



Oswald Road Primary School

Subject intent statement

Design and Technology

What are the aims and purpose of this subject?

D&T at Oswald Road follows the National Curriculum. Children are offered a wide range of opportunities which allow them to meet or exceed their age related expectations. We always aim for the curriculum to be delivered as enquiry based learning. It is our aim to allow children to make links and connections which will cement D&T's real world relevance. We consider this to be a good way for the children to develop their wider general knowledge of the world and to develop into well rounded young people.

As part of a very creative community, we are always keen to place an emphasis on creativity and experimentation. We believe this allows children to develop their own style and independence. We aim to actively consider the use of positive role models where ever possible. We believe this supports an aspirational attitude amongst our pupils. We aim to introduce children to designers working locally, female designers and designers from a BAME background wherever possible. We aim to acknowledge and celebrate the diverse cultural backgrounds of our school community through our curriculum.

We believe vocabulary is an important part of every art lesson and it is taught explicitly. We aim to help children to use appropriate vocabulary to discuss their work articulately and to think critically when discussing their own work and that of others. This supports our school visioning target of supporting children to be self confident, successful learners.

We aim to ensure all our SEND children access art at an appropriate pitch (both for challenge and support) and have full access to the curriculum. This means they will develop a range of skills in planning and techniques that enable them to plan, execute and evaluate a design project using a range of techniques and materials. We are aspirational for all children

Our curriculum aims to follow the aims of the National Curriculum.

The aims of the national curriculum for art are:

- Design technology is an inspiring, rigorous and practical subject.
- Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.
- They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art.
- Pupils 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.



What are the National Curriculum requirements for this subject?

EYFS development matters

DT encompasses features of understanding the world, physical development and expressive art and design

Physical development:

3 and 4 year olds will be learning to:

Use one-handed tools and equipment, for example, making snips in paper with scissors. Use a comfortable grip with good control when holding pens and pencils. Show a preference for a dominant hand.

Children in Reception will be learning to:

Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.

Understanding the world

3 and 4 year olds will be learning to:

Explore how things work.

Explore and talk about different forces they can feel

Talk about the differences between materials and changes they notice

Expressive arts and design:

3 and 4 year olds will be learning to:

Explore different materials freely, to develop their ideas about how to use them and what to make.

Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures

Children in Reception will be learning to:

Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills

National Curriculum

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.

Key stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They



should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to:

Design

- 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

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria Technical knowledge
- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Key stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment]. When designing and making, pupils should be taught to:

Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world Technical knowledge
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]



- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils should be taught to:

Key stage 1

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

Key stage 2

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

How is this subject's curriculum organised?

In EYFS children are offered a wide range of experiences in the continuous provision environment as well as discrete teaching of new skills such as using scissors or joining materials with glue or tape. Children have to opportunity to experiment with a wide range of materials and resources and are given time to revisit theses to deepen their understanding. We also aim to allow the children to develop their own ideas. Children are encouraged to design for meaningful purposes. For example, can you use the duplo to build house for the teddy?

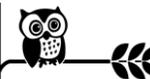
In KS1 and 2 D&T is taught as a discrete subject. Teaching is blocked into a two-day project each term covering one of the areas of food, textiles or construction and materials.

Carefully designed unit plans ensure learning builds on prior experience as well as offering opportunities to revisit and develop skills.

Each block will include all elements of the design process – design, make, evaluate and will include opportunities deepen the child's technical knowledge. We aim to ensure a balance between taught skills and time to experiment and make mistakes. As always, we encourage our children to think critically about their work and support them to try new ideas.

A typical lesson might include critical thinking or questioning, looking at elements of another designer or craftsperson's work, developing skills and ideas, experimenting with techniques and materials, and presentation. The teacher might introduce new ideas to consider or introduce a different cultural perspective. All D&T projects will be about creating useful products that meet a real need in the child's world.

