Year C Design and Technology Curriculum

Class structure: YR | Y1/2 | Y2/3 | Y4/5 | Y6

Purpose

This document brings together the Year C Design and Technology overview and end points for each class. The unit titles are drawn from the school Year C rolling programmes. Suggested learning and end points provide coherent progression through the mixed-age structure.

Year C whole-school overview

Class	Autumn	Spring	Summer
Y1/2/3	**Textiles** **Storytelling hand puppet, linked to Jim Henson** How can we design and make a storytelling hand puppet that is both functional and engaging for an audience?	**Structures** **Natural-material construction and simple joining** How can natural materials be used to design and build strong, stable structures?	**Food** **Preparing fruit and vegetables to make a smoothie, linked to Innocent Smoothies** How can we design and make a healthy fruit and vegetable smoothie that tastes good and meets a specific purpose?
Y4/5/6	**Textiles** **Fabric Christmas-tree decoration, linked to Gisella Graham** How can we design and make a fabric Christmas tree decoration that is attractive, functional and well-made?	**Product design** **Marble run, linked to Tom Karen** How can we design and build a marble run that successfully guides a marble from start to finish?	**Food** **Healthy lunchbox sandwich and bread making, linked to The Electric Bakery, Bude** How can we design and make a healthy lunchbox sandwich using bread and a range of nutritious ingredients?

Class overview: Y1/2/3

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
Autumn	**Textiles** Storytelling hand puppet How can we design and make a storytelling hand puppet that is both functional and engaging for an audience?	**Lesson 1: Who was Jim Henson and how do puppets tell stories?** **Y1** Jim Henson created famous puppets called Muppets. Puppets can be used to tell stories. Puppets have different features and characters. **Y2** Puppets are designed for a purpose and audience. Different puppet characters have different appearances. Storytelling can be enhanced through puppetry. **Y3** Designers create puppets that communicate character and emotion. Puppets can support entertainment and storytelling. Successful designs meet the needs of the audience. **Lesson 2: What makes a successful hand puppet?** **Y1** Puppets need openings for hands to move them. Materials can be joined together to create a puppet. Designers think about appearance and function. **Y2** Hand puppets must be easy to use. Different materials have different properties. Designs should be suitable for their purpose. **Y3** Functionality is as important as appearance. Designers evaluate existing products to generate ideas. Materials and construction methods affect performance. **Lesson 3: How can we design our puppet character?** **Y1** Designers draw ideas before making. Puppets can represent people, animals or imaginary characters. Colour and shape help create character. **Y2** Design sketches communicate ideas. Features should match the character's role in a story. Designers can improve ideas through discussion. **Y3** Design criteria help guide decision-making. Detailed sketches support the making process. Designers justify their design choices. **Lesson 4: How do we join and decorate textiles?** **Y1** Fabric can be joined using simple techniques. Textiles can be decorated with colours and shapes. Tools should be used safely. **Y2**	Y1 Know that puppets can be used to tell stories. Design a simple hand puppet. Use basic textile techniques to make a puppet. Talk about their finished product. Key vocabulary Puppet Fabric Character Design Join	Y2 Understand how puppets are designed for a purpose. Use simple sewing and joining techniques. Create a hand puppet based on a design. Evaluate how well their puppet works. Key vocabulary Template Stitch Decorate Function Audience	Y3 Understand how designers create puppets for different audiences. Apply textile skills accurately and independently. Design and make a functional storytelling puppet. Evaluate their product against design criteria. Key vocabulary Textile Design criteria Evaluate ConstructionFunctionality

