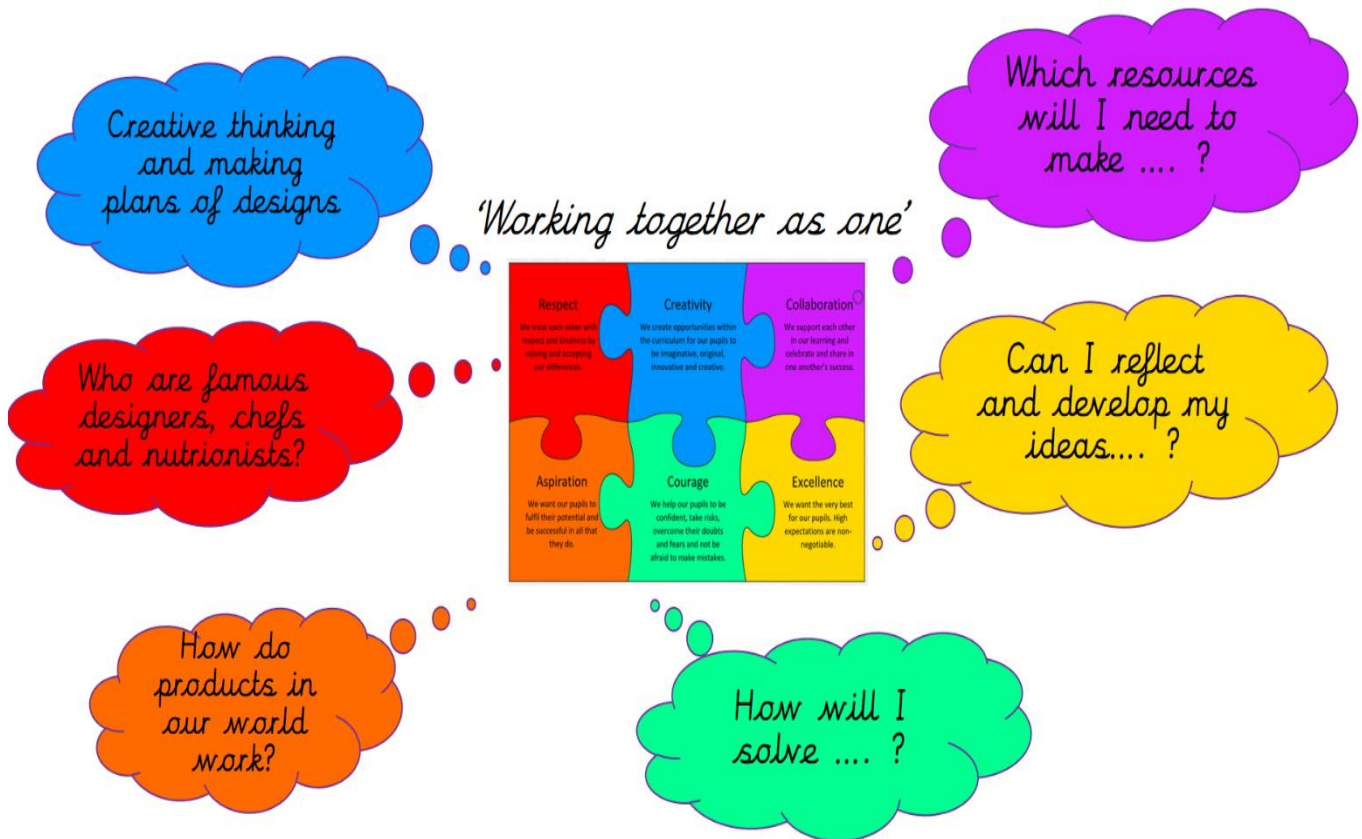


Randlay Primary School and Nursery

Design and Technology Policy



Revised by Lucy Jackson October 2021

Intent – Aims of Randlay’s D&T curriculum

Design and technology is an inspiring, rigorous and practical subject. Design and Technology at Randlay is underpinned by many of the school values. In particular, children demonstrate ‘Creativity’ through researching, designing and making products that **solve real and relevant problems** within a variety of contexts, **considering their own and others’ needs, wants and values**. As a school, we believe that every child has the right to the required knowledge and skills to be able to access the D&T curriculum at the highest level for the end of primary school, in preparation for secondary school. The intent of our D&T curriculum is to develop a **clear progression of our children’s skills and knowledge** in order to enable all of our children to achieve at the highest possible level. The National Curriculum for D&T intends that all children should:

- 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
- Develop the necessary skills to 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

It is essential that our pupils are educated citizens. Throughout the D&T curriculum at Randlay, our children will be introduced to **specific designers, chefs and nutritionists** helping to **aspire to and engender an appreciation of human creativity** and achievement and **increase the cultural capital** from which they can draw in the future.

