Lawnside Academy

Design and Technology Policy

1   Aims and objectives

Design and Technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems. Through the study of design and technology they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and Technology helps all children to become discriminating and informed consumers and potential innovators.

At Lawnside, our objectives in the teaching of Design and Technology are to:

- develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making.
- enable children to talk about how things work, and to draw and model their ideas.
- encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures.
- explore attitudes towards the made world and how we live and work within it.
- develop an understanding of technological processes, products, and their manufacture, and their contribution to our society.
- foster enjoyment, satisfaction and purpose in designing and making.
- understand and apply the principles of a healthy diet.
- understand where food comes from and the issues of seasonality.

2   Teaching and learning

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 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.

We recognise the fact that there are children of different abilities in all classes, and we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this by:

- setting tasks which are open-ended and can have a variety of responses;
- breaking tasks down into smaller steps and use questioning to assess and consolidate the children's understanding
- sometimes grouping children by ability, and setting different tasks to each ability group;
- providing tools and resources of different complexity, according to the ability of the child;

- using classroom assistants to support the work of individual children or groups of children.

3   **Design and Technology curriculum planning**
Design and Technology is a foundation subject in the National Curriculum. We use the national programmes of study as the basis for our curriculum planning and we have adapted this to the local context of our school in that we use the local environment and our topic plan as the starting point for certain aspects of our work.

Our curriculum planning is in three phases (long-term, medium-term and short-term). Our long-term plan maps the Design and Technology topics studied in each term during each key stage. The subject leader devises this plan in conjunction with teaching colleagues in each year group. In some cases, we combine the Design and Technology study with work in other subject areas, especially at Key Stage 1. In othercases, we arrange for the children to carry out an independent Design and Technology study.

Our medium-term plans give details of each unit of work for each term. The subject leader reviews these plans on a regular basis.

Each class teacher creates a plan for each lesson. These plans list specific learning objectives and expected outcomes for each lesson. The class teacher keeps these individual plans, and often discusses them with the Design and Technology subject leader on an informal basis.

We plan the topics in Design and Technology so that they build on prior learning. Children of all abilities have the opportunity to develop their skills and knowledge in each unit and, through planned progression built into the scheme of work, we offer them an increasing challenge as they move up the school.

4   **The Early Years Foundation Stage**
We teach Design and Technology in reception classes as an integral part of the topic work covered during the year. 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 increasing control.

5   **Contribution of Design and Technology to teaching in other curriculum areas**
English
Design and Technology contributes to the teaching of English in our school by providing valuable opportunities to reinforce their learning from English lessons and by encouraging children to ask and answer questions about the starting points for their work. The evaluation of products requires 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
The teaching of Design and Technology in our school contributes to children's mathematical understanding in a variety of ways. The children will measure accurately to the nearest mm. They will measure or weigh using measuring cups or

electronic scales.

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 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.

6   **Design and Technology and ICT**
Information and communication technology enhances our teaching of design and technology, wherever appropriate, in each key stage. This more than meets the statutory requirement for children to use ICT as part of their design and technology work in Key Stage 2. Children use software to enhance their skills in designing and making, and use draw-and-paint programs to model ideas. They research information through the internet and libraries of digital images.

7   **Design and Technology and inclusion**
At our school, we teach Design and Technology to all children, whatever their ability and individual needs. Design and Technology implements the school curriculum policy of providing a broad and balanced education to all children. Through our design and technology teaching, we provide learning opportunities that match the needs of children with learning difficulties, and we take into account the targets set for individual children in their Individual Provision Plans (IPPs).

We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this.

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. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels. This helps to ensure that our teaching is matched to the child's needs.

We enable all pupils to have access to the full range of activities involved in learning Design and Technology. Where children are to participate in activities

outside the classroom, such as a visit to a museum, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

8   Assessment

Teachers assess children's work in Design and Technology by observing them working during lessons. On completion of a piece of work, the teacher assesses the work and uses this information to plan future learning. Written or verbal feedback is given to the child to help guide his or her progress.

Children are encouraged to evaluate and assess their own work and that of others. This helps them to appreciate how they can improve their performance and what their targets should be for the future.

At the end of each unit of work we make a summary judgement of the work of each pupil in relation to the National Curriculum levels of attainment. We record attainment on an assessment grid, and we use this information to plan future work with that pupil.

This information also provides the basis for assessing the progress of the child across the year and forms part of the child's annual report to parents and carers. We pass this information on to the next teacher at the end of the year.

The subject leader keeps samples or photographs of the children's work in a portfolio which shows the expected level of achievement in Design and Technology in each year of the school.

9   Resources

We ensure that we have sufficient resources to be able to teach the Design and Technology programmes of study. Classrooms have a range of basic resources, with the more specialised equipment being kept in the Design and Technology cupboard. This equipment is accessible to children only under adult supervision.

10   Health and safety

The general teaching requirement for health and safety applies in this subject. We teach children how to follow proper procedures for the safe handling of tools and for food safety and hygiene.

11   Monitoring and review

The coordination and planning of the Design and Technology curriculum are the responsibility of the subject leader, who also:

- supports colleagues in their teaching, by keeping informed about current developments in Design and Technology and by providing a strategic lead and direction for this subject;
- gives the headteacher an annual summary report in which s/he evaluates the strengths and weaknesses in art and design, and indicates areas for further improvement.

The quality of teaching and learning in Design and Technology is monitored and evaluated by the headteacher as part of the school's agreed cycle of monitoring and evaluation.

This policy will be reviewed every three years or sooner if necessary.

Version	Date	Author	Notes on revision(s)
1	November 2018	C. Gower	New policy written for adoption
2	February 2019	C. Gower	Update from LLS to Lawnside Academy
3	October 2022	C.Gower	