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Running stitch can join fabric pieces together. Decorations can be added using fabric and simple embellishments. Accurate cutting improves outcomes. **Y3** Sewing techniques can strengthen joins. Different decoration methods achieve different effects. Precision improves the quality of the finished product. **Lesson 5: How can we make our hand puppet?** **Y1** Following a plan helps create a product. Materials can be assembled into a puppet. Changes can be made as work progresses. **Y2** Making requires measuring, cutting and joining. Tools and materials should be selected appropriately. Designers solve problems during construction. **Y3** Products are made through a sequence of steps. Design ideas may need refining during construction. Quality control helps ensure functionality. **Lesson 6: How can we evaluate our puppet and use it for storytelling?** **Y1** Puppets can be used to perform simple stories. Designers can talk about what they like about their product. Products can be improved. **Y2** Evaluation identifies strengths and improvements. Products should be tested against their purpose. Puppets can communicate character through movement and voice. **Y3** Evaluation considers design criteria and user needs. Testing helps improve future designs. Effective puppets engage an audience and support storytelling.			
Spring	**Structures** Natural material construction How can natural materials be used to design and build strong, stable structures?	**Lesson 1: What are natural materials and how are they used in structures?** **Y1** Natural materials come from plants, animals or the ground. Wood, sticks, leaves and stones are natural materials. People use natural materials to build and make things. **Y2** Different natural materials have different properties. Structures can be made from a variety of natural materials. Materials are chosen for specific purposes. **Y3** The properties of materials affect how structures perform. Designers select materials according to function. Natural materials have advantages and limitations.	Y1 Know that natural materials can be used to make structures. Understand that structures need to be strong and stable.	Y2 Understand that materials have different properties. Design and build a structure for a purpose. Test and improve their structure.	Y3 Understand that materials have different properties. Design and build a structure for a purpose. Test and improve their structure.

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Lesson 2: What makes a structure strong and stable? **Y1** Structures are built for a purpose. Strong structures can support weight. Wide bases can help structures stay upright. **Y2** Stable structures are less likely to fall over. Shape can affect strength and stability. Testing helps us understand whether a structure works. **Y3** Strength and stability depend on design and materials. Different structures use different methods to stay stable. Engineers test structures to improve designs. **Lesson 3: How can we investigate natural materials?** **Y1** Materials can feel different. Some materials bend and some are rigid. Testing helps us compare materials. **Y2** Materials have properties such as strength and flexibility. Observations help us choose suitable materials. Results can be recorded and compared. **Y3** Materials can be tested against design criteria. Evidence helps designers make decisions. Material properties affect performance. **Lesson 4: How can we design our natural material structure?** **Y1** Designers draw their ideas. A design helps us plan our work. Structures should be fit for purpose. **Y2** Design sketches show important features. Successful products are carefully planned. Designs can be improved before making. **Y3** Design criteria help guide decisions. Plans should consider materials and construction methods. Designers explain and justify choices. **Lesson 5: How can we build our structure?** **Y1** Materials can be joined together. Building requires care and accuracy. Problems can be solved while making. **Y2** Structures are built by following a sequence of steps. Materials and tools should be used appropriately.	Build a simple structure using natural materials. Talk about how well their structure works. Key vocabulary Structure Natural Strong Build Material	Explain why certain materials were chosen. Key vocabulary Stable Property Join Design Test	Explain why certain materials were chosen. Key vocabulary ConstructionFunction Design criteria Evaluate Strength

