



# Design and Technology at Wren's Nest Primary School

As the National Curriculum for Design and Technology states,

*'Design and Technology is an inspiring, rigorous and practical subject, using creativity and imagination'*

At Wren's Nest, we use 'Projects on a Page', a programme of study planned by the Design and Technology Association. The carefully planned projects help develop children's skills through collaborative work and problem-solving. They allow children to acquire and apply knowledge and understanding of materials and components. The projects develop children's practical abilities and creates opportunities to design, construct and evaluate using a range of materials, drawing on a variety of skills.



## Big Ideas

- ✓ Design
  - Research
  - Develop
  - Communicate
- ✓ Make
  - Tools
  - Equipment
  - Materials
- ✓ Evaluate
  - Investigate
  - Analyse
  - Understand
- ✓ Technical knowledge
  - Apply
- ✓ Cooking & Nutrition



## Content and Sequencing

- ✓ **EYFS** – Children develop a range of design and technology skills through creative projects linked to stories and celebrations. They explore food preparation by designing and making a Diwali dessert, build with purpose by creating a scarecrow inspired by 'The Scarecrow's Wedding', and experiment with light and materials when making shadow puppets for 'The Gruffalo's Child'. Children use natural resources to construct and evaluate a bird's nest linked to the life cycle of a hen, and practise joining, cutting, and decorating techniques when designing a crown for 'Zog and the Flying Doctors'. They also explore movement and simple mechanisms while designing a dragon with moving parts from 'Zog'. These activities help children develop skills such as planning, selecting materials, joining techniques, and evaluating their work.
- ✓ **Year 1** – Children take part in three exciting projects that help develop a range of key skills. They begin by designing a moving picture for children using sliders and levers, where they learn to design, make, evaluate, and apply technical knowledge. Next, they design and build a free-standing structure by creating a new house for 'Thumbelina', continuing to use the core skills of designing, making, evaluating, and technical knowledge. Finally, they design, make, and evaluate a healthy fruit salad for children and adults, learning about cooking and nutrition as part of their DT journey.
- ✓ **Year 2** – Children build on their skills through a variety of creative projects. They start by designing, making, and evaluating a cushion, focusing on design, making, evaluating, and technical knowledge. They then explore food presentation by designing, making, and evaluating a 'food art' tree, which also introduces them to cooking and nutrition. Finally, they apply their skills to a construction challenge by designing, making, and evaluating a lighthouse, once again drawing on their understanding of design, making, evaluating, and technical knowledge.
- ✓ **Year 3** – Children take on engaging projects that strengthen their creative and practical skills. They begin by designing, making, and evaluating a celebration card for a family member, applying their knowledge of design, making, evaluating, and technical understanding. They then explore healthy eating by designing and producing a nutritious snack, developing their skills in cooking and nutrition. Finally, they dive into mechanisms by designing, making, and evaluating a pneumatic system, further building on their technical knowledge alongside the design and evaluation process.
- ✓ **Year 4** – Children will complete three creative projects to build their designing and making skills. They will design, make and evaluate a party box using card and other materials, learning how to cut, fold, join and strengthen shell structures. Next, they will create a working reading light by building a simple electrical circuit with a switch and designing a casing, helping them understand how circuits work in everyday products. Finally, they will design and make a fabric patch to represent themselves for a class quilt, developing skills such as sewing, cutting fabric, and using fabric pens or applique for decoration. Throughout all projects, pupils will practise planning, problem-solving, creativity, and evaluating their designs to make improvements.
- ✓ **Year 5** – Children will develop their design, making, and evaluation skills through three exciting projects. They will begin by creating a moving picture toy, exploring mechanisms such as levers, sliders, and linkages to produce movement. Next, they will design, make, and evaluate seasonal

		<p>confectionery, learning about food hygiene, combining ingredients, and presenting their product creatively for a specific audience. Finally, they will research, design, and make a toy from the past, using tools and materials to recreate traditional toys and understand how design has changed over time. Throughout these projects, pupils will build skills in planning, measuring, cutting, joining, evaluating, and adapting their ideas.</p> <p>✓ <b>Year 6</b> - Children will apply their creativity and problem-solving skills across three challenging projects. They will begin by designing and making a working model of the Trojan horse, exploring mechanical systems and historical context. Next, they will design, make, and evaluate a yeast-based food product to celebrate Easter, developing their understanding of baking, food hygiene, and the significance of Easter in the Christian faith. Finally, they will design and construct a bridge using straws to span a 30cm gap, learning about structures, stability, and testing materials for strength. These projects will help pupils refine their skills in planning, researching, measuring, constructing, and evaluating to improve their final outcomes.</p>	
 <p><b>Cross curricular links</b></p> <ul style="list-style-type: none"> <li>✓ Direct links with: <ul style="list-style-type: none"> <li>○ History</li> <li>○ Geography</li> <li>○ British Values</li> <li>○ PSHE</li> <li>○ Art, Craft and Design</li> <li>○ Enrichment activities</li> </ul> </li> <li>✓ Wren's Nest Schema Webs of Food, Fashion and Technology.</li> </ul>	 <p><b>Retrieval</b></p> <ul style="list-style-type: none"> <li>✓ Quizzes</li> <li>✓ Tasks and activities</li> <li>✓ Big Questions</li> <li>✓ Schemas</li> <li>✓ Debates</li> <li>✓ Wow Days</li> <li>✓ Enrichment Days</li> <li>✓ Hinge Questions</li> </ul>	 <p><b>Progress</b></p> <ul style="list-style-type: none"> <li>✓ Low-stake quizzes</li> <li>✓ Formative assessments</li> <li>✓ Children's Work</li> <li>✓ Through disciplinary skills across year groups</li> <li>✓ Working Wall</li> </ul>	 <p><b>Support</b></p> <ul style="list-style-type: none"> <li>✓ Inclusion for all children</li> <li>✓ Children in provision sets to access strength lessons in year groups</li> <li>✓ Differentiated activities based on skills and knowledge of Design and Technology</li> <li>✓ Adult support in the class</li> <li>✓ High quality resources</li> </ul>