

# Woodside C of E Primary School – Curriculum Overview: Design and Technology



**“Young designers can help build a more sustainable future.” James Dyson**

## **Purpose**

At Woodside C of E Primary School, we aim for all pupils to learn and achieve through our vision of ***‘Together in God’s love we inspire and grow through living life in all its fullness.’ – John 10:10.***

Our Design & Technology curriculum inspires, engages and challenges our pupils to design and make innovative and functional products. Pupils develop knowledge of a diverse range of designers, engineers, architects and chefs, and gain a sense of product design and development in today’s world. Pupils develop their skills as design technologists through mastery of the key disciplines of cooking and nutrition, structures, textiles, mechanisms and electrical systems. Our Design & Technology curriculum enables pupils to consider how technology and engineering have an important place in our community and how design supports wellbeing and spirituality. Our pupils leave Woodside with a life-long love of D&T.

Our Design & Technology curriculum integrates sustainability to inspire our children to think critically about the environment, use eco-friendly materials and consider energy efficiency in real-world design and technology studies. We make use of outdoor learning spaces and utilise our school grounds to grow our own ingredients which we use in the food products that we make.

The aims of the Design & Technology curriculum at Woodside are:

- To inspire, engage and challenge pupils in the designing and making of innovative and functional products
- To develop knowledge of a diverse range of designers, engineers, architects and chefs
- To build knowledge of wide variety of careers within industry locally and nationally and raise aspirations, making use of the local area
- To develop skills as design technologists through mastery of the disciplines of cooking and nutrition, structures, textiles, mechanisms and electrical systems.

## **Curriculum Organisation**

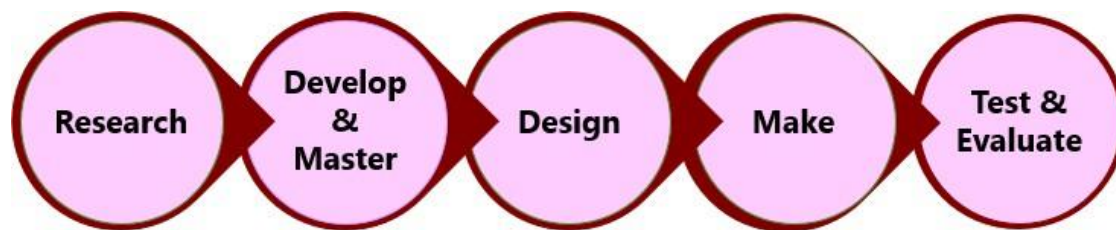
In Early Years, the foundations of Design & Technology are taught holistically, with knowledge and skills woven into half-termly topics that have been developed systematically to ensure progression. Our children flourish in the foundations of D&T through our bespoke provision, developing fine motor skills and making functional products using a range of materials, techniques and small tools, including a fruit kebab, an Easter bonnet and a picture frame.

## Woodside C of E Primary School – Curriculum Overview: Design and Technology



Across Key Stages 1 and 2, D&T is taught through a termly D&T study, each focused on one of the key disciplines of cooking and nutrition, structures, mechanisms and textiles, plus electrical systems in KS2. Studies are varied, relevant and engaging and incorporate working solo, in groups and as a class. Studies include making a smoothie, constructing a model home and making a moving picture with a slider mechanism in Key Stage 1, and constructing a mini-greenhouse, making a Formula 1-style racing car and designing and making a sustainable fashion item. All studies have an explicit product, user and purpose, set within the local area where appropriate. Knowledge and skills for each discipline are developed progressively each year. Sustainability is an on-going theme within all D&T studies.





Design & Technology studies follow a five-part teaching sequence:



1. **Research** – Explore the work of the focus designer, engineer, architect or chef and identify products, style and techniques. Explore a range of existing products.
2. **Develop & Master** - Practise specific skills from the discipline studied.
3. **Design** – Create a design for own product.
4. **Make** – Make own product following design.
5. **Test & Evaluate** – Test finished product and evaluate against design criteria. Use product for intended purpose.





