1   Aims and objectives

1.1   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, practical 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.

1.2   The aims 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;

- to enable children talk about how things work, and to draw, model and adapt their ideas;

- to provide the opportunity for children to work with a range of materials, including wood and other resistant materials and begin to understand the qualities of these materials

- to encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;

- to explore attitudes towards the made 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 provide opportunities to use design technology skills across the curriculum

- to foster enjoyment, satisfaction and purpose in designing and making.

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2   Teaching and Learning

2.1   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.

2.2   In all classes there are children of differing ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- 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;
- grouping children by ability and setting different tasks for each group;
- providing a range of challenges through the provision of different resources;
- using additional adults to support the work of individual children or small groups and encouraging cooperation in group work

3   Design and technology curriculum planning

3.1   Design and technology is a foundation subject in the National Curriculum. We use the local circumstances of our school in that we use the local environment as the starting point for aspects of our work.

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3.2   We carry out the curriculum planning in design and technology in three phases: long-term, medium-term and short term planning. The long-term plan maps out the units covered in each term during the key stage. The design and technology subject leader works this out in conjunction with teaching colleagues in each year group.

3.3   We use medium term plans. These give details of each unit of work for each term. The subject leader reviews these plans on a regular basis.

3.4   We 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, so that the children are increasingly challenged as they move through the school.

4   The Foundation Stage

4.1   We 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 using senses, using a variety of construction kits, materials, tools and products, developing making skills and creative techniques and handling appropriate tools and construction material safely and with increasing control. ICT is also incorporated into the early years, including the use of programmable toys. The Foundation Stage also use the outdoor area to explore and experience the natural world; examining changes and making observations.

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4.2 We 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.

5 **Contribution of Design and Technology to teaching in other curriculum areas.**

5.1 **Literacy**

Design and 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. 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. Wherever possible questioning and discussion should be encouraged between pupil and adult and pupil and pupil.

5.2 **Information and communication technology (ICT)**

We use ICT to support design and technology when appropriate. Children use software to enhance their skills in designing and making, and use draw-and-paint programs to model ideas. They use databases to provide a range of information sources and CD-ROM's to gain access to images of people and environments. The children also use ICT to collect information and to present their designs through draw-and-paint programs.

5.3 **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 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.

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Use of the outdoor area helps children to learn respect for the natural environment, keeping it tidy and safe for wildlife to flourish.

5.4   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 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.   Teaching design and technology to children with special needs.

6.1   We teach design and technology to all children, whatever their ability.   Design and technology also forms part of our school curriculum, policy to provide a broad and balanced education to all children. 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 needs.

6.2   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, and 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.

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6.3 Intervention will lead to the creation of a pupil passport for children with special educational needs. This may include, as appropriate, specific targets relating to design and technology.

6.4 We enable 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, for example, a museum or factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

7. Assessment and recording

7.1 Assessment in the national curriculum allows us to consider each child's attainment and progress and expected levels. Teachers assess children's work in design and technology by making assessments as they observe them working during lessons. They 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 National Curriculum levels of attainment. In the Foundation Stage photographs are taken of children's work and used in the Foundation Stage profile as evidence. Teachers then use the levels that they record to plan the future work of each child and to make an annual assessment of progress for each child, as part of the annual report to parents. Each teacher passes this information on to the next teacher at the end of each year to ensure smooth transition between year groups.

8. Resources

8.1 Our 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 design and technology store located in the storeroom.

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9. Health and Safety

9.1 The general teaching requirement for health and safety applies in this subject. We teach children how to follow proper procedures for food safety and hygiene.

10 Monitoring and review

10.1 The monitoring of the standards of children's work and of the quality of teaching in design and technology is undertaken by the 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. The design and technology subject leader gives the Headteacher an annual report in which they evaluate the strength and weaknesses in the subject and indicates areas for further improvement.

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