Unit	Lesson name	Lesson No.	Learning objective	Expected Standard (EXS)	Greater depth (GDS)
Food Celebrating culture and seasonality Project - To make a pizza	Existing Products	1	I can research, dismantle, explore and evaluate existing products.	I can research a range of existing products and identify their purpose and intended user. I can dismantle products carefully and explain how key parts work. I can evaluate products by identifying strengths and weaknesses linked to function, materials, and design. I can use findings from my research to inform my own design ideas.	I can compare similar products and explain why different design choices have been made. I can analyse how materials, components, and construction methods affect performance and durability. I can justify which features are most effective and explain how these influence my own design decisions. I can use technical vocabulary accurately when discussing how products work.
	Practicing Skills	2	To practise and develop the skills needed before making the final product. To develop an understanding of the required skills through practice prior to making the product. To practise key skills in order to confidently apply them when making the final product. To develop the skills and understanding needed to successfully make the product.	I can practise and develop key skills needed to make my final product. I can explain why practising skills is important before making a final product. I can improve my work by responding to feedback and identifying areas to develop. I can apply practised skills confidently and accurately when making my final product.	I can independently identify which skills need practising and plan how to improve them. I can refine techniques through repeated practice to improve accuracy, quality, and consistency. I can explain how skill development impacts the quality of the final product. I can adapt my approach when a technique is unsuccessful and explain the changes made.

	Design	3	To design purposeful, functional and appealing products for themselves and other users based on given design criteria. To generate and develop design ideas through discussion, drawing and the use of templates.	I can design a product that is purposeful, functional, and appealing to a specific user. I can generate, develop, and communicate ideas using annotated sketches, drawings, and templates. I can design a product that meets given design criteria. I can explain how my design choices meet the needs of the user.	I can produce detailed design ideas that show careful consideration of user needs and purpose. I can modify and improve designs based on discussion, feedback, and evaluation of earlier ideas. I can clearly justify design choices, including materials, shape, and construction methods. I can show how my final design meets all aspects of the design criteria in a thoughtful way.
	Pizza Making	4	To select and safely use a range of tools and equipment to prepare ingredients for making a pizza. To use appropriate tools to cut, shape and assemble ingredients when making a pizza. To choose and use kitchen tools correctly to perform practical food-preparation tasks.	I can select and safely use a range of kitchen tools and equipment. I can prepare ingredients accurately using appropriate techniques (cutting, shaping, assembling). I can follow food hygiene and safety rules when preparing food. I can work independently and responsibly when making a pizza.	I can select the most appropriate tools and techniques to achieve a specific outcome. I can prepare ingredients with precision and consistency to improve the quality of the final product. I can demonstrate excellent awareness of food safety and hygiene without adult support. I can work efficiently and safely while maintaining a high standard of finish.
	Pizza Making	5	To select and safely use a range of tools and equipment to prepare ingredients for making a pizza. To use appropriate tools to cut, shape and assemble ingredients when making a pizza. To choose and use kitchen tools correctly to perform practical food-preparation tasks.	I can confidently choose and use appropriate tools and equipment without reminders. I can prepare and assemble ingredients accurately to produce a finished pizza. I can demonstrate safe, hygienic working practices throughout the process. I can manage my time and workspace effectively during food preparation.	I can adapt ingredients, techniques, or methods to improve flavour, texture, or appearance. I can solve problems independently during food preparation and explain the decisions made. I can manage multiple preparation tasks effectively and maintain control of tools at all times. I can reflect on how preparation techniques affect the final outcome.
	Evaluating	6	To evaluate our pizza and explain what worked well and what could be improved	I can evaluate my pizza against the original design criteria. I can explain what worked well and why. I can identify areas for improvement and suggest clear ways the product could be improved. I can use feedback from others to support my evaluation.	I can give a balanced and detailed evaluation that links outcomes directly to the design criteria. I can explain how specific choices impacted the success of the final product. I can suggest realistic, well-justified improvements that could be implemented in future designs. I can consider the views of others and weigh these against my own judgement.
Electronic (Steady Hand Game)	Developing through play	1	To research and analyse a range of children's toys.	I can research images and information about existing children's toys. I can analyse a selection of existing children's toys. I can apply my knowledge of form and function.	I can compare a range of children's toys and explain how design choices affect how they are used. I can analyse how different materials and components influence durability, safety, and function. I can explain how electrical components are used in toys to create different effects. I can use my research to suggest innovative ideas for my own game.

