



Our Aims

The national curriculum for design and technology aims to ensure that all pupils:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users.
 - Critique, evaluate and test their ideas and products and the work of others.
 - Understand and apply the principles of nutrition and learn how to cook.

Intent

At Randwick C of E Primary School, children receive an inspiring, rigorous and practical design and technology curriculum which encourages them to learn, think and intervene creatively to solve problems, both as individuals and as members of a team. Their interests are captured through our theme curriculum, providing children with motivation and meaning for their learning.

Children are encouraged to exercise their creativity and imagination through designing and making within a defined purpose and tangible outcome. The children are taught to combine their designing and making skills with knowledge and understanding in order to make a product.

Skills are taught progressively to ensure that all children are able to learn and practise in order to develop as they move through the school. Evaluation is an integral part of the design process and allows children to adapt and improve their product.

At Randwick children gain experience working in woodwork, textiles and cooking, producing relevant useable products to solve a specific problem. The children are taught to select and use appropriate tools safely and effectively to make a product.

Design technology creates cross curricular links to mathematics, science, computing, forest school and art. The children are also given opportunities to reflect and evaluate past and present design technology, its uses and effectiveness. They are encouraged to become innovators and risk-takers having the opportunity to learn and extend their understanding, experience and application in the use of technology in a wide variety of situations.

Impact:

We ensure the children:

- Will have clear enjoyment and confidence in design and technology which they will then be able to apply to other areas of the curriculum.
- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users and critique, evaluate and test their ideas and products and the work of others.
- Understand and apply the principles of nutrition and learn how to cook.
- Will design and make a range of products.
- A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child.
- Will learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.



Owl Art in Map





Randwick Church of England Primary School

DT Curriculum

Exploring and Using Media and Materials: Expressive Arts and Design

Early Learning Goal

Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Exploring and Using Media and Materials: Being Imaginative

Early Learning Goal

To use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories

Physical Development: Moving and Handling

Early Learning Goal

To handle equipment and tools effectively, including pencils for writing.
Expressive Arts and Design

Skills

Use simple tools to effect changes to materials.
Handle tools, objects, construction and malleable materials safely and with increasing control.
Show understanding of the need for safety when tackling new challenges and consider and manage some risks.
Show understanding of how to transport and store equipment safely.
Practise some appropriate safety measures without direct supervision.
Explore what happens when they mix colours.
Experiment to create different textures.
Understand that different media can be combined to create new effects.
Manipulate materials to achieve a planned effect.
Construct with a purpose in mind, using a variety of resources.
Use simple tools and techniques competently and appropriately.
Select appropriate resources and adapt work where necessary.
Select tools and techniques needed to shape, assemble and join materials they are using.
Create simple representations of events, people and objects.
Choose particular colours to use for a purpose

Developing, planning and communicating ideas.

- Explain what they are making and which materials they are using.
- Select materials from a limited range that will meet a simple design criteria e.g. shiny.
- Select and name the tools needed to work the materials e.g. scissors for paper.
- Explore ideas by rearranging materials.
- Describe simple models or drawings of ideas and intentions.
- Discuss their work as it progresses.



Joining

Basic level joins

- Glue and pritt stick or PVA (children should understand the difference between the two -Pritt stick is quicker and easier to apply)
- Materials - a range of materials with large, flat surfaces to make joining easier

Mid-level joins - introducing techniques and resources that require more advanced dexterity and a wider range of apparatus.

- tape - masking and Sellotape
- elastic bands
- folding
- blu tack
- paper clip - large and small
- stapler

High level joins - good fine motor manipulation, mastering the use of other equipment and techniques

hole punch -single and double.

