Introduction

At Our Lady and St Thomas school, we recognise that children are living in a highly developed technological society. They are constantly using and controlling a wide range of technology whether it be the use of a light switch, calculator, computer system or photocopier. This is all part of their experience of life and one which they will use in the classroom. Design and Technology is about practical problem solving and using materials available to them to solve problems in a man-made environment. At primary school level, we can instil attitudes towards Design and Technology in which the children can realise that in technology there is never just one correct solution. The process of identifying a need, designing a solution, building an artefact and testing and evaluating it can be most satisfying to the child, particularly if it works and has some relevant function or application.

As a Rights Respecting School we uphold the articles from the United Nations Convention on the Rights of the Child.
These articles underpin our Computing policy:
Article 29 (goals of education) Education must develop every child's personality, talents and abilities to the full. It must encourage the child's respect for human rights, as well as respect for their parents, their own and other cultures, and the environment.
Article 3 (best interests of the child) The best interests of the child must be a top priority in all things that affect children.
Article 17 (access to information from mass media) Every child has the right to reliable information from the media. This should be information that children can understand. Governments must help protect children from materials that could harm them.

Rationale

Our Lady and St Thomas school recognises the importance of technology for pupils of all abilities as a subject which helps prepare them for the rigours and demands of adult life and acknowledges the two main areas of the subject, the Design and Technology capability and Computing capability.

Aims And Objectives

Our Lady and St Thomas school believes that Design and Technology is an essential component of the curriculum because it aims to develop:
(1) Basic knowledge and identity of: Materials (natural and man-made) Forms and sources of energy Sensing and control systems Design (planning, organisation, aesthetics, presentation) Evaluation Skills in the above area
(2) Competence in: Use of instruments, equipment, tools and systems. Application of instruments, equipment, tools and systems. Use of materials
(3) Awareness of: Real life situations and issues Impact of technology (past, present and future) Conflicts of interests (personal, economic and environmental) Aesthetic and social implications.
(4) Attitudes should encourage: Curiosity Originality Initiative Co-operation Perseverance Open mindedness Self-criticism Responsibility towards materials, tools and environment.

Teaching And Learning Style

Our Lady and St Thomas School uses a variety of teaching and learning styles in Design and Technology lessons. The principal aim is to develop children's knowledge, skills and understanding in the subject. Teachers ensure that children apply their knowledge and understanding when developing ideas, during planning and making products and when evaluating them. This is done through a mixture of whole-class teaching and individual or

group activities. Within lessons, children are given the opportunity both to work on their own and to collaborate with others, listening to other children's ideas and treating these with respect. Children critically evaluate existing products, their own work and that of others. They have the opportunity to use a wide range of materials and resources, including ICT. In all classes there are children of differing ability. This fact is recognised and suitable learning opportunities are provided for all children by matching the challenge of the task to the ability of the child. This is achieved through a range of strategies such as: Setting common tasks that are open-ended and can have a variety of results; Setting tasks of increasing difficulty where not all children complete all tasks; Providing a range of challenges through the provision of different resources; Using additional adults to support the work of individual children or small groups; Providing support where individual children have particular gifts or talents.

Design And Technology Curriculum Planning
Design and Technology is a foundation subject in the National Curriculum and we have dedicated time within our Foundation Subject day to this. Activities in Design and Technology are planned so that they build on prior learning and the DT Association Plan-on-a-Page are used to support this. Children of all abilities are given the opportunity to develop their skills, knowledge and understanding, and we also build planned progression into the themes so that the children are increasingly challenged as they move through the school. Design and Technology generally takes place during Friday sessions, occasionally a block of days/ afternoons at the teachers' discretion.

Design And Technology In The Foundation Stage
Throughout the Foundation Stage, activities and opportunities are planned where children can learn through talk, play and their own life experiences. Children in the Foundation Stage will experience a variety of activities including: Choosing and exploring a variety of materials such as fabric, card, paper, wood, boxes etc. Learning how to use scissors safely and correctly, Exploring a variety of joining techniques such as PVA glue, Pritt stick, masking tape, elastic bands, Cellotape, treasury tags, split pins, paper clips and string to join materials together, Taking part in both cooking and non-cook food activities, learning about the importance of food hygiene, Having opportunities to explore creating models using a wide range of construction kits that fit together in a variety of different ways, Having opportunities to talk about and explain how they will/have made their model and to discuss what they like/dislike about it, Folding and shaping paper in order to create a range of structures.

Design And Technology In Key Stage 1 And 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 and school, gardens and playgrounds, the local community, industry and the wider environment] to design, make and evaluate as well as increase their technical knowledge:

KS1: Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms, such as levers, sliders, wheels and axles, in their products.

KS2: Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors Apply their understanding of computing to programme, monitor and control their products. The children will work in mixed Year 3&4 and Year 5&6 groups.

Cooking And Nutrition
As part of their work with food, children will be taught how to cook and apply the principles of nutrition and healthy eating, opening the door to one of the great expressions of human

creativity. Learning how to cook is a crucial life skill that enables children to feed themselves and others affordably and well, now and in later life. The children are taught to cook a range of hot and cold foods with a focus on savoury dishes where possible.

Inclusion

Our Lady and St Thomas School recognises the importance of inclusion and the Design and Technology curriculum ensures equal access to all pupils regardless of their ability, aptitude, race, religion or gender. A wide range of gender specific and cultural images and contexts may be used and we will use these opportunities to challenge stereotypes.

Monitoring And Assessing

Each topic is planned and delivered with clearly defined learning intentions which are shared with the pupils. Pupils' work is photographed (when possible) and samples collected, if appropriate. Teachers assess children's work in Design and Technology by making assessments as they observe them working during lessons, allowing for different learning styles. They record the progress that children make by assessing the children's work against the learning intentions for the lessons. Children are encouraged to make judgements on ways in which their work can be improved. These assessments will then be used to judge whether the children are working at age related expectations, below or at a greater depth. Teachers will assess the attainment of pupils at the end of the year as part of the pupil annual report and will report a pupil as working 'at expectation', 'below expectation' or 'greater depth' in relation to the National Curriculum.

Health And Safety

At Our Lady and St Thomas School we teach children how to follow proper procedures for food safety and hygiene. In this subject the general teaching requirement for health and safety applies. It is the responsibility of the subject leader to pass on any relevant Health and Safety information to staff. It is the individual member of staff's responsibility to ensure that they have read, understood and act on this information.

Resources

Our Lady and St Thomas School has a wide range of resources to support the teaching of Design and Technology across the school. Classrooms have a range of basic resources, with the more specialised equipment being kept in the Science/Art storage. This is accessible to children only under adult supervision.

The Role Of The Subject Leader

The subject leader will guide and inspire learning, monitor and evaluate teaching and learning. They will also provide support and guidance to colleagues on teaching the units of work, as well as maintain equipment and make them easily accessible for teachers. The subject leader will attend courses for CPD and report back to staff.

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