Eaton Primary Design and Technology Curriculum Overview

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DESIGNING						
Understanding contexts, users and purposes	Say what I am designing and who it is for. (e.g. myself or imaginary characters) Explain how my product will work.	Say what product I am designing, what it is for and who it is for. Explain how my product will work and why the user will like it. Use simple design criteria.	Suggest possible design criteria for a product. Use design criteria to guide my ideas. Explain the purpose of my product and how it will appeal to the user. Explain how particular parts of my product will work.	Suggest possible design criteria for a product. Use design criteria to guide my ideas. Explain the purpose of my product and how it will appeal to the user. Explain how particular parts of my product will work.	Develop design criteria for a product and identify what is most important. Identify the needs and preferences of my intended user. Identify the product features that will appeal to the intended user.	Develop and prioritise my own design criteria. Identify the needs, preferences and values of my intended user. Explain the features of my product that will be interesting and engaging for the intended user.
Generating, developing, modelling and communicating ideas	Generate my own ideas for a product. Share ideas by talking and drawing. Model ideas by making construction kits and exploring	Generate ideas by drawing on my own experiences. Develop and share ideas by talking and drawing. Model ideas by making construction kits,	Generate realistic ideas. Model and communicate ideas using prototypes, computer programs and annotated sketches.	Undertake research to help generate ideas (e.g. websites, questionnaires. Model ideas using prototypes, annotated sketches and cross-sectional drawings.	Undertake research to help generate and develop ideas. (e.g. secondary sources, interviews, surveys) Show originality in my thinking. Make design decisions, taking account of constraints	Use research to inform to develop innovative ideas. Make design decisions, taking account of constraints such as time, resources and cost. Select the most

	components and materials.	exploring components and materials, making templates and mock-ups. Use basic computer programs to help me develop and share my ideas. (e.g. paint)	Begin to make design decisions based on which resources are available.	Use computer programs to develop and share ideas. Make design decisions that take account of the availability of resources.	such as time and resources. Decide how to model and communicate ideas, include the use of computers.	appropriate way to model and communicate ideas.
MAKING						
Planning and preparation	Say what I am going to do next. Choose from a small selection of tools and equipment. Choose from a small selection of materials and components.	Plan what I am going to do first and next. Select from a range of tools and equipment. Select from a range of materials and components.	Explain what I am going to do first, next and last. Select tools and equipment suitable for the task, and explain my choices. Select materials and components suitable for the task, and explain my choices.	Order the main stages of making. Explain my choice of tools and equipment in relation to the skills used. Explain my choice of materials and components according to their functional properties.	Produce a plan as a guide to making. Produce lists of tools, equipment and materials, and explain my choice based on the skills and techniques I will use. Explain my choice of materials/components based on their functional properties and aesthetic qualities.	Formulate step-by-step plans as a guide to making. Produce appropriate lists of tools, equipment and materials, and justify my choices on the basis of function and aesthetics.
Practical skills and techniques	Follow simple rules for safety and hygiene.	Follow simple rules for safety and hygiene.	Follow rules for safety and hygiene.	Follow rules for safety and hygiene.	Follow rules for safety and hygiene. Use a wide range of	Follow rules for safety and hygiene.

	Use different materials and components. Cut and shape materials and components. Assemble and join materials and components. Use simple finishing techniques.	Use a range of materials and components. (e.g. construction kits, textiles, food ingredients and mechanical components) Measure, mark out, cut and shape materials and components. Assemble, join and combine materials and components. Use finishing techniques.	Use a wide range of materials and component. (e.g. textiles, construction kits, food ingredients, mechanical & electrical components) Measure, mark out, cut and shape materials and components with some accuracy. Assemble, join and combine materials and components with some accuracy. Apply a range of finishing techniques with some accuracy.	Use a wider range of materials and components. Measure, mark out, cut and shape materials and components with some accuracy. Assemble, join and combine materials and components with some accuracy. Apply a range of finishing techniques with some accuracy.	materials and components. Measure, mark out, cut and shape materials and components accurately. Assemble, join and combine materials and components accurately. Apply a range of finishing techniques accurately, including those from art and design. Explore ideas for solving practical problems.	Use a wide range of materials and components. Measure, mark out, cut and shape materials and components accurately. Assemble, join and combine materials and components accurately. Apply a range of finishing techniques accurately, including those from art and design. Demonstrate resourcefulness when tackling problems.
Technical knowledge	Explore how to make something stronger, stiffer and more stable. Begin to use technical	Explore the movement of simple mechanisms, such as levers, sliders, wheels and axles.	Use the correct technical vocabulary for the projects I am undertaking. Recognise how	Use the correct technical vocabulary for the projects I am undertaking.	Use the correct technical vocabulary. . Recognise that materials have both functional properties	Use the correct technical vocabulary. Recognise that mechanical and electrical