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Adaptations may improve the final product. **Y3** Construction requires accurate measuring, joining and assembling. Designers monitor progress against their plans. Testing during construction improves outcomes. **Lesson 6: How can we evaluate our structure?** **Y1** We can test whether a structure works. Designers can say what they like about their work. Products can be improved. **Y2** Evaluation helps identify strengths and weaknesses. Products can be compared against their purpose. Testing provides useful evidence. **Y3** Evaluation uses design criteria to judge success. Improvements can be suggested based on testing. Reflection supports future design work.			
Summer	**Food** Fruit and vegetable smoothie How can we design and make a healthy fruit and vegetable smoothie that tastes good and meets a specific purpose?	**Lesson 1: Why are fruits and vegetables important?** **Y1** Fruits and vegetables help us stay healthy. Different fruits and vegetables have different colours, tastes and textures. Healthy foods are important for growing bodies. **Y2** Fruits and vegetables provide nutrients that help keep us healthy. A balanced diet includes a variety of foods. Different fruits and vegetables can be eaten in different forms. **Y3** Fruits and vegetables contain vitamins, minerals and fibre. Healthy eating contributes to wellbeing. Food choices can affect our health. **Lesson 2: What fruits and vegetables could we use in a smoothie?** **Y1** Fruits and vegetables have different tastes. Some foods are sweet and some are savoury. People have different preferences. **Y2** Ingredients can be compared by taste, texture and appearance. Food products are designed for users. Evaluating existing products helps generate ideas. **Y3** Successful products meet a purpose and audience. Ingredients influence flavour, texture and appearance. Testing products helps inform design decisions. **Lesson 3: How can we prepare ingredients safely?** **Y1**	Y1 Know that fruits and vegetables are part of a healthy diet. Prepare ingredients safely. Make a simple fruit and vegetable smoothie. Talk about what they like about their product. Key vocabulary Fruit Vegetable Healthy Taste Smoothie	Y2 Understand that different ingredients affect flavour and texture. Design and make a smoothie for a purpose. Use food preparation skills safely. Evaluate their finished product. Key vocabulary Ingredient Texture Hygiene Prepare Recipe	Y3 Understand how ingredients contribute to nutrition and taste. Design a smoothie using design criteria. Apply food preparation skills accurately and safely. Evaluate their smoothie and suggest improvements. Key vocabulary Nutrition Design criteria Evaluate Flavour Product

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Food preparation requires good hygiene. Hands should be washed before handling food. Simple tools can be used safely. **Y2** Ingredients can be prepared using a range of basic techniques. Safe handling helps prevent contamination. Following instructions supports successful outcomes. **Y3** Food safety is an essential part of product development. Preparation techniques affect the final product. Accuracy improves consistency and quality. **Lesson 4: How can we design our smoothie?** **Y1** Designers plan before making. Ingredients can be selected for a reason. A drawing can help communicate ideas. **Y2** Design criteria help guide decisions. Products should meet a specific purpose. Designs can be improved through discussion and feedback. **Y3** Designers consider flavour, appearance and nutrition. Design decisions should be justified. Planning supports an effective outcome. **Lesson 5: How can we make our smoothie?** **Y1** Ingredients can be combined to create a new food product. Following a plan helps achieve success. Tasting helps us know if a product works. **Y2** Ingredients should be measured and prepared carefully. Adjustments may improve the final product. Making involves following a sequence of steps. **Y3** Product development may require refinement. Careful preparation improves quality. Products should meet their intended purpose. **Lesson 6: How can we evaluate our smoothie?** **Y1** We can talk about what we like and dislike. Testing helps us improve products. Products can be changed to make them better. **Y2** Evaluation identifies strengths and areas for improvement. Feedback helps designers improve products. Products should be assessed against their purpose. **Y3** Evaluation should refer to design criteria.			

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Designers use evidence to suggest improvements. Successful products meet users' needs.			

