fruits and Vegetables Chop/peel/stir/spread Bake/roast/baste Spatula/colander/knife/sieve Exploded drawing/Graphics Function Construct Score/Assemble Aesthetic Product Attach Tube/ pneumatics/ Pressure/Force/Tension	. Investigate similar products to get ideas, list key features and understand how they work. . Describe the purpose of their products. . List design features that will appeal to intended users. . Develop design criteria to inform ideas. . Select suitable tools and equipment. . List the order of the main stages of making. . Know how to use a range of techniques such as mixing, spreading, kneading and baking. . Measure food ingredients with increasing accuracy. . Explain choice of tools and equipment depending on skills and techniques to be used . Measure, mark out, cut and shape a range of materials and components with increasing accuracy. . Assemble, join and combine materials and components with increasing accuracy.

. Start to think about their ideas as they make progress and be willing to change things if this helps them to improve their work. . Start to evaluate their product against original design criteria e.g. how well it meets its intended purpose. . Begin to disassemble and evaluate familiar products and consider the views of others to improve them. . Evaluate the key designs of individuals in design and technology has helped shape the world. . Begin to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	. Start to understand that mechanical systems such as levers and linkages or pneumatic systems create movement. . Understand how to measure, mark out, cut, score and assemble components with more accuracy. . Understand how to work safely and accurately with a range of simple tools. . Understand how to evaluate their product against original design criteria e.g. how well it meets its intended purpose . Have an understanding of how to disassemble and evaluate familiar products and consider the views of others to improve them. . Understand how the key designs of individuals in design and technology has helped shape the world. . Start to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. . Understand how to prepare and cook a variety of predominantly		. Apply a range of finishing techniques, with increasing accuracy. . Use an increasing and correct technical vocabulary to describe different mechanical mechanisms. . Identify strengths and areas for development in ideas and products. . Refer to design criteria during progress and to evaluate completed products. . Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.

	savoury dishes safely and hygienically including, where appropriate, the use of a heat source. . Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. . Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' . Begin to know that to be active and healthy, food and drink are needed to provide energy for the body.		
Year 4 Progression Overview			
Skills	Knowledge	Vocabulary	Arriving in Year 5 able to…
. Start to generate ideas, considering the purposes for which they are designing- link with Mathematics and Science. . Confidently make labelled drawings from different views showing specific features. . Develop a clear idea of what has to be done, planning how to use materials, equipment and	. Know how to make labelled drawings from different views showing specific features. . Develop an understanding on how to use materials, equipment and processes, and know alternative methods of making, if the first attempts fail. . Begin to understand the strengths and areas for	Design Plan Make Evaluate Design Criteria Exploded drawing Felt/Cotton/Nylon/Hessian/Jersey/Chiffon/ Wool/Polyester/Bamboo Fabric glue Paper/Tissue Paper	. Investigate similar products to get ideas, list key features and understand how they work. . Describe the purpose of their products. . Explain how parts and whole of products work and how they will be made. . Develop design criteria to inform ideas.

processes, and suggesting alternative methods of making, if the first attempts fail. . Identify the strengths and areas for development in their ideas and products. . When planning consider the views of others, including intended users, to improve their work. . When planning explain their choice of materials and components according to function and aesthetic. . Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. . Start to join and combine materials and components accurately in temporary and permanent ways. . Program a computer to monitor changes in the environment and control their products. . Reinforce and strengthen a 3D framework.	development in ideas and products. . Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. . Have a knowledge of basic materials and components according to function and aesthetic. . Understand that there are a wider range of tools and techniques for making products safely. . Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. . Have a basic understanding of how to join and combine materials and components accurately in temporary and permanent ways. . Understand how more complex electrical circuits and components can be used to create functional products. . Continue to learn how to program a computer to monitor	Toothpicks Glitter String Poppers/Zips/Clips Pipe cleaners Beads Cut/Stick/Twist/Poke/Spin/Attach Test/Bend/Snap/Push/Cover/Decorate/Slide Pad/Stretch/Wrap Thimble/quilting Scoring Stiches: Running/Blanket/Chevron/Backstitch Herringbone/Feather Circuit/Amp/Voltage/Conductor/Insulator Series circuit/Parallel Circuit/ Short circuit Input/output Battery/Holder/Bulb	. Make design decisions taking account of the availability of resources. . Select suitable tools and equipment and materials and components and explain choice. . List the order of the main stages of making and produce lists of required tools, equipment and materials measure, mark out, cut and shape textile materials with increasing accuracy. . Assemble, join and combine textile materials with increasing accuracy. . Apply a range of finishing techniques, with increasing accuracy. . Understand that materials can be combined and mixed to create more useful characteristics. . Use technical vocabulary correctly and with increasing regularity to describe sewing techniques and fabrics. . Identify strengths and areas for development in ideas and products. . Consider and list ways to improve designs or products, taking into account the views of others, for example, intended users.

