



Intent

Design Technology brings learning to life. It is a motivating context for discovering literacy, mathematics, science, art, PSHE and ICT. At Emmaus, Design Technology education involves two important elements - learning about the designed and made world and how things work, and learning to design and make functional products for particular purposes and users. Through Design Technology at Emmaus, we aim to provide opportunities for all our pupils to develop their capabilities in these areas. By combining their design and making skills with technical knowledge and understanding, they learn to create quality products.

Through the DT curriculum, children should be inspired by engineers, designers, chefs and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems and food products with a real life purpose. In order to provide a range of opportunities for our children to develop as independent, successful learners with high aspirations, our DT curriculum is also intrinsically linked to our whole school curriculum drivers:

❖ **Gospel Values**

As a joint denominational school, Christian values are at the forefront of daily school life at Emmaus. The values of 'Hope', 'Trust', 'Friendship' and 'Love' are actively promoted throughout our DT curriculum. The children are encouraged to show trust and friendship as they work together to help each other with their projects. Moreover, they should show respect as they talk about what they like and dislike when designing and making things.

❖ **Cultural Capital**

At Emmaus, we believe that a rich and broad curriculum builds cultural capital and we thus provide our children with a vast range of experiences and opportunities to help them progress and achieve success. Throughout the DT curriculum, we foster enjoyment, satisfaction and purpose in designing and making things. The children are encouraged to ask questions; to search for answers; to make things that help others; to draw ideas and build designs; to test and make changes to their designs. They learn that it is acceptable to make mistakes and consequently to develop evaluation skills to critically analyse and improve products and designs.

❖ **Diversity**

At Emmaus, we understand the importance of developing a curriculum that is diverse, allowing the children to expand their knowledge and understanding of many different identities in a manner appropriate to the subject matter being taught. Our DT curriculum appreciates the work of contemporary and historic designers and their contribution to the world in which we live. In addition to the wealth of impressive structures in our city, and exciting foods from the rich variety of cultures found here, we also look to those from around the world. For example, our food topics tie in with geography lessons as children consider Mayan and South American influences. The children study a range of diverse design figures including Coco Chanel, Vivienne Westwood, George Stephenson, Isambard Kingdom Brunel, Karl Benz, Guglielmo Marconi, Jon Von Neumann, Iggy Peck and Rosie Revere.

❖ **Independence**

Our DT curriculum heavily promotes independent learning. The children are encouraged to use their creativity and imagination to design and make products that solve real and relevant problems, considering their own and others' needs. They are encouraged to express their own findings freely and children demonstrate their findings in their exercise books. Pupils are guided towards selecting the most appropriate tools and techniques for making a product, whilst following safe procedures.

❖ **High expectations**

In line with all areas of our school curriculum, we have high expectations for all children to achieve their potential in DT- regardless of their starting points. The DT curriculum and assessment system at Emmaus is developed to ensure that we motivate pupils, monitor progress and achieve consistently high standards. There are high expectations for children to use appropriate vocabulary to articulate their findings. There is a clear and ambitious progression of vocabulary from Early Years to Year 6.

Implementation

In accordance with the National Curriculum's expectations, we aim to ensure that all pupils:

- Produce creative work, exploring their ideas and recording their experiences
- Become proficient in craft and design techniques
- Evaluate and analyse creative works using the language of art, craft and design
- Know about great artists, craft makers and designers, and understand the historical and cultural development of their art forms

Long term curriculum planning is based upon the statutory requirements of the National Curriculum 2014 Programme of Study for Design Technology. The Curriculum Map for DT shows how DT coverage is ensured across KS1, LKS2 and UKS2, using the 'Projects on a Page' scheme units of work, covered in each year group every term. All teaching of DT should follow the research, design, make and evaluate cycle. These units of work have been compiled, planned and agreed by the DT subject leader and class teachers and endorsed by SI Liverpool Curriculum Lead. DT plans, teaching and learning are monitored by the DT lead for coherence and progression. Teachers are careful to select topics and methods of delivery that are appropriate to the needs and experience of the pupils and to the local circumstances of the school.

SEND - Adaptive teaching will take place to ensure that all pupils can access the planned lessons.