Class overview: Y4/5/6

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
Autumn	**Textiles** Fabric Christmas-tree decoration How can we design and make a fabric Christmas tree decoration that is attractive, functional and well-made?	**Lesson 1: What makes a successful Christmas tree decoration?** **Y4** Christmas tree decorations are designed for a purpose. Decorations can have different shapes, colours and materials. Designers evaluate products to generate ideas. **Y5** Decorations should be attractive and suitable for their intended use. Materials are selected for specific reasons. Successful products balance appearance and function. **Y6** Designers consider purpose, audience and aesthetic appeal. Existing products can be analysed to identify strengths and weaknesses. Evaluation helps improve future designs. **Lesson 2: What textile skills do we need?** **Y4** Fabric is a textile material. Fabrics can be cut and joined together. Sewing requires accuracy and care. **Y5** Different stitches achieve different purposes. Seam allowances help fabric pieces fit together. Accurate measuring improves outcomes. **Y6** Sewing techniques influence strength and appearance. Precision is important when constructing textile products. Technical skills affect product quality. **Lesson 3: How can we design our decoration?** **Y4** Designers sketch ideas before making. Decorations can include festive shapes and colours. Labels can communicate important design features. **Y5** Design criteria help guide creative decisions. Sketches should show materials, shape and decoration ideas. Designers can adapt ideas based on feedback. **Y6** Detailed plans support successful construction. Design decisions should be justified. Products should balance creativity and functionality. **Lesson 4: How can we decorate fabric effectively?** **Y4** Fabric can be decorated with shapes, patterns and colour. Decorative features improve appearance. Designers make choices about colour combinations. **Y5**	Y4 Understand that textile products are designed for a purpose. Use simple sewing techniques to construct a decoration. Add decorative features to fabric. Evaluate their finished product. Key vocabulary Fabric Decoration Stitch Template Design	Y5 Understand how design criteria guide product development Apply sewing and decorating techniques with increasing accuracy. Create a Christmas decoration suitable for its purpose. Evaluate their work against the original design. Key vocabulary Seam Appliqué Embellishment Construct Design criteria	Y6 Apply a range of textile techniques accurately. Use design criteria to guide planning and construction. Create a high-quality textile product. Evaluate and refine products using evidence and reflection. Key vocabulary Textile Precision Functionality Evaluate Aesthetic

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Appliqué and embellishments can be used to add detail. Decorative techniques should suit the design. Repeated patterns can enhance visual appeal. **Y6** Decorative features should complement the intended purpose. Designers consider balance, symmetry and composition. Creative choices affect the overall impact of a product. **Lesson 5: How can we make our Christmas tree decoration?** **Y4** Fabric pieces can be joined to create a finished product. Following a plan supports success. Problems can be solved during construction. **Y5** Construction involves measuring, cutting, sewing and assembling. Tools and materials should be used safely and appropriately. Products may require adjustments during making. **Y6** Construction should follow a logical sequence. Accurate assembly improves functionality and appearance. Testing throughout the process helps maintain quality. **Lesson 6: How can we evaluate our finished decoration?** **Y4** Designers can describe what they like about their product. Decorations should be fit for purpose. Products can always be improved. **Y5** Evaluation identifies strengths and possible improvements. Products should be judged against design criteria. Feedback helps improve future designs. **Y6** Evaluation should consider appearance, construction and functionality. Evidence from testing informs improvements. Reflection supports future design work.			
Spring	**Product design** Marble run How can we design and build a marble run that successfully guides a marble from start to finish?	**Lesson 1: What makes a successful marble run?** **Y4** Products are designed for a purpose. A marble run guides a marble along a planned route. Successful designs allow the marble to move smoothly. **Y5** Product designers consider function and user experience. Different marble runs use different features and layouts. Existing products can be evaluated to generate ideas. **Y6** Successful products balance function, efficiency and creativity. Analysing existing products helps identify effective design features. Evaluation supports design improvement. **Lesson 2: How do forces affect a marble run?**	Y4 Understand that products are designed for a purpose. Design and build a simple marble run. Test whether their marble run works effectively.	Y5 Understand how forces affect movement within a marble run. Use design criteria to create a marble run. Test and refine their design. Evaluate how well their product performs.	Y6 Apply understanding of forces and construction techniques. Design and build an effective marble run using clear design criteria. Test, evaluate and refine their product.

