

East Preston Infant School

Design Technology Progression Overview



Intent:

At East Preston Infant School, we aim for children to develop skills in designing, making and evaluating products for a given purpose, working both collectively as a team and on individual projects and developing the ability to solve problems which are encountered during the process.

Implementation:

Design and Technology is taught through both specific skills-based lessons and cross curricular opportunities, where children are inspired by exciting and engaging topics and themes and are introduced to real-world designers, including chefs, weavers and engineers. Through a variety of creative and practical activities, pupils are taught the process of designing, making, evaluating, improving and developing technical knowledge to create their own product using textiles, constructions, mechanisms and structures.

Our Cooking Corner provides a dedicated space for children to develop an understanding of cooking techniques, knowledge of the journey of our foods from field to fork and the principles of healthy eating. Through our Forest School environment children have the opportunity to extend their skills using a wide range of materials and real tools to further develop their creativity and design skills. Our annual STEAM (Science, Technology, Engineering, Arts and Maths) week provides opportunities for our pupils to further embed design technology skills and knowledge in specific mini-tasks.

Intended Impact:

- Through Design Technology, the children will learn:
- essential life skills of team work, logical thinking, problem solving and cooperation
 - to select from and use a range of tools and equipment to perform practical tasks, cutting, shaping, joining and finishing
 - to evaluate their products and ideas against criteria
 - to apply their knowledge and skills in real world contexts

	Design	Make	Evaluate	Technical Knowledge	Food & Nutrition
Reception ELG (EAD) Emerging ELG	Show curiosity about objects, events and people. Find ways to solve problems. Make decisions about how to approach a task, solve a problem and reach a goal.	Engage in open-ended activity. Test their ideas and find new ways to do things. Create simple representations of events, people and objects. <i>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</i> <i>Use a range of small tools, including scissors, paintbrushes and cutlery.</i>	Checking how well their activities are going. Changing strategy as needed. Stating how well the approach worked. <i>Share their creations, explaining the process they have used.</i>	Question why things happen. Use senses to explore the world around them. <i>Understand some important processes and changes in the natural world around them, including changing states of matter.</i>	Understand what foods are healthy. <i>Manage their own basic hygiene and personal needs, including the importance of healthy food choices.</i>
Reception Key Vocabulary	cut, measure, stick, glue, join, draw, design, make, fix, fold, attach, corners, tape, rubber bands, scissors, same, different, slice, chop, mix, stir, whisk, measure, pour, bake, cook, ingredients, needle, thread, pinch, sew, material, fabric, germs, washing, soap,				

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Year One	Design appealing products for a particular user based on simple design criteria Generate initial ideas and design criteria through own experiences Develop and communicate these ideas through talk and drawings	Select and use simple utensils, tools and equipment to perform a job Select from a range of ingredients and materials according to their characteristics to create a chosen product Select materials, components and construction kits to build and create their products	Taste, explore and evaluate a range of products to determine the intended user's preferences for the product Evaluate their ideas throughout and finished products against design criteria, including intended user and purpose	Begin to know how to make freestanding structures stronger, stiffer and more stable Begin to know and use technical vocabulary relevant to the project Understand how to join fabrics Understand that different mechanisms produce different types of movement.	Begin to understand where a range of fruit and vegetables come from Begin to use basic principles of a healthy and varied diet to prepare dishes Know and use technical and sensory vocabulary relevant to the project
Year One Key Vocabulary	Build on Reception vocabulary planning, investigating, design, evaluate, user, purpose, ideas, criteria, product, colour, decorate, create, print, template, label, structure, strong, stable, stiff, flexible, pivot, levers, pulley, fasten, observe, similarities, differences, moving, non-moving, grate, peel, chef, raw, cooked, heat, healthy, unhealthy, binca				
Year Two	Generate ideas based on simple design criteria and their own experiences, explaining what they could make Develop, model and communicate their ideas through talking, prototypes and drawings	Select and use tools, equipment, skills and techniques to perform practical tasks, explaining their choices Use simple finishing techniques suitable for the products they are creating	Explore a range of existing products related to their design criteria Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria	Know how to make freestanding structures stronger, stiffer and more stable Know and use technical vocabulary relevant to the project Explore and use sliders Know how to join materials in order to weave	Understand where a range of fruit and vegetables come from Understand and use basic principles of a healthy and varied diet to prepare dishes Know and use technical and sensory vocabulary relevant to the main food groups
Year Two Key Vocabulary	Build on Year 1 vocabulary prototype, assemble, function, model, mechanism, sliders, sturdy, three-dimensional, carbohydrates, protein, vegetables, dairy, fruits, fats, sugars, weave, designer,				
National Curriculum					
<p>The National Curriculum for D.T. aims to ensure that all pupils are taught to:</p> <ul style="list-style-type: none"> • Design <ul style="list-style-type: none"> ○ 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 • Make <ul style="list-style-type: none"> ○ select from and use a range of tools and equipment to perform practical tasks ○ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics • Evaluate <ul style="list-style-type: none"> ○ explore and evaluate a range of existing products ○ evaluate their ideas and products against design criteria 					

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- Technical knowledge
 - build structures, exploring how they can be made stronger, stiffer and more stable
 - explore and use mechanisms in their products
- Cooking and nutrition
 - use the basic principles of a healthy and varied diet to prepare dishes
 - understand where food comes from

Assessment

Teachers observe children's design and technological knowledge and skills throughout lessons and make on-going assessments against the learning intention.