Objectives

We will achieve our curriculum intent by the following objectives:

- DT is a practical, physical subject: children will all be given hands-on opportunities to weigh, measure, mix, chop, saw, glue, cut, sew, print.

- Children will be encouraged to evaluate their own and their peers' DT learning, and to form judgments about how they can improve their own work; at Randlay, no DT learning is complete until this has taken place.
- Children will have access to a range of sources for their DT research such as prototypes, materials, photographs, written matter, ICT based sources, TV / video/DVD extracts.
- Children will learn in a variety of contexts - individually, in groups, as a whole class
- Children will learn to present their knowledge and understanding in a variety of ways such as demonstrations, instructions, discussions, and written and oral evaluations.
- As skills, understanding and confidence develop, the children will begin to make significant contribution to the design brief of the DT projects.

Implementation

Design and Technology is delivered as part of our **Creative Curriculum**.

- D&T is taught through discrete, meaningful lessons in which children are taught through the **four phases** of researching, designing, making and evaluating their own, and others, products.
- Each Key Stage focuses on 3 or 6 topics throughout the year and, where applicable, the topics will focus on a **separate and specific set of D&T skills and knowledge**.
- D&T is delivered through a designated D&T day each half-term or term. This enable our pupils to **maintain focus and momentum on a project from start to finish**.
- Children will study how objects, mechanisms and products work, using real-life and hands-on examples, making comparisons between and within them.
- Children will be given opportunity to use quality tools and materials, appropriate to their age and the desired project outcome, enabling them to produce attractive and good quality end-products.
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- Children will learn in a variety of contexts - individually, in groups, as a whole class
- Children will learn to present their knowledge and understanding in a variety of ways such as demonstrations, instructions, discussions, and written and oral evaluations.
- As children progress through the Key Stages, they are presented with opportunities to **develop** their skills and make significant contributions to the design brief, as similar topics are **revisited** and built upon **ensuring the children know more, and remember more.**

Impact – Assessment for/of learning

- Assessment of children's learning in Design Technology is an **ongoing monitoring** of children's understanding, knowledge and skills by the class teacher, throughout lessons. This assessment is then used to inform **differentiation, support and challenge** required by the children.
- Children demonstrate their ability in DT in a variety of different ways. Younger children might, for example, show accuracy in using scissors/drawing against a ruler, while older children may use craft knives safely and with precision
- Each topic ends with all children creating a **final product**; these products are a fantastic way for children to demonstrate the skills they have learnt. Throughout the school, children are given the opportunity to consolidate their skills by creating their final product independently. Across a sequence of lessons, **each lesson builds on the previous** and children's skills are improved upon throughout each topic. It is also clear to see the progression of skills throughout the school through the quality of products each Key Stage creates.
- Design and Technology is also monitored by the subject leader throughout the year in the form of book monitoring, looking at outcomes and informal pupil interviews to discuss their learning and understanding and establish the impact of the teaching taking place.

- The subject leader is building a portfolio (photographic and/or prototype) of samples of the children’s work, which will show the expected level of achievement in DT in each year of the school.

What will our children learn? D&T Planning

As part of our Rolling Programme curriculum, each Key Stage is responsible for planning and designing that Key Stage’s Medium Term Plan. These plans list the specific learning objectives and expected outcomes of each session. Randlay’s Creative Curriculum allows the teachers to be creative with their lessons, whilst still ensuring all aspects of the National Curriculum are covered.

D&T Rolling Programme – Curriculum A

Rolling Programme- Curriculum A			
	Intro the Woods Why does our world need woodland?	Walking on the Moon What makes being an astronaut a great achievement?	Grow Your Own What’s the difference between a seed and a bulb?
Design & Technology KS1	Textiles- Design, make and evaluate- Teddy’s Coat. Cut out shapes/ join fabric. Decorate coat. Food- Make recipes. Use tools. Food- Make Gingerbread Men.	Mechanisms- To build wheeled vehicles using kits. Use axels, cotton reels and dowel etc. Test strength of fittings- Moon Buggies.	Food- Group familiar foods. Explain where foods are from. Eat a balanced/ varied diet. Non-standard measures- Soup. Imp of home grown garden foods/ Journey of foods- banana. Honey as natural sweetener.
	Potions Is magic real?	Water, Water Everywhere Where does water come from?	The Secret Garden What might be in a secret garden?
Design & Technology LKS2	Design, Make and Evaluate Puppet Making	N/A	Design, Make and Evaluate Seasonal food- Cooking Fruit and Vegetables
	N/A	Design, Make and Evaluate Waterwheel Prototypes	N/A
	The Space Race Astronauts or cosmonauts?	Ancient Egypt How to prepare for the afterlife?	WW2 What an Enigma!
Design & Technology UKS2	Gears, Pulleys and Structures Design/make/evaluate/technical knowledge Space Buggies	N/A	N/A