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Y4 Gravity causes objects to move downhill. Slopes can make marbles move faster or slower. Testing helps us understand what works. **Y5** Friction can affect the movement of a marble. The angle of a ramp influences speed. Designers use testing to improve performance. **Y6** Forces interact to affect movement and control. Designers manipulate gradients and surfaces to achieve desired outcomes. Scientific understanding supports effective product design. **Lesson 3: How can we design our marble run?** **Y4** Designers create sketches before making. Designs should include a start and finish point. Planning helps organise ideas. **Y5** Design criteria help guide decision-making. Sketches should show key features and routes. Designers can improve ideas through feedback and testing. **Y6** Detailed designs support successful construction. Design decisions should be justified against criteria. Designers consider efficiency, reliability and user appeal. **Lesson 4: How can we construct and test sections of a marble run?** **Y4** Materials can be joined to create structures. Testing helps identify problems. Improvements can be made during construction. **Y5** Prototypes help designers trial ideas. Different materials have different strengths. Testing leads to refinement. **Y6** Prototyping is used to evaluate design effectiveness. Construction methods affect performance. Iterative design improves products. **Lesson 5: How can we build our final marble run?** **Y4** Construction follows a sequence of steps. Careful assembly improves performance. Problems can be solved during making. **Y5** Accurate measuring and joining improve outcomes. Designers adapt plans if necessary. Functionality should remain the priority. **Y6**	Suggest ways to improve their design. Key vocabulary Marble run Ramp Slide Build Test	Key vocabulary Force Friction Prototype Measure Design criteria	Justify design decisions using evidence. Key vocabulary Gradient Functionality Refine Efficiency Evaluate

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Construction requires precision and quality control. Designers monitor progress against design criteria. Adjustments should be evidence-based. **Lesson 6: How can we evaluate and improve our marble run?** **Y4** Products can be tested to see if they work. Designers can explain what went well. Improvements can be suggested. **Y5** Evaluation compares outcomes against design criteria. Testing provides evidence of success. Feedback helps improve future work. **Y6** Evaluation considers functionality, efficiency and user experience. Evidence should be used to justify improvements. Reflection supports future design projects.			
Summer	**Food** Bread and healthy lunchbox sandwich How can we design and make a healthy lunchbox sandwich using bread and a range of nutritious ingredients?	**Lesson 1: What makes a healthy lunchbox?** **Y4** A healthy lunchbox contains a variety of foods. Different foods provide different nutrients. Food helps our bodies grow and stay healthy. **Y5** A balanced diet includes foods from different food groups. Healthy lunches provide energy throughout the day. Food choices can affect health and wellbeing. **Y6** Nutrients have different functions within the body. Healthy eating supports physical and mental wellbeing. Food products should be designed with nutrition in mind. **Lesson 2: What breads and fillings could we use?** **Y4** Bread comes in different types. Sandwiches can contain a range of healthy fillings. Ingredients have different tastes and textures. **Y5** Ingredients can be compared according to flavour, texture and nutritional value. Existing products can be evaluated to generate ideas. Consumer preferences influence product design. **Y6** Ingredients should be selected to meet the needs of the user. Nutritional content varies between foods. Product analysis helps identify successful features. **Lesson 3: How can we prepare food safely?** **Y4** Good hygiene is important when preparing food. Hands, surfaces and equipment should be kept clean. Basic food preparation tools can be used safely.	Y4 Understand the features of a healthy lunchbox. Prepare food safely and hygienically. Design and make a healthy sandwich. Evaluate their finished product. Key vocabulary Bread Filling Healthy Sandwich Hygiene	Y5 Understand how ingredients contribute to nutrition and taste. Use design criteria to plan a sandwich. Apply food preparation skills safely. Evaluate how successfully their sandwich meets its purpose. Key vocabulary Ingredient Nutrition Balanced diet Prepare Design criteria	Y6 Understand how nutritional needs influence food choices. Design a healthy sandwich for a target user. Apply food preparation skills accurately and safely. Evaluate their product using evidence and design criteria. Key vocabulary Nutrient Consumer Evaluate Product development Function

Term	Unit	Key Learning and Substantiative Knowledge	END POINTS AND KEY VOCABULARY		
		Y5 Safe food handling reduces the risk of contamination. Preparation techniques affect the quality of a product. Following instructions helps achieve consistent results. **Y6** Food safety is an important part of product development. Accurate preparation improves presentation and quality. Hygiene procedures protect consumers. **Lesson 4: How can we design our healthy lunchbox sandwich?** **Y4** Designers plan before making. Ingredients should be chosen for a reason. Design drawings help communicate ideas. **Y5** Design criteria support decision-making. Products should meet a particular purpose. Designers consider appearance, nutrition and taste. **Y6** Design decisions should be justified using evidence. Products should meet user needs and design criteria. Planning helps improve outcomes. **Lesson 5: How can we make our sandwich?** **Y4** Ingredients can be combined to make a healthy meal. Following a plan helps achieve success. Care is needed when preparing and assembling food. **Y5** Measuring and preparing ingredients accurately improves quality. Products may be refined during the making process. Construction follows a logical sequence. **Y6** Skilled preparation contributes to a successful product. Designers monitor quality throughout the process. Products should be evaluated against their intended purpose. **Lesson 6: How can we evaluate our sandwich?** **Y4** We can describe what we like about our sandwich. Products can be tested and improved. Healthy choices should be considered. **Y5** Evaluation identifies strengths and areas for improvement. Feedback can help improve products. Products should be compared against their purpose. **Y6** Evaluation should refer to design criteria and user needs. Evidence can be used to justify improvements. Reflection supports future product development.			

Progression in disciplinary knowledge

Area	Y1	Y2	Y3	Y4	Y5	Y6
Designing - understanding context, users and purposes	Use simple design criteria; state what their products are, who and what they are for and how they will work.	Use simple design criteria; state what their products are, who and what they are for and how they will work.	Gather information about the user needs; develop their own design criteria; describe the user, purpose and design features of their products and explain how they will work.	Gather information about the user needs; develop their own design criteria; describe the user, purpose and design features of their products and explain how they will work.	Carry out research; develop simple design specification; describes the user, purpose and design of their products and explain how they will work.	Carry out research; develop simple design specification; describes the user, purpose and design of their products and explain how they will work.
Designing-Generating, developing, modelling and communicating ideas	Generate ideas using their own experiences and existing products; use talk, drawing, templates, mock-ups and, where appropriate, computers.	Generate ideas using their own experiences and existing products; use talk, drawing, templates, mock-ups and, where appropriate, computers.	Generate realistic ideas based on user needs; use a range of drawing skills, discussion, prototypes pattern pieces and CAD.	Generate realistic ideas based on user needs; use a range of drawing skills, discussion, prototypes pattern pieces and CAD.	Generates innovative ideas drawing on research; uses a range of drawing skills, discussion, prototypes, pattern pieces and CAD.	Generates innovative ideas drawing on research; uses a range of drawing skills, discussion, prototypes, pattern pieces and CAD
Making-Planning	Plan by suggesting what to do next; select from a range of tools, equipment, materials and components.	Plan by suggesting what to do next; select from a range of tools, equipment, materials and components.	Order the main stages of making select suitable tools, equipment, materials and components and explain their choices.	Order the main stages of making select suitable tools, equipment, materials and components and explain their choices.	Formulate a list of resources needed and step by step plans. Select suitable tools, equipment, materials and components and explain their choices.	Formulate a list of resources needed and step by step plans. Select suitable tools, equipment, materials and components and explain their choices.
Making- Practical skills and techniques	Follow procedures for safety and hygiene; measure, mark out, cut, shape, assemble, join, combine and finish a range of materials and components.	Follow procedures for safety and hygiene; measure, mark out, cut, shape, assemble, join, combine and finish a range of materials and components.	Follow procedures for safety and hygiene; use a wider range of materials and components. Measure, mark, cut out, shape, assemble, join, combine and finish with some accuracy.	Follow procedures for safety and hygiene; use a wider range of materials and components Measure, mark, cut out, shape, assemble, join, combine and finish with some accuracy.	Follow procedures for safety and hygiene. Use a wide range of materials and components. Measure, mark out , shape, assemble, join combine and finish with accuracy.	Follow procedures for safety and hygiene. Use a wide range of materials and components. Measure, mark out , shape, assemble, join combine and finish with accuracy.
Evaluating & Improving	Make simple judgements about their products and ideas against design criteria.	Make simple judgements about their products and ideas against design criteria.	evaluate their ideas and products against their design criteria.	evaluate their ideas and products against their design criteria.	Identify strengths and areas to develop in their ideas and products against their own design specification. Consider the views of others to make improvements.	Identify strengths and areas to develop in their ideas and products against their own design specification. Consider the views of others to make improvements.

