Ordsall Primary School Design & Technology Policy

Date Reviewed: Spring 2023

Reviewed by: Subject Leader

Approved by: Senior Leadership Team

Shared with Staff: Spring 2023

Next Review: Spring 2024

Play, Learn and Grow...Together!

OUR INTENT, VISION AND ETHOS

At the heart of our learning at Ordsall Primary School is the ancient proverb I **hear** things, and I **forget** them. I **see** things, and I **remember** them. **I do** things, and I **understand** them. This ancient proverb is demonstrated no more clearly than in the words that define our school - **Play, Learn and Grow Together.** It is our aim that, by focussing on each key part, **all** learners at Ordsall Primary will achieve their full potential and many will achieve beyond what is expected through:

By Playing Together they will....

Develop curiosity of mind and spirit
Create, explore and discover
Adapt and cooperate
Learn, practice and master skills AND
Achieve and Aspire to be the "best that they can be"

By Learning Together they will.....

Experience wider opportunities beyond the school
Develop essential skills, knowledge and understanding
Build character, resilience, confidence and independence
Communicate and collaborate as part of a team
Apply learning across a broad, balanced, rich and exciting curriculum AND
Achieve and Aspire to be the "best that they can be"

By Growing Together they will.....

Know that we all have the same rights and needs
Develop integrity and an understanding of what is right and wrong
Develop tolerance and acceptance of **people's individual characteristics**
Inspire others and celebrate every achievement
Work together, in partnership, as a wider community of learners AND
Achieve and Aspire to be the "best that they can be"

In addition we strive to develop and uphold the Fundamental British Values of:

- Democracy
- Rule of Law
- Individual Liberty and tolerance of those of different faiths
- Developing personal and social responsibility
- Respect for British Institutions

Safeguarding Statement

At Ordsall Primary School we respect and value all children and are committed to providing a caring, friendly and safe environment for all our pupils so they can learn, in a relaxed and secure atmosphere. We believe every pupil should be able to participate in all school activities in an enjoyable and safe environment and be protected from harm. This is the responsibility of every adult employed by, or invited to deliver services at Ordsall Primary School. We recognise our responsibility to safeguard all who access school and promote the welfare of all our pupils by protecting them from physical, sexual and emotional abuse, neglect and bullying.

Definition

Design and Technology is a subject where children's capability in designing and making is developed through combining their designing and making skills with knowledge and understanding. At Ordsall Primary School we view Design and Technology as a subject which allows children to apply their knowledge and understanding in a creative way to design and make products.

"Design and 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"

Aims

- Successful learners, who enjoy learning, make progress and achieve.
- Confident individuals who are able to live safe, healthy and fulfilling lives.
- Responsible citizens who make a positive contribution to society.
- 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.

Planning, teaching and learning

Relationship, sex and health education (RSHE)

Design and technology contributes to the teaching of Relationship, sex and health education. We encourage the children to develop a sense of responsibility in following safe procedures when making things. They also learn about health and healthy diets. Their work encourages them to be responsible and to set targets to meet deadlines, and they also learn through their understanding of personal hygiene, how to prevent disease from spreading when working with food.

Spiritual, moral, social and cultural development

The teaching of design and technology offers opportunities to support the social development of our children through the way we expect them to work with each other in lessons. Our groupings allow children to work together, and give them the chance to discuss their ideas and feelings about their own work and the work of others. Through their collaborative and co-operative work across a range of activities and experiences in design and technology, the children develop respect for the abilities of other children and a better understanding of themselves. They also develop a respect for the environment, for their own health and safety and for that of others. They develop their cultural awareness and understanding, and they learn to appreciate the value of differences and similarities. A variety of experiences teaches them to appreciate

that all people are equally important, and that the needs of individuals are not the same as the needs of groups.

Foundation Stage

Children in the Foundation Stage will undertake investigative and skills based tasks during independent working time, through continuous provision. The Design and Technology area (which can be known through other names e.g. construction area) will be available to them on a daily basis and they will be encouraged to undertake focused, practical tasks through directed and self-initiated stimuli. They will be provided with resources based on topics within the focus of the classroom and will be encouraged to design and develop ideas independently. Children in the Foundation Stage work on a range of creative themes and tasks, and their work in Creative Development links closely to other areas of the Foundation Stage Profile, especially Physical Development.

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, making and evaluating. They should work in a range of relevant contexts, for example, the home and school, gardens and playgrounds. When teaching DT, 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.

Cooking and nutrition

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

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, making and evaluating. They should work in a range of relevant contexts, for example, the home, school, leisure, culture, enterprise, industry and the wider environment. When teaching DT, 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

- 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.

British Values

At Ordsall Primary School, we teach our British Values through Design and Technology in the following ways:

Democracy

- The children must take the views and opinions into account but still have the right to make their own choices.
- To take turns both in speech and practically with others.
- To understand that it is not always possible or right to have their own way and understand the value of compromise.

The Rule of Law

- To understand the importance of safety rules when using tools.
- To understand and accept that if these rules are not followed that there are consequences to this. ICT Policy Reviewed Spring 2024

Individual liberty

- To understand that there are able to listen to others but can use their own ideas and design choices when making an artefact.
- To accept that others ideas may not be the same as their own but are able to accept this.

Tolerance

- To tolerate ideas from others that are different to their own.
- To understand that many great design ideas originate from other cultures.

Mutual Respect

- To listen to and consider the ideas and opinions of others even if they differ from your own.
- To be able to take turns during discussions to resolve difficulties or make decisions.
- To offer supportive comments in evaluations that will improve learning outcomes in a way that is objective but sensitive to the listener.

Cultural Capital

Cultural capital is *"the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement."* Ofsted 2019. It is recognised that for pupils to aspire and be successful academically and in the wider areas of their lives, they need to be given rich and sustained opportunities to develop their cultural capital. At Ordsall Primary School we use six key areas of development that are interrelated and cumulatively contribute to the sum of a pupil's cultural capital. They are: **Personal Development, Social Development, Physical Development, Spiritual Development, Moral Development and Cultural Development.** Within the area of Design and Technology we have constructed our curriculum to be ambitious and designed to give all learners, including SEND and the most disadvantaged, the knowledge and cultural capital they need to success in life. Many links are made between the six key areas within our contextualised planning so that it ensures that we can provide as many first hand and hands on experiences for our pupils as we can.

How D&T is taught

Key Stage 1 & 2 children will undertake Design & Technology at least once every term. They will also have opportunities during Design and Technology lessons to develop their own ideas and generate designs independently.

The structure of lessons will vary per year group which can follow, but is not limited to, design, make and evaluate. Other variations may take a specific look at just one key area of D&T per block but class teachers will ensure that all appropriate objectives are covered during the year.

Outcomes of teaching

Recording of D&T will be completed as follows:

- TBAT and date to be written at the top of each piece of work.
- TBAT to reflect appropriate objective from National Curriculum.
- Work to be presented on a bordered sheet.
- Photographs, captioned.
- Clear frames/templates used to help support direction of child's thinking with a greater emphasis on child led learning as each year progresses.

Assessment

Assessing a child's performance is a continuous process carried out over the full duration of Primary school and our assessing methods include the following as appropriate: -

1. Looking at a child's recorded work i.e. model, photographs, written work.

2. Individual discussion.

3. Listening to the children's ideas as they discuss between themselves.

4. Group discussions in both planning and reporting back sessions.

5. Observing the children's skills in Design and Technology.

6. Record the progress that children make by assessing the children's work against the learning objectives for their lessons. At the end of a unit of work, teachers make a judgement against the objectives Progression Map.

Accessibility/ Equal opportunities and inclusion of all children

- We believe that it is important for all children to experience the range of Design and Technology activities. We will use opportunities within Design and Technology to challenge stereotypes.
- All children will be encouraged and supported to develop Design and Technological capability through a range of materials. We recognise the importance of identifying the specific difficulties that individual children might experience, this will be addressed through differentiated planning.
- We expect all children to participate in Design and Technology projects. Specialist equipment and support will be sought and provided for any children who need them in order that they will be included within and have access to tasks in Design and Technology.
- The Subject Coordinator will liaise closely with the SENCO (Special Needs Coordinator) to ensure that all our children have differentiated access to Design and Technology, including provision of special resources or equipment where necessary and possible.

Health and Safety

Teachers will always teach the safe use of tools and equipment and insist on good practice. In food units of work teachers will ensure that they check against the food allergy list and adhere to good food hygiene practices.

Monitoring Cycle

- There is a broad and balanced Contextualised Curriculum Planning in place, ensuring continuity, progression and coverage of the Design and Technology curriculum which will be monitored regularly by the coordinator.
- Examples of work will be monitored regularly by the coordinator to check teaching matches intended learning.
- The subject co-ordinator will use evidence from Nursery to Year 6 to identify and show progression using vocabulary/knowledge progression grids.
- Monitoring will also involve lesson drop ins to identify teacher knowledge, child participation and a differentiation of learning styles to meet the needs of all learners.
- Regular timetable checks will be carried out and triangulated with the contextualised curriculum plans to identify correct TBATs.
- Audit of social media to show promotion of Design and Technology.
- Photographs of classroom displays to check for encouragement of vocabulary, promotion of children's work and evidence of child-led learning.
- Pupil voice will be conducted and triangulated alongside vocabulary/knowledge progression grid and long-term milestones.
- An annual audit of Design and Technology resources will be conducted by the coordinator to ensure that appropriate resources are available.
- Regular communication with teaching staff to identify opportunities for experience days and school visits both locally and across the country.

Written date: Spring Term 2023

Review date: Spring Term 2024

Edited: Spring 2023