Technical vocabulary is taught discretely as part of every lesson. We are conscious that the vocabulary needed to succeed in D&T, for example the names of tools, is not part of the children's every day vocabulary and that our EAL pupils in particular will need opportunities to hear and use new words in



context. It is modeled by the teacher and children are given repeated opportunities to use new vocabulary in during the lessons. Children can only really start to develop as designers when they can verbalise their ideas and talk about their work articulately

We ensure our SEND children access DT with the appropriate level of challenge and support. All SEND children access DT. All of our SEND children (and within our Universal Offer) have access to appropriately adapted resources and materials.

Some SEND children (SEND support pupils) may need additional support. We offer adapted tasks, additional resources to support and the opportunity to revisit techniques. The curriculum is designed to revisit and build on previous learning to support this.

Our most complex SEND children (Pupils with an EHCP) will have 1 to 1 support. If needed, a pre-teach pack of resources may be given to the supporting staff member to ensure the child has the understanding and vocabulary to fully access and contribute to the lesson. Adaptations are made to the practical tasks where children have specific physical needs e.g with fine motor skills during the materials lessons.

Why is it organised like this?

D&T is taught to meet the requirements of the national curriculum whilst also being responsive to the changing needs of our individual children. We aim to offer a curriculum that recognizes and celebrates the different backgrounds, cultures and experiences of our children. In addition, we aim to offer new perspectives and experiences they might not otherwise get. For example, our food units offer opportunities to make foods that meet our many dietary requirements including Halal, vegan, nut free recipes. Or they might include discussion about the provenance of our food. We will look at the work of a diverse range of designers including the work of BAME crafts people. Children might want to reflect traditional African patterns on their T shirt for instance.

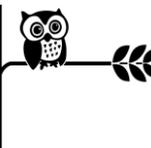
For all of our SEND children (and within our Universal Offer) we offer the same quality experiences and opportunities

For some of our SEND children (SEND support), the extra support enables these children to succeed at DT. DT is an area where children with SEND needs can excel. It offers an opportunity to use practical skills and offers a practical way to develop ideas and thinking.

For our most complex children (pupils with an EHCP), the pre-teach materials offer the opportunity to ask questions in a smaller group and practise new vocabulary so that the children can confidently take an active part in the lesson

We offer quality teaching in a ringfenced timeslot each term thus promoting the value and importance of the subject. Teachers are supported to develop the necessary specialist skills through the sharing of subject knowledge amongst staff. This enables us to offer a wide range of experiences and materials, teach high level skills and have high expectations of our learners.

Our D&T unit offer the children the opportunity to design for a range of real-world situations for example sewing a Christmas hat, making food for a school picnic or creating bird feeders for the playground. This enables children to make links between the skills they are learning and the real-world situations they might apply them to.



Our units are designed to offer opportunities to share our work and take pride in our community. For instance, by sharing food we have made together or by putting up our bird boxes in the playground and enjoying seeing birds use it.

How are knowledge, understanding and skills developed in this subject?

We have clear progression maps in place and detailed unit plans to support teachers.

What does this subject look like...

in lessons?	in books?	in the environment?
<p>Close observation of (and possible disassembly of) existing products or the work of an artist or designer.</p> <p>Teaching of new skills or introduction of new materials.</p> <p>An opportunity to develop personal work.</p> <p>An element of criticism.</p> <p>Verbal feedback from teacher and peers during lesson.</p> <p>Opportunities for collaborative and individual work.</p> <p>Opportunity to experiment.</p> <p>Introduction, modeling and opportunity to use new vocabulary.</p>	<p>D&T work will be recorded on seesaw</p>	<p>Finished products will be enjoyed or shared in the school environment e.g hedgehog houses in the playground, Christmas hats worn at performances or hummus shared at a picnic</p>

How is this subject resourced?

There is a centrally located D&T store which all staff have access to. We have been working improve the range and quality of resources we can offer, focus will continue to be on broadening opportunity and resourcing to ensure progression.

Project boxes will be available to support each unit. These will contain all of the necessary resources, instructions and examples the teacher will need. There will all be a central store of additional resources available to support greater depth – for example if the child has a request for additional or unusual materials to develop their idea.

Now that ipads are available to all year groups, we will develop our use of design apps, use of video to promote and advertise out products and Seesaw to record our thoughts and ideas.

School is committed to funding further development and resourcing in D&T