Evaluating-existing products	Explore who and what products are for, how they work and are used, what materials they are made from and what they like and dislike about them.	Explore who and what products are for, how they work and are used, what materials they are made from and what they like and dislike about them.	Investigate how well products have been designed and made, whether they are fit for purpose and meet user needs; why materials have been chosen, the methods of construction used and how well they work.	Investigate how well products have been designed and made, whether they are fit for purpose and meet user needs; why materials have been chosen, the methods of construction used and how well they work.	Investigate how well products have been designed and made, whether they are fit for purpose and meet user needs: why materials have been chosen, the methods of construction used, how well they work and how innovative and sustainable they are.	Investigate how well products have been designed and made, whether they are fit for purpose and meet user needs: why materials have been chosen, the methods of construction used, how well they work and how innovative and sustainable they are.
Key events and individuals			know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	Know about inventors, designers, chefs and manufacturers who have developed ground breaking products.	Know about inventors, designers, chefs and manufacturers who have developed ground breaking products.
Technical knowledge – making products work	know about the simple working characteristics of materials and components, the movement of simple mechanisms, how freestanding structures can be made stronger, stiffer and more stable; use the correct technical vocabulary.	know about the simple working characteristics of materials and components, the movement of simple mechanisms, how freestanding structures can be made stronger, stiffer and more stable; use the correct technical vocabulary.	know that materials have functional and aesthetic qualities; that systems have an input, process and output; how to program a computer to control their products; how to make strong, stiff shell structures; use the correct technical vocabulary.	know that materials have functional and aesthetic qualities; that systems have an input, process and output; how to program a computer to control their products; how to make strong, stiff shell structures; use the correct technical vocabulary.	Knows that materials have functional and aesthetic qualities: that systems have an input, process and an output: how to program a computer to control and monitor their products: how to reinforce and strengthen a framework and use the correct technical vocabulary.	Knows that materials have functional and aesthetic qualities: that systems have an input, process and an output: how to program a computer to control and monitor their products: how to reinforce and strengthen a framework and use the correct technical vocabulary.
Cooking and nutrition- where food is from	Know that food comes from plants or animals and that it is farmed or caught.	Know that food comes from plants or animals and that it is farmed or caught.	Know that food is grown, reared and caught in the UK, Europe and the wider world.	Know that food is grown, reared and caught in the UK, Europe and the wider world.	Know that food is grown, reared and caught in the UK, Europe and the wider world and that seasons may affect the food that is available; how food is processed into ingredients.	Know that food is grown, reared and caught in the UK, Europe and the wider world and that seasons may affect the food that is available; how food is processed into ingredients.
Cooking and Nutrition- Food preparation, cooking and nutrition.	Know how to prepare simple dishes safely and hygienically without a heat source, name and sort foods into groups; know that everyone should eat at least five portions of fruit and vegetables a day.	Know how to prepare simple dishes safely and hygienically without a heat source, name and sort foods into groups; know that everyone should eat at least five portions of fruit and vegetables a day.	know how to prepare a variety of dishes safely and hygienically; that a healthy diet is made from a variety and balance of different food and drink; that food and drink are needed to provide energy for the body.	know how to prepare a variety of dishes safely and hygienically; that a healthy diet is made from a variety and balance of different food and drink; that food and drink are needed to provide energy for the body.	Know how to cook a variety of dishes safely and hygienically using a heat source and that different foods contain nutrients, water and fibre that are needed for health.	Know how to cook a variety of dishes safely and hygienically using a heat source and that different foods contain nutrients, water and fibre that are needed for health.