



At Ashfield Valley we care for and value every child in a nurturing, inclusive environment.

All members of our school community will work hard to ensure that every pupil achieves their full potential and has the opportunity to shine.

Design & Technology Policy

Reviewed: September 2022

Date of next review:
September 2023

Rationale

At Ashfield valley, we have a clear focus surrounding the teaching and learning of Design and Technology to ensure that every child is an interdependent designer and creator. Pupils are able to explore and investigate, design, make and evaluate processes. The teaching and learning of Design and Technology will enable our pupils to become resilient risk takers. We will build engineers who can confidently apply their knowledge and use their skills to problem solve. Pupils will feel confident to select and use a range of materials, building and applying their knowledge and understanding of skills to create functional, practical products with a desire to succeed in a technological world, embedding skills for life, preparing them for their next stage in education, employment and a future of possibilities.

This policy details the provision we make for the learning and teaching of Design and Technology at our school and in particular:

- The importance the school attaches to first class teaching and learning opportunities in Design and Technology as an entitlement to all its pupils;
- To provide support and reference to staff to ensure a consistency with both quality and approach;
- To highlight how the curriculum is ambitious and designed to give all learners the knowledge, cultural capital and coherently planned sequenced learning opportunities;
- Identify how the teaching and learning of Design and Technology will embed fluency resulting in pupils knowing more and remembering more, impacting on their long- term memory;
- How we have organised the Design and Technology curriculum, developed its outcomes and how this is monitored and assessed;
- How summative and formative assessment is used to assess the pupils progress in and across key stages against objectives defined for individual subject outcomes;
- To emphasise that high quality teaching and learning of Design and Technology is the responsibility of all staff.

Purpose

The purposes to this policy are to:

- Highlight the importance and value our school attaches to pupils learning Design and Technology, ensuring that pupils develop a wider range of knowledge and skills preparing them for their next stage in education and a future of possibilities;
- Recognise and establish an entitlement to learning and teaching in Design and Technology for all our pupils as a statutory educational requirement;
- Make explicit our expectations in terms of subject outcomes and performance for pupils in

Design and Technology as they progress through the school;

- Ensure continuity and progression in terms of subject knowledge, skills application and the development of appropriate attitudes and values;
- Ensure that all teachers are following the same procedure when teaching, i.e. focusing on key skills, language and terminology;
- Underpin the elements to ensure we allow learners to develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world;
- This document should support staff and clarify any uncertainties meaning that there will not be any barriers to teaching and learning;
- Clarify how we will assess, record and communicate the performance of our pupils in Design and Technology as they progress through the school;
- Outline the approach to the teaching and learning of Design and Technology that our school has adopted.

The value of Design and Technology within our curriculum

Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

National Curriculum (2013).

Alongside The National Curriculum, the new programmes of study highlight that the designing and making process is still at the heart of Design and Technology. Additionally, doing so using a broad range of materials and the evaluation of own and others ideas and products.

Ashfield Valley believes that developing a love for learning in Design and Technology is fundamental to our pupils' development in order to prepare them for their next phase in education. We do this by providing pupils with creative, inspiring experiences and embed skills to ensure that pupils have the ability to succeed in a technological world. Our curriculum extends beyond the academic, technical or vocational. This in turn:

- Provides for learners' broader development, enabling them to develop and discover their interests and talents;
- Allows pupils to become confident risk takers and build resilience within Design and Technology.
- Through maintaining positive and well-trained staff we will continue to develop learners who are well equipped and prepared for their next step in education;

- Ensures that pupils are exposed to ambitious intentions;
- Allows pupils to explore attitudes towards the world and how we live and work within it;
- Ensure pupils develop an understanding of technological processes, products and their manufacture, and their contribution to our society;
- Allow pupils to foster enjoyment, satisfaction and purpose in designing and making,
- Provides learners with a range of projects which will involve using a variety of skills and materials, therefore clearly supporting the intent of a coherently planned curriculum, preparing pupils for future learning and employment.

Intent

Ashfield Valley aims to provide pupils with a broad variety of opportunities across the wider curriculum to become independent designers and creators. We achieve this by understanding what our school and pupils need to become better at Design and Technology. Our curriculum allows us to plan and deliver well-structured lessons with clear progression across key stages. The appropriate level of challenge supports our carefully thought out, purposeful topics that allow pupils to work as inventors and creators in a more rigorous manner as they progress through school, thus building risk takers and engineers, embedding confidence and creativity into all pupils. Furthermore, encouraging our pupils to have high expectations of their own opportunities and prepare them for a future of possibilities.

