DESIGN TECHNOLOGY POLICY

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Headteacher……………………………………………………………… **Date**…………………………..

Chair of Governors……………………………………………………… **Date**………………………….

Carlton Colville Primary School
Design and Technology Policy

Aims and Objectives

Design and technology is essentially a practical subject that allows children to think imaginatively and creatively and to become more autonomous and effective problem solvers, both as individuals and as part of a team. Our aim is to provide children with a rich and enjoyable experience of design and technology, in which they can acquire and develop their own designing and making skills in line with our school's identified "curriculum drivers" and learning skills initiative.

The objectives in teaching 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 think and talk about how things work, and to draw and model their ideas;
✓ To encourage children to select appropriate tools and techniques to make quality products, whilst following safe procedures;
✓ To use and explore a range of materials, resources and equipment;
✓ To explore attitudes towards the made world and how we live and work within it;
✓ To develop an understanding of technological processes, products, their manufacture and their contribution to our society;
✓ To use the internet to explore ideas and already made products;
✓ To foster enjoyment, satisfaction and purpose in designing and making things;
✓ To explore and understand the place of design and technology in the wider world.

Teaching and Learning Style

Through a flexible curriculum, 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 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 computers.

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;
- ✓ Grouping children by ability and setting different tasks for each group;
- ✓ 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 our planning is cross-curricular and linked to the specific curriculum of our school. We might use the local environment or a current theme or topic as the basis for the required skills which are taught as part of the flexible curriculum.

Curriculum planning takes place in 2 phases – long term and medium/short term.
- ✓ Long term planning maps out the visual elements, the range of media and chosen materials and the processes to be developed during each year group. The long term plan will ensure an appropriate balance and distribution of work across each term.
- ✓ Medium/short term planning encompasses exploring and developing ideas; investigating and making; accessing and appreciating the work of craftspeople and evaluating and developing work and knowledge and understanding. In our school, medium term planning highlights the specific learning objectives and expected outcomes of each project.

Activities in design and technology are planned so that they build on prior learning. 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.

As design and technology is one of the STEM subjects (Science, Technology, Engineering and Maths) we also aim to use the expertise and experience of STEM Ambassadors where possible to enhance our curriculum and to help our children understand the place of design and technology in the wider world.

Early Years Foundation Stage

We encourage the development of skills, knowledge and understanding that help Nursery and Reception children make sense of their world. We relate this development to the objectives set out in the "Early Years Foundation Stage" (Practice Guidance), which underpins the curriculum planning for children aged from birth 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 materials safely and with increasing control.

We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking, discussion and decision making. These activities take place both indoors and outdoors, and are designed to arouse the children's interest and curiosity.

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, sellotape, 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.

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.

In key stage 1, children will be taught to:

- ✓ Use the basic principles of a healthy and varied diet to prepare dishes;
- ✓ Understand where food comes from.

In key stage 2, children will be taught to:

- ✓ Understand and apply the principles of a healthy and varied diet;
- ✓ Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques;
- ✓ Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Cross-Curricular Links

Literacy - Design and Technology contributes to the teaching of Literacy by providing valuable opportunities to reinforce prior learning. Discussion, drama and role-play are important ways 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, children learn to justify their own views and clarify their design ideas.

Numeracy – In design and technology, children learn to measure and use equipment correctly, generate nets of shapes in order to create packaging and weigh and measure accurately. They will also learn about size and shape and make "real" use of their mathematical knowledge in order to be creative and practical in their designs and modelling.

Science – Science helps in design and technology, looking at and drawing electrical circuits. It also helps children to think about using materials to create structures which can withstand a force.

Computing - enhances the teaching of design and technology, wherever appropriate, in all key stages. Children may use software to enhance their skills in designing and making things. Younger children are able to use simple software to enhance their learning. Older children use a control program to control mechanisms and to get them to move in different ways, either in a virtual world or via an infrared connection to working models. The children also use Computing to collect information and to present their designs through a range of design and presentation software.

Personal, Social and Emotional Education (PSHE) – Design and technology contributes to the teaching of PSHE , encouraging 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 set targets and meet deadlines. They will also learn how to prevent disease from spreading and about personal hygiene when working with food.

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 enable all pupils to make progress. 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 and differentiation – so that we can take some additional or different action to enable the child to learn more effectively. Regular assessment allows us to consider each child's attainment and progress against expected levels. This helps ensure that our teaching is matched to the child's needs.

Assessment for Learning

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 objectives 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 pupils' level of attainment and progress against DT "milestones" which exemplify expectations at the end of Year 2, Year 4 and Year 6 and will inform 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. During the Foundation Stage children will be assessed as part of Understanding the World against the development matters statements and early learning goals.

The subject leader keeps evidence of the children's work in a portfolio. This demonstrates the expected level of achievement in design and technology in each year of the school.

Resources

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. This is accessible to children only under adult supervision.

Health and Safety

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

Monitoring and Review

The DT Subject Leader monitors the quality of teaching/learning in DT across the school. The subject leader keeps a portfolio of evidence and reviews design and technology when there is a priority highlighted on the School Development Plan.

This policy will be reviewed every three years.