Steeple Claydon School Progression Criteria – (Design and Technology)

Planning, Knowledge & Evaluation							
Substantive and Disciplinary knowledge	**EYFS**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Design	Use what they have learnt about media and materials in original ways, thinking about uses and purposes.	Think of own ideas for design and use pictures and words to plan. Draw a simple picture of an intended design with basic labelling. Work in a range of contexts.	Produce detailed, labelled drawings or models of products based on design criteria. Develop and communicate designs using diagrams and templates.	Share ideas through words, labelled sketches and models, recognising that designs have to meet a range of needs, including being fit for purpose.	Collect information from a number of different sources and use this to inform design ideas in words, labelled sketches, diagrams and models, keeping in mind fitness for purpose and the end user.	Use various sources of information (i.e. user's views), clarifying/ sharing ideas through discussion, labelled sketches, cross-sectional diagrams, prototypes and modelling, recognising that ideas have to meet a range of needs.	Use research to develop design criteria to design innovative, functional, appealing products that are fit for a purpose, aimed at particular groups. (i.e. using surveys, or ICT). Use discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes and pattern pieces to explain plan.
Working from plans	With help, put directed ideas into practice.	Think of ideas and, with support put these ideas into a plan. Make simple decisions about materials and components.	Think of ideas and plan what to do next, based on their experience of working with materials and components.	Make realistic plans, identifying processes, equipment and materials needed.	Make realistic, step by step plans, reflecting on designs as the product develops.	Work from own detailed plans, modifying them where appropriate.	Check work as it develops and modify their approach in the light of progress.

Steeple Claydon School Progression Criteria – (Design and Technology)

Opinion and influence	Talk about what they like and dislike about a product	Describe others' work, including work by professional craftspeople and designers and say what they like and dislike about it.	Compare and contrast great designs, explaining why a particular design is signi-ficant in engineering hist ory.	Describe similarities and differences between own and others' work including work by professional craftspeople and designers.	Describe the work of a favourite fashion designer and explain why they like his/her designs.	Research the work done by textile artists and say what they like about a piece, identifying the techniques and materials used in creating it and the aesthetic value.	Research cultural traditions and evidence their influence in their own work.
Existing product evaluation	Begin to question and talk about a product's use.	Describe how an existing product works (e.g. 'the toy moves when I turn the handle').	Investigate a range of existing product s and say if they do what they are supposed to do.	Investigate the design features (including identifying compo nents or ingredients) of familiar existing products.	Understand the design features of a product and explain how an existing product is useful to the user.	Investigate the design features (including identifying compon ents or ingredients) of a familiar existing product in the context of the culture or society in which it was designed or made.	Explain the form and function of familiar existing products and use this to support their own planning/designing ideas.
Evaluation	Begin to discuss their own work, what they like and dislike about it.	Talk about their own work and others' work identifying strengths or weaknesses.	Explain how closely, finished products, meet their design criteria and say what they could do better in the future.	Suggest improvements to products made and describe how to implement them (taking the views of others into account).	Identify what has worked well and what could be improved, evidencing and explaining the results of research.	Test and evaluate products against a detailed design specification and make adaptations as they develop the product.	Demonstrate modifications made to a product, as a result of ongoing evaluation, by themselves and others.
History and culture		Order products or designs chronologically and begin to explain reasons	Describe why a design, building or designer is important.	Explain the impact of a design or designer on design	Explain how fashions and fabrics have changed over time and how this has	Understand the sequence of the development of a design over time and describe	Describe how an individual in the fi-eld of design and technology has

Steeple Claydon School Progression Criteria – (Design and Technology)

		why they are ordered in that way.		history and how this has helped to shape the world.	affected fashion. Explain how the design of a product has changed over time.	how technology has influenced it.	helped shape the world.
Vocabulary for planning, knowledge and evaluation	Build, make	Design criteria, plan, product, attach, model, structure, change, stable, evaluate, user		Design brief, construct, join, appearance, labelled diagram, customer survey, improve, strengthen, health and safety, fit for purpose		Mock up, alter, modify, analyse, combine, parameters, requirements, prototype, annotated diagram, cross-sectional, dismantle, disassemble, graphics, malleable	

Steeple Claydon School Progression Criteria – (Design and Technology)

Making, Using & Understanding				
	EYFS	**End of KS1**	**End of Year 4**	**End of KS2**
Tools and materials	Handle simple tools to effect changes to materials, with increasing control. Begin to talk about why they wish to use a particular material.	Choose appropriate tools and equipment; explain why they are being used. Choose appropriate materials and suggest ways of manipulating them to achieve a desired effect.	Analyse the potential of a range of tools and use them with some accuracy. Begin to choose from a range of materials to suit a task with some support, showing an understanding of their different characteristics.	Name, select and use more complex tools and equipment with increasing accuracy. Choose the best materials for a task, showing an understanding of their working characteristics.
Health and safety	Discuss, with adults, what safety is and how we can keep safe.	Work safely and hygienically in construction and cooking activities.	Follow health and safety rules when cooking and baking, working with materials and substances.	Select and name appropriate tools for specific jobs and demonstrate how to use them safely. Demonstrate how their products take into account the safety of the user.
Textiles	Decorate fabrics using glue, fabric pens and scissors.	Cut out shapes from a range of fabrics and papers. Join fabrics using glue and tape.	Use a simple pattern to create a product, fit for purpose. Use running stitch and cross stitch to add detail and join fabrics together.	Create an embroidery product using a range of materials and sewing techniques. of high quality, checking for snags and glitches.
Vocabulary for textiles	Fabric, scissors	Felt, bead, button, centimetre, fabric pens, fabric crayons, pattern, ribbon, eyelet pliers, eyelet, hammer	Thread, Velcro, stitch, tape measure, running stitch, binca, hook and eye, press stud	Sampler, cross stitch, back stitch, loom, sewing machine

Steeple Claydon School Progression Criteria – (Design and Technology)

Cutting	Begin to cut using scissors with close adult supervision	Cut different materials including fabric, card and paper safely with scissors.	Measure, mark and cut wood/dowel using a junior handsaw safely and accurately.	Safely use a saw and G-clamp with supervision.
Joining	With adult support, join simple materials using glue and tape.	Join fabrics using glue, masking tape and staples accurately.	Use a glue gun with close supervision (one to one).	Join materials, using the most appropriate method for the materials or purpose (e.g. screws, hinges etc)
Structures	Build simple structures using junk modelling materials.	Build simple structures and improve them by making them stronger, stiffer and more stable.	Prototype, build frames and create a shell or frame structure using diagonal struts to strengthen. Show increasing awareness of how to strengthen, stiffen and reinforce.	Select the most appropriate materials and frameworks for different structures, explaining what makes them strong (e.g. wood, card and corrugated plastic)
Vocabulary for cutting, joining and structures	Cello tape, glue stick, plasticine, ruler, straws	2-D, 3-D, materials, metal, plastic, PVA glue, wire, paperclips, cardboard	Junior hacksaw, g-clamp, wood, joiner, measure, dowel, safety goggles,	Saw, wood adhesive, accurate, sandpaper, marking out, bradawl, screws, hinges
Mechanisms		Use levers, sliders, pivot points in their products Use wheels and axles in their products	Use gears, pulleys and linkages in their products	Understand how cams work and use them in their products.
Vocabulary for Mechanisms		Levers, pivots, sliders, axles, wheels, chassis	Gears, pulleys, linkages	Cam shaft, snail cam, egg cam, eccentric cam, heart cam, movement, hand powered mechanism, linear motion, rotation, follower, slider, component
Electricity and computing			Build models incorporating circuits with switches, bulbs/buzzers.	Design products incorporating computing to program, monitor and control their products.
Vocabulary for electricity/ computing			Circuits, battery holder, battery, power, light bulb, light bulb holder, buzzer, wires, switches, open and closed circuits, complete loop	Microbits, algorithm, coding, debugging, digital device, input, output, sequencing

Steeple Claydon School Progression Criteria – (Design and Technology)

Food	Begin to mix. Begin to recognise that foods are healthy or unhealthy Begin to discuss where common foods come from with guidance.	Measure and weigh food items using non-standard measures (e.g. spoons and cups). Cut, peel, grate and chop a range of ingredients to make savoury dishes. Identify the main food groups including fruit and vegetables. Recognise the need for a variety of foods in a diet. Explain where the food they eat comes from (e.g. by referring to animals and plants).	Measure and weigh ingredients appropriately to prepare and begin to cook a range of savoury dishes (using toasters, blenders and microwaves with supervision). Describe what a balanced diet is. Make healthy eating choices and explain why. Identify food which comes from the UK and other countries in the world. Explain some of the processes that foods go through to preserve/make them more appealing.	Use appropriate tools and equipment, weighing and measuring with scales. Combine food ingredients appropriately (e.g. kneading and mixing). Prepare foods and use hobs to heat food, developing independence with this as appropriate. Evaluate meals and consider if they contribute towards a balanced diet. Plan how they can have a healthy/ affordable diet. Understand seasonality and explain how ingredients were grown, reared, caught and processed.
Vocabulary for cooking, nutrition and origins of food	Apron, chop, cut, fork, knife, mix, spoon	Amount, chopping board, grate/grater, skewers, ingredients, recipe, method, slice, mixing bowl, peel/peeler, saucepan, wooden spoon	Hygiene, millilitres/litres, blend, stir, toaster, toppings, spread, measure, liquid, flavours	Grams/kilograms, weigh, scales, spatula, temperature, sieve, kneed, baking sheets, hob, mash, dice, frying pan, allergies/intolerances, seasonality

Steeple Claydon School Progression Criteria – (Design and Technology)

Architects, designers and chefs			
	Year 1 and 2	**Year 3 and 4**	**Year 5 and 6**
Cooking	Mary Berry -fruit salads (MUCK, MESS AND MIXTURES)	Wolfgang Puck – cooking breakfasts (SCRUMDIDDLYUMPTIOUS)	Jamie Oliver- one pan wonders (CIVILISATIONS and HOLA MEXICO)
Structures	Gustave Eiffel & Zaha Hadid Norman Foster (Gherkin), Renzo Piano (Shard) –Towers/ Buildings (Towers, Turrets and Tunnels)	Joseph B. Strauss & Isambard Kingdom Brunel – railways, structures and bridges (FLOW)	Nora Stanton Blatch Barney -engineer (CODEBREAKER/ REVOLUTION)
Textiles	Orla Kiely	Lucienne Day Mary White	William Morris Terence Conran
Mechanisms/ Electricity	Archimedes - pulley systems (LAND AHOY)	Nikola Tesla -electrical systems (ROCKS & METALS) Thomas Edison -light bulbs (ROCKS & METALS)	Tommy Flowers colossus - machine ww2 (CODEBREAKERS) Charles Babbage -first programmable computer (CODEBREAKERS)
Other designers	Andy Warhol (SUPERHEROES- fabric masks)	John Alvin -Film posters (LIGHTS, CAMERA, ACTION) Paul Smith – fashion designer (WARRIORS AND RAIDERS)	Milton Glaser (GALLERY REBELS)