Implementation

Design and Technology is an inspiring, rigorous and practical subject. At our school, learning is facilitated through using creativity and imagination. Pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' need, wants and values. Our curriculum provides pupils with a broad range of subject knowledge and pupils draw on disciplines such as mathematics, science, engineering, computing and art. We encourage pupils to take risks, becoming resourceful, innovative, enterprising pupils who are able to appreciate human creativity and achievement, whilst learning how they can contribute towards building a better, ever-changing world.

Our Design and Technology curriculum has been designed by exploring the expectations of the National Curriculum and applying this guidance to the context, barriers and needs of the school and its pupils. We use the DT Association Design and Technology scheme of work as the basis for our planning.

The content of the Design and Technology curriculum at Ashfield Valley exposes learners to five categorised areas: Structures, Mechanisms, Electrical Systems, Cooking and Nutrition and Textiles. These areas are further explained throughout this policy. The five categorised areas support pupils' development and progress across this subject area as pupils learn through a variety of creative and practical activities and experiences. There is a clear progression of skills throughout Design and Technology as our units of work are chosen carefully and purposefully so that they build on pupils' prior learning. Teachers ensure that

all abilities are given the opportunity to develop their skills, knowledge and understanding alongside an increasing challenge for pupils as they move up through the school.

To ensure that the teaching and learning of Design and Technology is consistent across school, the subject leader monitors evidence through monitoring, observing and pupil voice.

EYFS –

The Early Years Foundation Stage is fundamental to a child's development. At Ashfield valley, we expose pupils to a range of materials, encouraging pupils to build, create and explore. Allowing pupils in the foundation stage of their learning to make, change and design things for themselves enables pupils to gain knowledge and understanding of the world which they live in. Pupils in our EYFS setting learn through first hand experiences where they explore, observe, solve problems, think critically, make decisions and talk about why they have made their decisions. These experiences and activities, indoors and outdoors, attract the pupils' interest and curiosity. Learners investigate in a rich environment which values creativity, using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely with increasing control. Pupils further experiment through design, with colour and materials, representing their own ideas, thoughts and feelings through Design and Technology.

KS1

Within Key Stage 1, we ensure that our expectations enable all pupils to establish and begin to develop the knowledge, understanding and skills to become a successful designer and creator. Structures, mechanisms, cooking and nutrition and textiles act as focus topics throughout this key stage, allowing pupils to build upon their knowledge, understanding and skills as they move through school. Each focus topic is purposeful and engaging. There is a clear, structured application of skills throughout these topics as pupils' progress through the processes of Design and Technology. Pupils investigate, design and make their end product. Pupils create purposeful, functional, appealing products for themselves and other users based on design criteria, beginning to select from a range of tools and materials building a bank of technical knowledge. Teachers encourage pupils to evaluate throughout the whole process, although particularly within Key Stage 1 this is also a focus after they have made their product. Pupils are encouraged to think and discuss what went well, what they would change, how they would change this and why. Pupils think creatively and sensibly whilst referring to technological knowledge throughout.

KS2

Within Key Stage 2, pupils build upon their prior knowledge, understanding and skills taught previously. As opposed to four key elements, within Key Stage 2 our focus topics focus on the five key elements of Design and Technology: Structures, mechanisms, electrical systems, cooking and nutrition and textiles. In addition to our purposeful focus

topics, these elements of Design and Technology allow pupils to research and develop design criteria to inform the design of innovative, functional and appealing products. These products are designed carefully and purposefully aimed at particular individuals or groups. Pupils generate, develop, model and communicate their ideas through discussion, and a range of design strategies so that in turn they can select and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately to meet their end product. Pupils use their evaluating skills to investigate, analyse and consistently review their ideas and products against their own design criteria, considering the views of others to improve their work. As a school, we strongly focus on 'Why this, why now?' throughout the evaluative process of Design and Technology, where together we discuss this objective thoroughly. The technological knowledge that pupils build throughout this process allow them to strengthen their creative designs and products. By the end of Key Stage 2 we aim for pupils to understand and confidently discuss how key events and individuals in Design and Technology have helped to shape the world.

Inclusion, equality of opportunity and differentiation

Design and Technology is an integral and statutory element of a pupil's entitlement to learning and at our school we ensure that all pupils can engage with Design and Technology learning and develop as young, resilient risk takers and creators. Design and Technology forms part of our school's fundamental value, to provide a broad and balanced education to all pupils. At Ashfield Valley, every child is given access to the Design and Technology curriculum irrespective of their race, cultural background, gender, sexual identity, religion, level of intellectual ability or physical and emotional circumstances.

Design and technology is a practical and valuable subject. It enables pupils and young people to actively contribute to the creativity, culture, wealth and well-being of themselves, their community and their nation. It teaches how to take risks and so become more resourceful, innovative, enterprising and capable. Mutual respect is highly demonstrated throughout Design and Technology, where pupils communicate with, praise and support each other. Learners appreciate how engineers have shaped the world that we live in today regardless of their ethnicity or background and this is praised within our teaching and learning.