D&T Rolling Programme – Curriculum B

Rolling Programme- Curriculum B						
	Journeys Local/ Into the Past <i>How do New and Victorian Towns compare?</i> <i>What are their similarities and differences?</i>		Towers and Turrets <i>Why did castles need defences, dungeons and secret passageways?</i>		Wiggle and Crawl <i>Why are butterflies so brightly coloured?</i> <i>Why can't a crocodile live in the North Pole?</i>	
Design & Technology KS1	Food and Hygiene- To develop food vocab- group foods, chop, gut and weigh food. To design and make a type of food using range of ingredients. Develop food vocab. Design/ make/ evaluate a tea cup and saucer- Designer Clarice Cliff. Structures- gift box- join using glue/ tape/ glue gun.		Structures/ Mechanisms- Model Warwick castle to sustain attack- make functional drawbridges. Textiles- To join fabrics using tape/ glue/ stitch. Decorate, attach items- create a flag design.		Mechanisms- Design and make bug hotels using rolled up card/ plastic tubing etc. Structures- create hedgehog feeding stations joining materials.	
		Mirror, Mirror <i>Is a mirror a true reflection?</i>	Passport to Europe <i>Where do I live?</i>	Rise of Robots <i>Are robots real?</i>	Vicious Volcanoes <i>Why do volcanoes erupt?</i>	Sparks Might Fly <i>How do we use electricity?</i>
Design LKS2	N/A	Design, Make and Evaluate- Kaleidoscopes	Design, Make and Evaluate- Textiles	Design, Make and Evaluate- Levers and linkages	Design, Make and Evaluate- Strengthening structures – volcanoes	Design, Make and Evaluate- Electrical product
	Mayans <i>What skills are needed to become a Mayan chocolatier?</i>		Time Travellers Industrial Revolution & Ancient Greece <i>Who has had the greatest impact and influence on our modern civilisation?</i>		Save our Jungle <i>What's so important about the jungle?</i>	
Design UKS2	Textiles Mayan chocolatier tool case (pencil case)		N/a		Cooking Nutrition Jungle Survival Pack	

Special Education Needs and Differentiation

At our school we teach design and technology to all children, whatever their ability. Design and technology forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our design and technology teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

Intervention through school action will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to design and technology.

We enable pupils to have access to the full range of activities involved in learning design and technology. Where children are to participate in activities outside the classroom, for example, a museum or factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

Role of the Co-ordinator

The co-ordinator works with the whole staff to develop a cohesive D&T experience throughout the school. The co-ordinator will also:

- Support colleagues in their development and understanding of detailed work plans and implementation of schemes of work and in assessment and record keeping.
- Take responsibility for the purchase and organisation of resources for D&T
- Build a portfolio of the children's work
- Keep up to date with developments in D&T.
- Monitor delivery throughout the school.

Equal Opportunities

It is our intention to provide each and every pupil with a broad and balanced D&T curriculum. A curriculum which also approaches those key issues associated with multi-culture and gender. It is our belief that all children (regardless of their own particular ethnic group) have the same entitlement to a broad and varied multi-cultural D&T education, an education which provides a unique insight into the historical and contemporary traditions of both their own culture and that of other nationalities. In addition, every effort is made to seek out ways of reinforcing sexual equality within the classroom where both sexes are treated fairly and are provided with the same educational opportunities.

Health and Safety

In teaching certain practical elements of D&T to pupils, we recognise that safety is a key issue. Thus, at Randlay, we have a specific Risk Assessment for D&T. All safety precautions outlined must be taken. This is done by recognising health and safety in the classroom organisation and, furthermore, by giving children guidance on how to use the equipment provided. Monitoring the pupils in small groups helps overcome the problems of safety when using potentially dangerous D&T equipment. Children will be introduced to the correct techniques for handling D&T equipment and will develop these

techniques as they progress through the school. The co-ordinator is always available to guide staff in the safest ways of using various equipment.