- split pins
- treasury tags
- stitching - hole punch and lace/wool/string
- stitching - large, blunt ended darning needle and embroidery thread
- more complex folding and tearing
- glue gun

Tools

Basic level tools

- pencils
- felt tip pens
- crayons
- chalks
- brushes - large
- scissors
- knife - dinner
- hammer
- nails - large

Mid-level tools

- brushes large and small
- safety knives for cutting raw vegetables
- potato peeler
- nails - large and small
- drill

High level tools

- glue gun
- saw
- whittling knife

Evaluating processes and products

- Say what they like and do not like about items they have made and attempt to say why.
- Begin to talk about their designs as they develop and identify good and bad points.
- Start to talk about changes made during the making process.
- Discuss how closely their finished products meet their design criteria.

Food and nutrition

- Begin to develop a food vocabulary using taste, smell, texture and feel.
- Explore familiar food products e.g. fruit and vegetables.
- Stir, spread, knead and shape a range of food and ingredients.
- Begin to work safely and hygienically.
- Start to think about the need for a variety of foods in a diet.
- Measure and weigh food items, non-statutory measures e.g. spoons, cups.



Randwick Church of England Primary School

DT Curriculum

Buzzard DT Skills Progression Map (KS1)

BUZZARD						
Food	Materials	Textiles	Electronics	Computing	Construction	Mechanics
Practical skills						
<p>Cut, peel or grate ingredients safely and hygienically.</p> <p>Measure or weigh using measuring cups or electronic scales.</p> <p>Assemble or cook healthy ingredients.</p> <p>Understand where food comes from.</p> <p>Cross-curricular links with forest school.</p>	<p>Cut materials safely using tools provided.</p> <p>Measure and mark out to the nearest centimetre.</p> <p>Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</p> <p>Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</p> <p>Cross-curricular links with forest school.</p>	<p>Shape textiles using templates.</p> <p>Join textiles using running stitch.</p> <p>Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).</p> <p>Cross-curricular links with forest school and art and design.</p>	<p>Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).</p> <p>Cross-curricular links with science.</p>	<p>Model designs using software (such as 2simple).</p> <p>Cross-curricular links with computing.</p>	<p>Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.</p> <p>Cross-curricular links with forest school.</p>	<p>Create products using levers, wheels and winding mechanisms.</p> <p>Cross-curricular links with science.</p>
Designing, Making, Evaluating, Improving				Taking Inspiration		
<p>Design products that have a clear purpose and an intended user.</p> <p>Make products, refining the design as work progresses.</p> <p>Use software to design.</p>				<p>Explore objects and designs to identify likes and dislikes of the designs.</p> <p>Suggest improvements to existing designs.</p> <p>Explore how products have been created.</p>		

Kestrel Art Skills Progression Map (Lower KS2)



Randwick Church of England Primary School

DT Curriculum

SPARROWHAWK						
Food	Materials	Textiles	Electronic s	Computing	Construction	Mechanics
<p>Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).</p> <p>Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</p> <p>Demonstrate a range of baking and cooking techniques.</p> <p>Create and refine recipes, including ingredients, methods, cooking times and temperatures.</p> <p>Cross-curricular links with forest school.</p>	<p>Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).</p> <p>Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).</p> <p>Cross-curricular links with forest school.</p>	<p>Create objects (such as a cushion) that employ a seam allowance.</p> <p>Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).</p> <p>Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).</p> <p>Cross-curricular links with forest school and art and design.</p>	<p>Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).</p> <p>Cross-curricular links with science.</p>	<p>Write code to control and monitor models or products.</p> <p>Cross-curricular links with computing.</p>	<p>Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).</p> <p>Cross-curricular links with forest school.</p>	<p>Convert rotary motion to linear using cams.</p> <p>Use innovative combinations of electronics (or computing) and mechanics in product designs.</p> <p>Cross-curricular links with science.</p>
<p>Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).</p> <p>Make products through stages of prototypes, making continual refinements.</p> <p>Ensure products have a high quality finish, using art skills where appropriate.</p> <p>Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.</p>			<p>Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.</p> <p>Create innovative designs that improve upon existing products.</p> <p>Evaluate the design of products so as to suggest improvements to the user experience.</p>			

SPARROWHAWK

Sparrowhawk DT Skills Progression Map (Upper KS2)