Ensuring differentiation is a fundamental and core element of inclusion. As such we plan and resource our learning, in line with our whole school policies, to enable all pupils to make good and sustained progress in Design and Technology, including those with special educational needs, those with disabilities and those identified as more able and those with English as an additional language. In our differentiation planning we take due regard of factors such as classroom organisation, learning materials and the learning environment.

Connecting Design and Technology to other areas of the Curriculum

In our planning we have made meaningful links between Design and Technology and other subject areas of the National Curriculum where incorporating content and perspectives

adds value to and extends the technological understanding of our pupils. Making such links is important because it highlights to pupils the interconnectedness and interdependence of the real world but when making such connections we must maintain subject rigor and appropriate expectations in Design and Technology for each stage of learning. For example, many of our Design and Technology units provide the opportunity for pupils to use their mathematical skills in real life situations and contexts such as solving problems, measuring, investigating shape and space and handling data. Or within science where pupils work with a range of materials such as; fabric and card, or work with electrical circuits, switches and food products. Although it is important that high standards of mathematics and science is applied in order to create a successful end product, equally, appropriately high - standards of Design and Technology must be applied in order to make sustainable attainment.

Impact-Expectations of outcomes

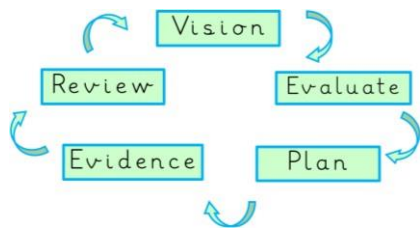
At our school an important objective is for all pupils to develop as young independent designers and creators. We achieve this by challenging and supporting our pupils to work creatively in a more rigorous manner as they progress through the school. We aim to develop pupil's skills and knowledge in design, structures, mechanisms, electrical control and a range of materials, including food. We encourage learners' creativity and encourage them to think about important issues within the society and world that we live in.

Assessment and reporting-

Teachers assess pupils' work in Design and Technology by making assessments as they observe them working during lessons. Teachers collect examples of the pupils' work and create a booklet of evidence. All pupils' work is marked and evidenced within an individual booklet. The booklets of work are forwarded to the subject leader for monitoring termly. Evidence for Design and Technology is both on paper and electronic e.g. photos of final products.

The Design and Technology subject leader keeps evidence of the selection of pupils work at different ability levels, forwarded by class teachers, in a portfolio at the end of each topic. This demonstrates what the expected level of achievement is in Design and Technology throughout each year in the school. Teachers meet regularly to review individual evidence of pupils' work and to discuss future next steps in learning.

Monitoring and Evaluation and the role of the subject leader-



The primary role of the Subject Leader is to ensure that there is a clear vision and expectation of what is aiming to be achieved. At Ashfield Valley we have clear, relevant strategies in order to succeed. Monitoring and observations will provide evidence so that our Design and Technology curriculum teaching and learning and outcomes for pupils can be reviewed appropriately.

All teachers at our school are responsible for monitoring standards in Design and Technology but the Design and Technology subject leader, under the direction of the Headteacher, takes a lead in this. Monitoring activities are planned across the year and form part of the Design and Technology leader's leadership schedule. In summary, these include:

- analysing samples of pupils' Design and Technology work to moderate standards (attainment and progress against outcomes and end of stage performance descriptors) to ensure consistency;
- Lesson observations and Learning walks to ensure that learning and teaching is appropriately engaging and challenging and that the anticipated subject progress is being made by the pupils;
- Speaking to pupils about their Design and Technology lessons and what they know and remember about the subject;
- At least twice per year the subject leader provides feedback to staff about the quality of Design and Technology being taught and leads a discussion on standards being achieved within the subject;
- In collaboration with the Headteacher, Governors and teaching colleagues the subject leader drafts and finalises a Design and Technology Action Plan which is informed by the School Development Plan;

The Design and Technology leader has the responsibility to take a lead in developing Design and Technology further across the school within the school's development plan; monitoring the effectiveness of teaching and learning; and the use of resources. Teachers and educational support staff can expect support from the Design and Technology leader arising from targets identified in the school improvement plan.

To develop staff confidence and competence in teaching Design and Technology the leader will:

- Attend subject professional development opportunities as they arise and in the context of the priorities of the whole School Development Plan together with the Design and Technology Action Plan;
- Identify and source staff training needs arising;

- Arrange for relevant advice and information from professional development programmes, including courses, to be disseminated;
- Where necessary lead (or arrange) school-based professional development meetings for colleagues;
- Ensure that wider opportunities are planned to enrich the Design and Technology curriculum.