Explicit links to other curriculum areas are made where relevant, in particular Maths, Science and Computing. In addition, children take part in Business Enterprise Week each May, where children work in teams to explore business concepts, design business plans and create products, then sell their products at the Business Enterprise Fayre. This week enhances our D&T curriculum through further development of practical skills, teamwork and knowledge of business and finance.

## Early Years, Key Stage One and Key Stage Two Long-Term – Design & Technology

	Autumn Term	Spring Term	Summer Term
<b>Reception</b>	<p><b>Discipline: Cooking &amp; Nutrition</b>  <b>Product:</b> Fruit Kebab  <b>User:</b> Me  <b>Purpose:</b> To eat as a healthy snack  <b>Designer:</b> Hillary Graves (Little Dish)</p> 	<p><b>Discipline: Textiles</b>  <b>Product:</b> Easter Bonnet  <b>User:</b> Me  <b>Purpose:</b> To wear at the Easter Bonnet parade  <b>Designer:</b> Philip Treacy</p>	<p><b>Discipline: Structures</b>  <b>Product:</b> Picture Frame  <b>User:</b> My Family  <b>Purpose:</b> To display a photograph of me  <b>Designer:</b> Monika Mulder (Ikea)</p> 
<b>Year 1</b>	<p><b>Discipline: Mechanisms</b>  <b>Product:</b> Moving Picture (slider)  <b>User:</b> Me  <b>Purpose:</b> To illustrate a story in a performance  <b>Designer:</b> David Hawcock</p>	<p><b>Discipline: Structures</b>  <b>Product:</b> Bridge  <b>User:</b> Billy Goats Gruff  <b>Purpose:</b> To cross a river  <b>Architect:</b> James Brindley</p>	<p><b>Discipline: Cooking &amp; Nutrition</b>  <b>Product:</b> Smoothie  <b>User:</b> Children in Reception and Nursery  <b>Purpose:</b> To drink and help us be healthy  <b>Designer:</b> Richard Reed (Innocent Drinks)</p> 
<b>Year 2</b>	<p><b>Discipline: Textiles</b>  <b>Product:</b> Puppet  <b>User:</b> Me  <b>Purpose:</b> To use in a puppet show  <b>Designer:</b> Chris Barlow</p>	<p><b>Discipline: Cooking &amp; Nutrition</b>  <b>Product:</b> Pizza  <b>User:</b> Children eating at Pizza Express  <b>Purpose:</b> To add a new pizza to the Piccolo menu  <b>Designer:</b> Peter Boizot (Pizza Express)</p> 	<p><b>Discipline: Structures</b>  <b>Product:</b> Model Village  <b>User:</b> Visitors at St Nicholas's Church  <b>Purpose:</b> To display at a Church exhibition  <b>Architect:</b> Tim Dunn</p>