. Sew using a range of different stitches, to weave and knit and know the names of them. . Demonstrate how to measure, tape or pin, cut and join fabric with some accuracy. . Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.	changes in the environment and control their products. . Understand how to reinforce and strengthen a 3D framework. . Understand that there are a range of different stitches used to weave and knit and know the vocabulary to name them. . Have an understanding of how to measure, tape or pin, cut and join fabric with some accuracy. . Begin to have an understanding of basic finishing techniques to strengthen and improve the appearance of a product using a range of equipment including ICT.		. Refer to design criteria during progress and evaluate completed products. . Choose materials and methods of construction. . Find out where and when products designed and made. . Establish whether products can be recycled or reused.

Year 5 Progression Overview

Skills	Knowledge	Vocabulary	Arriving in Year 6 able to…
. Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD. . Begin to use research and develop design criteria to inform the design of innovative,	. Understand how to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD. . Begin to have an understanding of how to use research and develop design criteria to inform the design of innovative,	Design Plan Make Evaluate Farmed Construct Specification Harvested Criteria Carbohydrates Fats/Oils	. Research information about the needs and wants of users; later using surveys, interviews, questionnaires and web-based resources. . Develop design criteria to inform ideas; later developing a simple design specification as a guide. . Make design decisions taking account of the availability of

functional, appealing products that are fit for purpose. . With growing confidence apply a range of finishing techniques, including those from art and design. . Draw up a specification for their design- link with Mathematics and Science. . Use results of investigations, information sources, including ICT when developing design ideas. . With growing confidence select appropriate materials, tools and techniques. . Select from and use a wider range of materials according to their functional properties and aesthetic qualities. . Use mechanical systems such as cams or pulleys or gears to create movement. . Begin to measure and mark out more accurately. . Demonstrate how to use skills in using different tools and equipment safely and accurately.	functional, appealing products that are fit for purpose. . Have a knowledge of a range of finishing techniques, including those from art and design. . Understand how to draw up a specification for their design- link with Mathematics and Science. . Know how to select appropriate materials, tools and techniques. . Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose. . Understand that there are a wider range of materials according to their functional properties and aesthetic qualities. . Have an understanding how mechanical systems such as cams or pulleys or gears create movement. . Understand that mechanical and electrical systems have an input, process and output. . Have knowledge of how to use skills in using different tools and equipment safely and accurately.	Protein Vitamins Dairy/ Alternatives Fruits and Vegetables Chop/peel/stir/spread Junior hacksaw/pliers/clamp Exploded drawing CAD – computer-aided design CAM – computer-aided manufacture Cam-eccentric/Follower/shaft Gear/Fulcrum/Pivot Aesthetic Durability Flexibility/Malleability Prototype	resources and constraints such as time, resources and cost. . Use computer-aided design software. . Know that food is grown, reared, and caught in the UK, Europe and the wider world and that seasons may affect the food available. . Know that a healthy diet is made up from a variety and balance of different foods and drinks and that to be active and healthy, food and drink are needed to provide energy for the body. . Select and explain choice of tools and equipment depending on skills and techniques to be used. . Select and explain choice of materials and components to fit functional properties and aesthetic qualities. . List the order of the main stages of making and produce lists of required tools, equipment and materials. . Demonstrate resourcefulness when tackling practical problems. . Use learning from science and mathematics. . Use technical vocabulary correctly and with increasing regularity to