	Game plan	2	To design a steady hand game.	I can identify and name the components in a steady hand game. I can decide on clear design criteria for my game. I can design a game and draw it from three different perspectives. I can create a design that reflects the design criteria.	I can justify my design choices in detail, linking them clearly to user needs and design criteria. I can refine my design based on feedback and explain the improvements made. I can consider how the electrical circuit will fit within my design and plan for this accurately. I can produce a design that is both functional and visually appealing, with clear annotations.
	Base building	3	To construct a stable base.	I can accurately cut and assemble a net. I can decorate the base and ensure a high-quality finish. I can ensure that the sides of the base are aligned when glued. I can use tabs to secure the pieces of the net in place.	I can ensure my base is structurally strong by selecting appropriate joining and reinforcement techniques. I can make precise measurements and cuts to ensure accuracy and a professional finish. I can identify and correct errors during construction independently. I can explain how the quality of the base will impact the effectiveness of the final product.
	Electronics and assembly	4	To assemble electronics and complete their electronic game.	I can make and test a circuit. I can incorporate a circuit into a base. I can name electrical components.	I can confidently build, test, and troubleshoot a circuit independently. I can explain how each component (e.g. buzzer, wire, switch) contributes to the circuit. I can adapt my circuit if it does not work and explain the changes made. I can integrate the electrical components neatly and effectively into my product design.
Microbits/digital (CAD)	Creating a design brief and measuring, marking and cutting materials.	1	To create design criteria to meet a user's needs.	I can pick out the key points from the design brief to create design criteria. I can suggest achievable design criteria. I can measure card and wood accurately. I can cut components using appropriate tools.	I can develop detailed and realistic design criteria that fully reflect the user's needs. I can select the most appropriate materials based on their properties and explain my choices. I can measure and cut materials with a high degree of precision and consistency. I can evaluate how accuracy in measuring and cutting affects the final product quality.
	To use an exploded diagram to assemble a frame.	2	To use an exploded diagram to assemble a frame.	I can discuss why diagrams are important in the design process. I can identify how an exploded diagram matches my components. I can assemble a frame and join it together. I can create a design idea using design criteria as a guide.	I can explain how exploded diagrams support accurate construction and reduce errors. I can use an exploded diagram independently to assemble complex components. I can adapt my construction if parts do not fit and explain why changes are needed. I can ensure my frame is strong, stable, and accurately assembled.

	Experimenting with cams	3	To explore a mechanism to inform a design decision.	I can describe the way a follower moves for a specific cam. I can create cams by cutting and glueing. I can test cams using my automata frame. I can decide which cams to use based on my design ideas and design criteria.	I can compare different cam types and explain how their shapes affect movement. I can design and test multiple cam mechanisms and evaluate their effectiveness. I can select the most suitable cam based on my design criteria and justify my choice. I can refine my cam design to improve the smoothness and consistency of movement.
	Designing and fixing the housing frame to finish an automata.	4	To evaluate a completed design.	I can measure and cut panels to conceal a mechanism. I can finish and decorate my automata so it meets the design brief. I can describe the successes of my finished product. I can reflect on how my product meets the design brief.	I can produce a high-quality finished product that is accurate, neat, and well-constructed. I can evaluate my product in detail against all design criteria, explaining successes and limitations. I can suggest realistic and specific improvements based on testing and feedback. I can explain how the mechanism, structure, and design work together effectively.

Project focus

Brief and existing

Practising skills

Design

Select tools and make

Evaluate

Skills based LO

Knowledge based LO

National curriculum links
Prior learning • Have knowledge and understanding about food hygiene, nutrition, healthy eating and a varied diet. • Be able to use appropriate equipment and utensils, and apply a range of techniques for measuring out, preparing and combining ingredients. **Designing** • Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. • Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. • Use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. **Making** • Write a step-by-step recipe, including a list of ingredients, equipment and utensils • Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • Make, decorate and present the food product appropriately for the intended user and purpose. **Evaluating** • Carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams. • Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. • Understand how key chefs have influenced eating habits to promote varied and healthy diets. **Technical knowledge and understanding** • Know how to use utensils and equipment including heat sources to prepare and cook food. • Understand about seasonality in relation to food products and the source of different food products. • Know and use relevant technical and sensory vocabulary.

Design Model ideas through prototypes. **Make** Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately. **Evaluate** Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Technical knowledge Pupils should be taught to: Understand and use electronics in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].

Make Pupils should be taught to: 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, textiles and ingredients, according to their functional properties and aesthetic qualities. **Evaluate** Pupils should be taught to: Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.