	vocabulary for the project I am undertaking.	Explain how freestanding structures can be made stronger, stiffer and more stable. Use the correct technical vocabulary for the projects I am undertaking.	mechanical systems create movement.(e.g. levers, linkages and pneumatic systems) Materials have both functional and aesthetic properties	Recognise that materials can be combined to create more useful characteristics. Recognise how mechanical systems create movement. (e.g. levers, linkages and pneumatic systems) Recognise how simple electrical circuits and components can be used to create functional products.	and aesthetic qualities. Recognise how mechanical systems create movement. (e.g. cams, pulleys and gears) Program a computer to monitor changes in the environment and control my products. Reinforce and strengthen a 3D framework.	systems have an input, process and output. Recognise how mechanical systems create movement. (e.g. cams, pulleys and gears) Recognise how more complex electrical circuits and components can be used and programmed to create functional products.
EVALUATING						
Own ideas and products	Say what I am making and whether it is going to plan. Say what the most difficult thing in making my product was.	Talk about my design ideas and what I am making. Say whether my product meets the design criteria.	Talk about the design criteria as I design and make my product. Evaluate how my completed product meets the design criteria.	Refer to my design criteria as I design and make my product. Consider the views of others to help me improve my work.	Evaluate the quality of the design and fitness for purpose of my product as I design and make. Evaluate my ideas and products against my original design specification.	Critically evaluate the quality of the design, manufacture and fitness for purpose of my product as I design and make. Critically evaluate my ideas and products against

	Say what I would do differently if I made my product again.	Suggest how my product could be improved.	Identify the strengths and areas for development in my product.	Use my design criteria to evaluate my completed Product. Identify the strengths and areas for development in my ideas and products.	Identify the strengths and areas for development in my ideas and products. Consider the views of the intended users, to improve my work.	my original design specification. Draw upon feedback from the intended user when identifying the strengths and areas for development in my ideas and products.
Existing products	Explore what materials existing products are made from. Say what I like and dislike about existing products.	Explore who existing products are for and what they are for. Explore how products work, how they are used and where they might be used. Identify what materials existing products are made from. Explain what I like and dislike about existing products.	Investigate how well existing products have been designed and made. Investigate how well existing products work. Explain what I like and dislike about existing products, giving clear reasons.	Investigate how well existing products have been designed and made. Investigate where and when an existing product was made and who designed it. Investigate why materials have been chosen for a product and how well they work. (e.g. recyclability) Investigate how well existing products meet	Analyse and evaluate how well products have been designed and made. Analyse and evaluate how well products achieve their purposes and meet user needs and wants. Investigate how much products cost to make and how sustainable they are.	Analyse and evaluate how well products achieve their purposes and meet user needs and wants. Investigate how much products cost to make and how sustainable they are. Investigate and analyse how innovative products are and what impact they have beyond their intended purpose.

				user needs and wants.		
Key events and individuals			Undertake research about people who have developed ground-breaking products. (e.g. inventors, designers, engineers, chefs and manufacturers)	Undertake research about people who have developed ground-breaking products.	Undertake research about people who have developed ground-breaking products. Explore the wider significance of ground-breaking products.	Undertake research about people who have developed ground-breaking products. Explore the wider significance of ground-breaking products.
COOKING AND NUTRITION						
Where food comes from	Explain that all food comes from plants or animals, and give examples.	Explain that food has to be farmed, grown elsewhere (e.g. home) or caught.	Recognise that food is grown, reared and caught.	Recognise that food ingredients can be fresh, pre-cooked and processed.	Identify different foods that are grown, reared and caught in the UK, Europe and the wider world.	Recognise that seasons may affect the food available. Explain how food is processed into ingredients that can be eaten or used in cooking.
Food preparation, cooking and nutrition	Prepare simple dishes safely and hygienically. Name and sort different foods into groups. Prepare food by cutting and peeling.	Prepare simple dishes safely and hygienically. Explain that a healthy diet includes food and drink from the food groups in The Eatwell Plate.	Prepare and cook a variety of dishes safely and hygienically. Use a range of techniques to prepare food. (e.g. peeling,	Prepare and cook a variety of dishes safely and hygienically. Use a range of techniques to prepare food.	Prepare and cook a variety of dishes safely and hygienically. Use a range of techniques to prepare food. Recognise different ways that a recipe can	Prepare and cook a variety of dishes safely and hygienically. Use a range of techniques to prepare food. Recognise that recipes can be

			chopping, slicing, grating, mixing, spreading, kneading and baking) Explain that a healthy diet is made up from a balance of different food and drink.	Recognise that to be active and healthy, food and drink are needed to provide energy for the body. Explore how a recipe changes by adding different Ingredients.	be adapted by adding or substituting ingredients.	adapted to change the appearance, taste, texture and aroma of a dish. Explain that food and drink contain different substances that are needed for health (e.g. nutrients, water and fibre)
		Explain why everyone should eat at least five portions of fruit and vegetables every day. Prepare food by cutting, peeling and grating.				