. With growing confidence cut and join with accuracy to ensure a good-quality finish to the product. . Start to evaluate a product against the original design specification and by carrying out tests. . Evaluate their work both during and at the end of the assignment. . Begin to evaluate it personally and seek evaluation from others. . Evaluate the key designs of individuals in design and technology has helped shape the world. . Prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. . Start to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	. Know how to evaluate a product against the original design specification and how to carry out tests. . Have an understanding of the key designs of individuals in design and technology and how they have helped shape the world. . Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. . Begin to understand that seasons may affect the food available. . Understand how food is processed into ingredients that can be eaten or used in cooking. . Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. . Start to understand how to use a range of techniques such as peeling, chopping, slicing, grating,		describe different mechanisms and electrical circuits. . Understand that mechanical and electrical systems have an input, process and output. . Refer to design criteria during progress and evaluate completed products. . Critically evaluate products – the quality of design, effectiveness of materials used, method of manufacture and fitness for purpose. . Evaluate effectiveness of meeting user needs and wants. . Discover how sustainable materials are used, whether products can be recycled or reused. . Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.

	mixing, spreading, kneading and baking. . Begin to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.		

Year 6 Progression Overview

Skills	Knowledge	Vocabulary	End of Key Stage 2 able to…
. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD. . Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. . Identify the strengths and areas for development in their ideas and products. . Accurately apply a range of finishing techniques, including those from art and design. . Draw up a specification for their design- link with Mathematics and Science.	. Understand how to develop a design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. . Have knowledge of a range of finishing techniques, including those from art and design. . Have knowledge of appropriate materials, tools and techniques. .Know how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose. . Understand how to select appropriate tools, materials, components and techniques and how to use them.	Design Plan Make Evaluate Design criteria Felt/Cotton/Nylon/Hessian/Jersey/Chiffon/ Wool/Polyester/Bamboo Paper/Tissue Paper Toothpicks Glitter String Poppers/Zips/Clips Pipe cleaners Beads Cut/Stick/Twist/Poke/Spin/Attach Test/Bend/Snap/Push/Cover/Decorate/Slide Pad/Stretch/Wrap Stiches: Running/Blanket/Chevron/Backstitch Herringbone/Feather	. 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. . 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,

. Plan the order of their work, choosing appropriate materials, tools and techniques. Suggest alternative methods of making if the first attempts fail. . Confidently select appropriate tools, materials, components and techniques and use them. . Use tools safely and accurately. . Assemble components to make working models. . Aim to make and to achieve a quality product. . With confidence pin, sew and stitch materials together to create a product. . Demonstrate how to make modifications as they go along. . Construct products using permanent joining techniques. . Create functional products and program a computer to monitor changes in the environment and control products. . Reinforce and strengthen a 3D framework. . Use finishing techniques to strengthen and improve the appearance of their product	. Know how to use tools safely and accurately. . Know how to pin, sew and stitch materials together to create a product. . Understand when to make modifications as they go along. . Have an understanding of permanent joining techniques. . Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products. . Know how to reinforce and strengthen a 3D framework. . Understand that mechanical and electrical systems have an input, process and output. . Understand how to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT. . Know how to evaluate their products, identifying strengths and areas for development, and carry out appropriate tests.	Hem/Unpick/Bond/Bind Circuit/Amp/Voltage/Conductor/Insulator Series circuit/Parallel Circuit Resistance Rheostat (dimmer) CAD – computer-aided design CAM – computer-aided manufacture Prototype Exploded design	textiles and ingredients, according to their functional properties and aesthetic qualities. . 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. . Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. . 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.

using a range of equipment including ICT. . Evaluate their products, identifying strengths and areas for development, and carry out appropriate tests. . Evaluate their work both during and at the end of the assignment. .Record their evaluations using drawings with labels. . Evaluate the key designs of individuals in design and technology has helped shape the world.	. Know how to evaluate against their original criteria and suggest ways that their product could be improved. . Have knowledge of how the key designs of individuals in design and technology have helped shape the world.		