Children showing extensive aptitude in DT will be celebrated in weekly celebration assemblies. Pupils may also have their work displayed in school, presented to parents (Year 1 fruit kebabs as a buffet at their assembly) and may win competitions in which we take part (Absolutely Catering Cook Book). We make use of existing expertise within the school community, linking with our school kitchen manager (with Hutchison Catering) to create an Emmaus Recipe Book which raised funds for Mary's Meals.

Impact

At Emmaus Primary School, Design Technology is a popular subject with our pupils. They favour making decisions for themselves, planning purposeful projects and doing practical work to see their ideas come to life. Children 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. Our children are becoming creative problem-solvers, both as individuals and as part of a team.

Teaching and Learning Styles

Good teaching relies on using appropriate methods for the aim of the lesson or unit of work. All teachers are encouraged to develop a repertoire of flexible, active learning methods, as well as an understanding of how pupils learn.

At Emmaus, teaching methods may include a variety from the following:

- Effective strategies for starting and ending lessons, sharing objectives with pupils
- Encouraging an active, questioning approach among pupils
- Providing opportunities for pupils to work both individually and as part of groups
- Problem solving, with older pupils deciding on their own lines of enquiry
- Developing strategies to encourage independent learning
- Focusing on key skills, concepts and attitudes of the subject
- Time for reflection, review and evaluation

Contribution of Design Technology into other subjects

English

Design Technology contributes to the teaching of English in our school by providing valuable opportunities to reinforce what the children have been doing during their English lessons. Discussion, drama and role-play are important ways that we now employ for the children to develop an understanding that people have different views about Design Technology. The children explain their designs orally or on paper and later, the evaluation of their products require children to articulate their ideas and to compare and contrast their views with those of other people. Through discussion children learn to justify their own views and clarify their design ideas.

Mathematics

Many of the Design Technology units provide the opportunity to use their mathematical skills in real-life situations and contexts. The main areas of mathematics covered in these units are:

- real-life problems
- measure
- shape and space
- handling data

Science

Many units provide opportunities for children to use and develop scientific knowledge and understanding. There are opportunities for pupils to use their knowledge and understanding through:

- working with a range of materials, e.g. a range of fabrics and a range of different
- types of paper and card.
- working with electrical circuits and switches.
- working with food products related to healthy eating.

Computing

We use Computing to support Design Technology teaching when appropriate. Children use software to enhance their skills in designing and making, and use draw-and paint programs to model ideas and make repeating patterns. CAD (Computer Aided Design) is a key skill and is taught using software such as Tinkercad and Purple Mash. Pupils also use the internet to source a range of information and gain access to images of people, technological images and environments. In addition, the children use Computing to collect information and to present their designs through draw-and-paint programs.

Art and Design

Many units provide opportunities for pupils to use and develop creative skills, knowledge and understanding. Opportunities exist for pupils to use their creative knowledge, skills and understanding through:

- the use of pattern, texture and colour.
- experimenting with visual elements such as pattern and shape.
- investigation of products from a range of cultures
- safe use of materials and tools.

Personal, Social and Health Education (PSHE) and Citizenship

Design Technology contributes to the teaching of personal, social and health education and citizenship. 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 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 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, including the contribution that people from other cultures have made to the Design Technology industry. 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.

Equal opportunities

Children, irrespective of ability, race, gender or sexual orientation, are given full access to the Design Technology curriculum, in accordance with the requirements of recent relevant legislation.

The Foundation Stage

From our own Early Years curriculum, taking into consideration 'Development Matters', Design Technology in the Early Years Foundation Stage is integrated into the learning opportunities planned and provided throughout the year. Through the 'Physical Development', 'Understanding the World' and 'Expressive Arts and Design' areas of learning, pupils in Nursery and Reception have direct opportunities to develop fundamental DT skills in using a variety of media to: design, make, handle tools and materials, practise different techniques, engage with

technological equipment and experience different foods and tastes. Early Years practitioners engage with pupils to develop those 'characteristics of effective learning' pertinent to DT: exploring the world, active learning, creating and thinking critically.

Resources

Our school has a wide range of resources to support the teaching of Design Technology across the school. Classrooms have a range of basic resources, with the more specialised equipment being kept in the Design Technology room and resource cupboard. Audits will be carried out regularly to monitor the resources, any shortfalls should be reported to the coordinator who will arrange for replenishment. This room is not accessible to children without adult supervision. The infant and junior libraries contain a selection of Design Technology books.

Health and Safety

The general teaching requirement for health and safety applies in this subject. At Emmaus, we teach pupils how to follow proper procedures for food safety and hygiene. All adults leading DT lessons/ activities should ensure that they have read and understood the following:

Adults should ensure that:

- DT equipment is not left out and unsupervised, Floors and work surfaces are kept clean and tidy and all tools used must be of good quality, in good condition and stored safely.
- Direct safety instructions should be given to pupils each time they undertake a Design Technology activity.
- Pupils should be given suitable instruction on the operation of all equipment before being allowed to work with it.
- Pupils should be strictly supervised in their use of equipment at all times. Adult to pupil ratio must be appropriate to the activity e.g. closer supervision on activities such as use of a glue gun.
- Pupils should be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.

Specific health and safety points must be included on unit of work plans. These help teachers to identify activities of a high risk and highlight any areas in which they need to reduce risk or ensure safe practice.

Design Technology Policy Statement regarding the use of food at Emmaus Primary School

When working with food:

- An adult will be required to supervise activities involving cooking and food handling/preparation.
- When undertaking food activities the appropriate Health and Safety procedures must be adhered to.
- When working with food all pupils should follow personal hygiene guidance (tie back hair, clean apron, use of blue plasters and washing hands)
- Teachers should check the dietary needs of the pupils in their class to identify any foods that should not be available to specific pupils, or groups of pupils.
- Any perishable food should be stored in a fridge.
- Only the equipment in the food cupboard, which is for food use only, should be used.
- Ensure that the plastic work sheets, especially for use with food, cover the desk area. This sheet should be wiped down with a steriliser.
- Only use equipment set aside to use with food.
- Set aside an area for pupils to wash their hands.
- Teachers taking part in any food activity should dress appropriately and follow the same procedures as the pupils with regard to any rules regarding personal hygiene.
- Ensure that all equipment is cleaned and put away in the food cupboard.
- Ensure that all pupils use their own equipment when tasting food.

Assessment and Recording

Assessment is based upon 'Projects on a Page' units of work and built into DT planning and teaching, either regularly in small steps, or on completion of a unit of work. All class teachers are responsible for short term planning based on the 'Projects on a Page' scheme and medium term plans.

Class teachers will:

- Identify the appropriate teaching and learning strategies required.
- Provide a balance and variety within the classroom – of content and organisational opportunities for pupils.
- Assess and plan for the specific needs of pupils within their own class whilst adhering to the progression laid down through the DT scheme of work.

Monitoring and Evaluation

The monitoring of the standards of children's work and of the quality of teaching in Design Technology is the responsibility of the Design Technology co-ordinator. The work of the co-ordinator also involves supporting colleagues in the teaching of Design Technology, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. The Design Technology co-ordinator has allocated non-contact time in order to review evidence of the children's work and monitor and evaluate the quality of Design Technology teaching across school.

The Design Technology Subject Leaders will:

The Computing and Technologies faculty leader takes responsibility for monitoring the standard and quality of teaching and learning in Design Technology across the school. The DT lead supports colleagues in the teaching of Design Technology, keeps up to date with current developments in the subject, identifies training needs and arranges relevant CPD and provides a strategic lead in driving improvement for the subject in the school.

The faculty leader is supported by faculty members, representing each phase of the school (EY, KS1, LKS2, UKS2).

Faculty meetings are held termly and during these, faculty members:

- Review and update the School Development Plan
- Feeds back relevant information or good practice resulting from CPD or subject leader briefings
- Ensure resources are available and relevant, particularly in preparation for each unit of work.
- Highlight key issues or areas of strength to be celebrated
- Monitor and evaluate DT through the school.
- Provide INSET.
- Promote Design Technology's high profile in the school.

Our statement of SMSC

Through our varied curriculum our children will have...

- A sense of enjoyment and fascination in learning about themselves, others and the world around them, including the intangible
- imagination and creativity in their learning
- A willingness to reflect on their experiences.
- The ability to recognise the difference between right and wrong and their readiness to apply this understanding in their own lives
- An understanding of the consequences of their actions
- A willingness to participate in a variety of social settings, cooperating well with others and being able to resolve conflicts effectively
- A willingness to participate in, and respond to, for example, artistic, musical, sporting, mathematical, technological, scientific and cultural opportunities

Date: - September 2023

Date of next review: - September 2025