

Design and Technology Policy

Town Lane Infant School

Links to UNCRC - United Nations Convention on the Rights of a Child

Article 28 – Every child has the right to an education. Primary education must be free. Secondary education must be available for every child. Discipline in schools must respect children's dignity. Richer countries should support poorer countries in doing this.

Article 29 – 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 31 – Every child has the right to relax, play and take part in a wide variety of cultural and artistic experiences.

Intent

Design and Technology at Town Lane Infant School is an inspiring, rigorous and practical subject where children learn to think creatively to solve problems. As Design Technologists, we develop our natural curiosity alongside extending our understanding and skills base. We encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We aim to, wherever possible, link work to other subjects such as mathematics, science, computing and art. The children also have opportunities to reflect upon and evaluate past and present designs, its uses and its effectiveness and are encouraged to become innovators and risk-takers. We believe that all children should have equality of opportunity and should be able to access the curriculum regardless of race, religion, gender or ability.

Implementation of Design Technology

- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making
- To enable children to talk about how things work, and to draw and model their ideas -To encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures
- To explore attitudes towards the mad world and how we live and work within it
- To develop an understanding of technological processes, products, and their manufacture, and their contribution to our society
- To develop important skills of collaborative work and understanding of others views and ideas, and also individuals independent working styles
- To foster enjoyment, satisfaction, creativity and purpose in design and making

Teaching and Learning Styles

The 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 design and technology. Teachers ensure that the children apply their knowledge and understanding when developing ideas, planning and making products and then evaluating them. We do this through a mixture of whole-class teaching and individual/group activities. Within lessons, we give children the opportunity to work on their own and in collaboration with others. Children sometimes use non-fiction texts to extract information and support their ideas when developing their own designs.

Curriculum

Design and Technology is a subject within the National Curriculum. Through a topic-based curriculum, we aim to develop meaningful and creative learning opportunities. Teachers plan the activities in design and technology so that they build upon the prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

The Foundation Stage

In the Foundation Stage, teachers encourage the development of skills, knowledge and understanding that help reception children make sense of their world as an integral part of the school's work. As the reception class is part of the Foundation Stage of the National Curriculum, we relate the development of the children's knowledge and understanding of the world to the objectives set out in the Early Learning Goals. These underpin the curriculum planning for children aged three to five. This learning forms the foundations for later work in design and technology.

These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with control. Adults in the setting provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion.

These activities, indoors and outdoors, attract the children's interest and curiosity.

Contribution of design and technology to teaching in other curriculum areas:

Art

We encourage children to produce detailed product designs to a high standard using a range of techniques and media and to then decorate products to meet plans. Drawn records of the finished product for evaluation purposes are encouraged.

English

Design and technology contribute to the teaching of English in our school by providing valuable opportunities to reinforce what the children have been doing during their design and technology

lessons. Discussion is an important way for the children to develop an understanding that people have different views about design and technology. The evaluation of products requires children to articulate their ideas and to compare and contrast their views with those of other people. Through discussion and debate children learn to justify their own views and clarify their design ideas.

Information and communication technology (ICT)

We use ICT to support design and technology teaching when appropriate. Children use software to enhance their skills in designing and making and use ICT to collect information.

Forest schools

Children have the opportunity through our termly forest school sessions to access design and technology, in particular have the use of tools such as bowsaw, loppers, secateurs, mallets, billhook, hammers, knives, flint and steel for fire lighting, peelers for whittling, palm drills and hand drills.

Visitors

We also whenever possible invite in outside agencies such as chefs to enhance our provision of design and technology.

Personal, social and health education (PSHE) and citizenship

Design and 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 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 varied grouping of children allows them to work together 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, the children develop respect for the abilities of other children. Children begin to understand and 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.

Teaching design and technology to children with Special Educational Needs

At our school we teach design and technology to all children, whatever their ability. 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.

Provision for more able pupils

More able pupils will be given opportunities to use a more open and self-guided approach to a topic. They will be given the opportunity to create more complex plans and construct items using a greater range of tools and skills when appropriate. They will be supported in their evaluation of their work to ensure they become more self-aware and to aid a greater level of progress than their peers.

Impact

On-going formative assessment is an integral part of good practice. Its main purpose is to enable the teacher to match work to the abilities and needs of the children and ensure progression in learning. Teachers assess children's work in Design and Technology by making assessments as they observe them working during lessons. Children will keep sketches, plans, drawings, make models and evaluate their work. These can be used for assessment purposes and also for monitoring progression. Teachers assess the children's work against the learning objectives for their lessons and use the progression skills framework.

Teachers input data into a whole school assessment spreadsheet to assess Design & Technology at the end of the year. The Design and Technology subject leader keeps evidence of children's work in a portfolio.

Health and Safety

An important aspect of Design and Technology is the need to develop the children's awareness of the need to work safely and with due regard to the health and safety of themselves and others. Children will be shown how to use equipment correctly and will be given the opportunity to practice skills and techniques under supervision. Adults will support children when working with food. Adults ensure that the cookery area and utensils are cleaned after use.

Resources

Our school has a range of resources which are kept in several designated areas with school. Tools are regularly maintained and along with consumable resources, are replaced when necessary.

Review and evaluation procedures

The monitoring of the standards of children's work and of the quality of teaching in design and technology is the responsibility of the design and technology subject leader. The work of the subject leader also involves supporting colleagues in the teaching of design and technology, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. A curriculum review is made annually which reports on achievements and indicates areas for further improvement.