

Putnoe Primary School

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 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 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 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 foster enjoyment, satisfaction and purpose in designing and making.
- To enable children to make healthy eating choices.

2 Teaching and learning style

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.

3 Design and technology curriculum planning

3.1 Design and technology is a foundation subject in the National Curriculum. Our school uses the Data Scheme of Work as the basis for its curriculum planning in design and technology.

3.2 We carry out the curriculum planning in design and technology in three phases: long-term, medium-term and short-term. The long-term plan maps out the units covered in each term in each year group and plan for a mastery curriculum.

3.3 Our medium-term plans have been adopted from Data Scheme of Work which identifies learning objectives and outcomes for each unit. This ensures an appropriate balance and distribution of work across each term.

3.4 Class teachers complete a plan for each design and technology lesson. These list the specific learning objectives for each lesson and detail how the lessons are to be taught. The class teacher keeps these individual plans and often discusses them with colleagues on an informal basis.

3.5 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 into the scheme of work, so that the children are increasingly challenged as they move through the school.

3.6 Within DT we plan for some lessons a year to be linked to Global Learning where children learn more about the world around them.

3.7 When planning, the 10 principles to achieving high performance and mastery are used.

3.8 The 4 r's of resilience, resourcefulness, reflectiveness and reciprocity are incorporated into the Dt planning.

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 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.

- 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 English

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.

5.2 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 they also learn through their understanding of personal hygiene, how to prevent disease from spreading when working with food.

5.3 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 Teaching design and technology to children with special educational needs and the more able

- 6.1 **At our school we teach design and technology to all children, whatever their ability. Design and technology forms part of the 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 different needs. Assessment against the National Curriculum expected outcomes allows us to consider each child's attainment and progress against expected levels.

- 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, 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.
- 6.3 More Able and talented pupils are nominated over and above other children for enrichment activities. The needs of more able and talented children are catered for specifically on short term planning and through IEP's which support individual learning.
- 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 trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

7. Well-being

The National Curriculum (2014) states that high quality DT education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

At Putnoe Primary School it is important that the wellbeing of our pupils are met. The foundations for long term wellbeing contributes to children's mental, emotional, economic and physical development. Making sure these foundations are in place will enable children to learn to respond positively to challenges, be enterprising and handle risk and to develop self-confidence and physical capabilities.

Design Technology contributes to children's mental, emotional, economic and physical development by:

- * Encourage children to participate in team building activities
- * Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.
- * Children become aware of how to assess risks before using equipment.
- * Through food technology they learn about preparing healthy food and making healthy choices.

8 Assessment and recording

- 8.1 Teachers assess children's work in design and technology by making formative and summative 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. As Objectives are met these are recorded on Target Tracker which gives an appropriate stepped level for that child. Teachers then use the statements to plan the future work of each child. A variety of AFL techniques are used to allow children to assess their own work and that of their peers against the intended outcomes.

9 Resources

9.1 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 a purpose built art/dt room.

10 Extra Curricular Activities

10.1 In addition to the curriculum the school provide opportunities for pupils to participate in additional activities and clubs in order to extend their Design and Technology skills. Able and talented pupils are given first priority for enrichment activities and participation in workshops lead by outside agencies.

11 Health and safety

11.1 The general teaching requirement for health and safety applies in this subject. We teach children how to follow proper procedures for use of all equipment including craft knives, scissor and for food safety and hygiene. Risk assessments have been completed for the hazardous equipment used.

12 Monitoring and review

12.1 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 Design and Technology 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 is responsible for giving the headteacher an annual summary report in which they evaluate the strengths and areas of development in the subject and indicates areas for further improvement.

Signed:

Date: