

Design and Technology Policy

Gagle Brook Primary and Nursery School

Design and Technology Intent

At Gagle Brook Primary and Nursery, we believe that Design and Technology prepares children to take part in the development of tomorrow's rapidly changing world. It encourages children to be creative thinkers and allows them to become more focused on what makes a successful product and more imaginative in how a product can be made or improved. A high-quality design education should engage, inspire, and challenge pupils, equipping them with the knowledge and skills to experiment, to invent and create their own works of art, craft and design.

As pupils progress, they should be able to think critically and develop a rigorous understanding of art and design. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. All of the children at Gagle Brook Primary School are to be encouraged to enjoy and appreciate Art, to respond and express themselves creatively to a variety of stimuli.

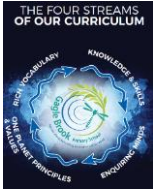
The aims of design and technology teaching are to enable children to:

- Develop their understanding of the designing and making process, the need to evaluate existing ideas and products and an ability to work through the DT process confidently
- Gain a knowledge and understanding of materials, components, controls and structures
- Have opportunities to investigate, disassemble and evaluate a range of simple products which are found in everyday life
- Draw upon knowledge and skills from other curriculum areas, particularly mathematics, science and art
- Experience a sense of achievement, having worked through the design processes that lead to the finished article
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Teaching and learning

At Gagle Brook Primary and Nursery School, we ensure that our Design Technology (DT) curriculum is planned for and delivered using the six principles of learning providing rich opportunities for challenge, explanation, modelling, practice, questioning and feedback. We have high expectations for all pupils, all of the time. We encourage students to be resilient, question, have time to practice a skill and we support them in responding to modelling, feedback and critique so they can improve their work and learning behaviours. We like them to be inspired by the excellent work of others. Challenge is the key driver of everything we do.

At Gagle Brook, we make design technology an enjoyable learning experience. 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. Children are encouraged to generate ideas through group discussions, assembling and rearranging materials and components and evaluating products. Children have the opportunity to work individually, in pairs, in groups and also whole class where appropriate. When evaluating their own work, children will be



encouraged to refer to the design criteria established in the design brief as their basis for deciding on how good their product is. They will be encouraged to identify strengths and weaknesses in a positive way. They have the opportunity to use a wide range of materials and resources, including Computing.

Equal Opportunities

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

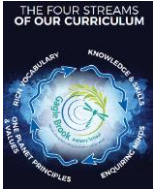
- Taking the time to develop and express ideas by all children
- Setting common tasks which are open-ended and can have a variety of responses;
- Setting tasks of increasing difficulty (not all children complete all tasks);
- Using classroom assistants to support the work of individuals or groups of children
- Providing children with opportunity and freedom to practice and express their feelings through art and design

Design and Technology curriculum planning

Design and technology at Gagle Brook Primary and Nursery School is taught both as a discrete subject and through cross curricular topics based on a 'big question' approach. We plan our topics around six open ended topic questions linking to a range of curriculum areas. Our medium-term plans focus on key objectives and skills for each year group. These plans define what we will teach and ensure an appropriate balance and distribution of work across each term. The design and technology subject leader is responsible for monitoring and reviewing these plans. We plan the activities in design and technology so that they build upon the prior learning of the children. While we give children of all abilities opportunity to develop their skills, knowledge and understanding, we also build planned progression into the scheme of work, so that there is an increasing challenge for the children as they move up through the school.

Early Years

As nursery and reception are 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 EYFS (Early Years Foundation Stage). These underpin the curriculum planning for children aged three to five. Children in the early years are provided with rich opportunities to design, adapt and evaluate through the different areas of learning. Through an engaging indoor and outdoor learning environment inclusive of design centres and construction zones, the development of skills, knowledge and understanding help nursery and reception children make sense of their world. 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.



KS1

At Key Stage 1 pupils use a range of materials, including ICT, textiles, food and items that can be assembled to make products. Children will learn the skills needed to engage in the process of designing and making. From this, children will have the opportunity to design functional products based on a criteria, select from a wide range of tools and equipment to perform practical tasks, and evaluate their ideas and products against a design criteria. Teaching Assistants and adult helpers will be provided with specific guidance on ways in which they are to work with children, the degree of independence that the children should be given and the specific aims and objectives for any activity that they are to oversee. The work undertaken will be practical, enjoyable and relevant for all children. Children will have opportunities to experience textile and food technology at least once during each key stage. Children will also learn about technical knowledge required within design technology, based mainly through discussion about building structures and the use of different mechanisms.

KS2

At Key Stage 2 pupils use a range of materials including ICT, stiff and flexible sheet materials, textiles, mouldable materials, food, electrical and mechanical components. Children will use research and develop design criteria to inform the design of the innovative products fit for purpose. When making products children will have access to a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. When evaluating, children will be encouraged to evaluate their own ideas against their own design criteria as well as consider the views of others to improve their work. Teaching Assistants and adult helpers will be provided with specific guidance on ways in which they are to work with children, the degree of independence that the children should be given and the specific aims and objectives for any activity that they are to oversee. The work undertaken will be practical, enjoyable and relevant for all children. Children will have opportunities to experience textile and food technology at least once during each key stage. Children will also learn about technical knowledge required within design technology, having the opportunity to apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

The 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 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.

Computing

We use Computing to support Design and Technology teaching when appropriate. Children use software to enhance their skills in designing and making, and use draw-and-paint programs to model ideas and make repeating patterns. The children also use ICT to collect information and to present their designs through draw-and-paint programs. We make cross-curricular links where possible.



Personal, social and health education (PSHE) relationships 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.

Teaching design and technology to children with special educational needs

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 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.

Interventions may be in place to support children with specific targets relating to design and technology such as fine and gross motor skills.

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.

Assessment and recording

Teachers assess children's work in design and technology by making assessments as they observe them working during lessons. They make an annual assessment of progress for each child, as part of the annual report to parents.

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 art and design store.



Health and Safety

The general teaching requirement for health and safety applies in this subject. The teacher is responsible for the Health and Safety of themselves, teaching assistants and pupils within their class. Children are taught how to follow proper procedures for food safety and hygiene. Pupils are encouraged to collect and return tools and equipment safely, only move around the classroom when necessary and wear safety equipment wherever necessary. Direct safety instructions will also be given to children each time they undertake design and technology activity.

Monitoring and review

The design and technology curriculum champion team are responsible for the standard of children's work and for the quality of teaching in design and technology. The work of this team 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 curriculum champion team are responsible for giving the senior leadership team an annual impact plan on which she/he indicates areas for further improvement and the actions she/he intends to take to achieve them.

Signed: Mrs E Holloway

Date: July 2022

Review date: July 2024