## Woodside C of E Primary School – Curriculum Overview: Design and Technology



<p><b>Year 3</b></p>	<p><b>Discipline: Cooking &amp; Nutrition</b>  <b>Product:</b> Scone  <b>User:</b> Gayton's  <b>Purpose:</b> To add to the range of scones sold at Gayton's  <b>Baker:</b> David Gayton</p> 	<p><b>Discipline: Structures</b>  <b>Product:</b> Mini Greenhouse  <b>User:</b> Children at Woodside  <b>Purpose:</b> To grow plants in  <b>Architect:</b> Sir Nicholas Grimshaw</p>	<p><b>Discipline: Mechanisms</b>  <b>Product:</b> Mascot (Pneumatics)  <b>User:</b> Baddersley Ensor Kick About  <b>Purpose:</b> To promote the team in the local area  <b>Designer:</b> Crispin Lowry (Rainbow Productions)</p>
<p><b>Year 4</b></p>	<p><b>Discipline: Textiles</b>  <b>Product:</b> Pencil Case  <b>User:</b> Me  <b>Purpose:</b> To store school equipment  <b>Designer:</b> Stephen Meurs (Smiggle)</p> 	<p><b>Discipline: Cooking &amp; Nutrition</b>  <b>Product:</b> Stir Fry  <b>User:</b> Children at Woodside  <b>Purpose:</b> To add diversity to Chartwell's school menu  <b>Chef:</b> Nadiya Hussein</p>	<p><b>Discipline: Electrical Systems</b>  <b>Product:</b> Nightlight  <b>User:</b> Children in Year 4  <b>Purpose:</b> To use on a school residential visit  <b>Designer:</b> B&amp;Q design team</p>
<p><b>Year 5</b></p>	<p><b>Discipline: Cooking &amp; Nutrition</b>  <b>Product:</b> Street Food (pasty / samosa)  <b>User:</b> Parents / families at Woodside  <b>Purpose:</b> To eat at a Pop-Up Street Food event  <b>Chef:</b> Omari McQueen</p>	<p><b>Discipline: Structures</b>  <b>Product:</b> Bird Hide  <b>User:</b> Local birds  <b>Purpose:</b> To provide shelter in school grounds  <b>Designer:</b> Douglas Barnhard</p>	<p><b>Discipline: Mechanisms</b>  <b>Product:</b> Racing Car (Axles &amp; Wheels)  <b>User:</b> Children in Year 5  <b>Purpose:</b> To win the Woodside F1 Race  <b>Designer:</b> Adrian Newey</p> 
<p><b>Year 6</b></p>	<p><b>Discipline: Electrical Systems / Control</b>  <b>Product:</b> Light-Up Sign  <b>User:</b> Visitors at St Nicholas's Church  <b>Purpose:</b> To display at a Christmas Exhibition  <b>Designer:</b> Luminati</p>	<p><b>Discipline: Textiles</b>  <b>Product:</b> Sustainable Fashion piece  <b>User:</b> Child in Year 6  <b>Purpose:</b> To win the Woodside Sewing Bee competition  <b>Designer:</b> Stella McCartney</p> 	<p><b>Discipline: Cooking &amp; Nutrition</b>  <b>Product:</b> Afternoon Tea  <b>User:</b> Year 6 parents / families  <b>Purpose:</b> To eat at a Y6 leavers' event  <b>Designer:</b> Ravneet Gill</p>

## Specialist Resource Provision Long-Term Plan – Design & Technology

### Curriculum Organisation

In our Specialist Resource Provision, Design and Technology is planned and updated as a working document by the class teacher and team based on the individual needs of the children. A range of knowledge and skills are woven into each topic with a clear focus on a discipline within design and technology. The children focus on developing fine motor skills and making functional products using a range of materials, techniques and small tools.

Autumn 1: Junk Modelling	Autumn 2: Salt Dough	Spring 1: Cooking and Nutrition	Spring 2: Play-doh	Summer 1: Puppets	Summer 2: Cooking and Nutrition
<p><b>Focus Designer:</b> Anthony James</p> <p><b>Discipline:</b> Structures</p> <p><b>Materials:</b> Cardboard boxes, egg cartons, bottles, bottle cap, scrap paper and wool</p> 	<p><b>Focus Designer:</b> John Lewis</p> <p><b>Discipline:</b> Structures</p> <p><b>Focus Skills:</b> Rolling and cutting</p> 	<p><b>Focus Designer:</b> Peter Boizot (Pizza Express)</p> <p><b>Discipline:</b> Cooking and Nutrition</p> <p><b>Focus Skills:</b> Rolling</p> 	<p><b>Focus Designer:</b> Play-Doh</p> <p><b>Discipline:</b> Structures</p> <p><b>Focus Skills:</b> Rolling and cutting</p> 	<p><b>Focus Designer:</b> Jim Henson</p> <p><b>Discipline:</b> Textiles</p> <p><b>Focus Skills:</b> Cutting and assembling</p> 	<p><b>Focus Designer:</b> Innocent Smoothies</p> <p><b>Discipline:</b> Cooking and Nutrition</p> <p><b>Focus Skills:</b> Assembling</p> 