Usworth Colliery Primary School DT Curriculum Narrative

Usworth Colliery Primary School Curriculum Vision

Enjoy achieving together…to be the best that we can be!

At Usworth Colliery, we have high expectations and aspirations for all. We pride ourselves on providing a safe, happy and healthy environment which supports our children to become confident, caring and independent learners. As a highly inclusive school, we support all our learners to access an education pathway that supports them to build on their starting points, considers their social and emotional needs and challenges them to thrive.

Our ethos and core values, along with our engaging curriculum, prepares our children for modern day life and their next stage of learning. We aim to deliver a curriculum that supports our children to be ready for the real world with opportunities to problem solve, develop resilience, be inspired, curious and creative and develop aspirations for their futures. We are determined that our children will make strong progress regardless of their starting points through a well sequenced, broad and balanced curriculum. Oracy development is at the heart of the entire curriculum: children use key stem sentences to develop language structures and progression is designed across the curriculum in the Physical, Linguistic, Cognitive and Social & Emotional strands. Lessons are crafted to support pupils to build on prior knowledge, revisit key learning, practise key skills and make links, to help them learn more and remember more.

We actively encourage respectful, positive relationships for all and promote British Values to maintain a strong whole school community.

Safety, Resilience, Care, Aspiration

DT INTENT

At Usworth Colliery we understand that design and technology is an inspiring, rigorous and practical subject. We hope the children will learn to take risks, be resourceful and creative through the technological experiences we provide. Design and technology at Usworth Colliery, encourages pupils to use their knowledge from various other subjects such as mathematics, science, computing and art to develop their curiosity within this ever-evolving technological world. Children's resilience is encouraged through the use of designing and making their projects. Our children will be given opportunities to work collaboratively with their peers to develop their design and technology skills with the support of one another and adults within their setting.

The children will gain a broad range of knowledge and experience by engaging in projects ranging from food, electrical, mechanical and structural tasks. Each project will be tailored to engage pupils to build their knowledge in many areas of design and technology which will equip them for their futures outside of education. We hope Design and Technology at Usworth Colliery will inspire children to become leaders in the subject. Leaders who will move on to develop exciting projects of their own which will be essential to the contribution to the creativity, culture, wealth and well-being of the nation.

Here at Usworth we strive to deliver exciting, engaging and projects where they children can use their creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts. While going through the design and making process the children are challenged to consider their own and others' needs, wants and values for the product.

Each project will develop the creative, technical and practical expertise needed to confidently perform everyday tasks in the outside world. As well as building their knowledge, understanding and skills to enable them to design and make high-quality prototypes and products for a wide range of users. Children will become flexible thinkers through the use of evaluation, critique and testing of their ideas and products and the work of their peers. Food technology will facilitate the children's understanding of the principles of nutrition and their cooking skills to become competent in some of the basic skills that will allow them to be applied in the wider community.

In the Early Years Foundation Stage, Design and Technology forms part of the 'Expressive Arts and Design' category. Through daily continuous provision, our children will be provided with a multitude of opportunities to explore and develop their early design and technology skills. The daily, engaging tasks provided will enable our children to build on their previous learning and exploration, as well as beginning to refine and develop their skills. Collaborative learning is encouraged through child-initiated learning and is the platform for our children to create and share their ideas with their peers as they investigate a variety of resources and tools. Our staff also encourage Design and Technology with an adult-led approach, incorporating the projects, designed with EYFS in mind, that encourage our children to reflect and discuss their ideas. It also allows for discussion and problem solving as a group whilst providing a range of tools and materials to discover and explore. All of the skills our children are provided and encouraged with, will support them in their progression into KS1, where the foundation of these skills will be further built upon and developed.

We INTEND that our curriculum will:

Develop control when using a variety of tools.	Children can use a range of tools when cutting, shaping and joining a variety of materials working with more accuracy as the curriculum progresses.
Ensure previous learning is embedded, taking individual starting points into account.	Children will revisit and consolidate skills to allow them to build on previous learning from a position of familiarity. Revisit previous projects and discuss how this links to the current task.
Develop perseverance to encountering errors and problems.	Children to be given opportunity to explore and experiment to solve problems and extend the task. Children to be given the opportunity to share discoveries with their peers via class discussion.
Create transferable skills	Problem solving skills or breaking down steps of a task has direct links with other curriculum areas (e.g. maths) but are also used in preparation for 'real world' and adulthood to jobs, links to many areas
Creative	Allows opportunities for children to 'break the rules' and express personality free of judgement which, in turn, will support pupil's resilience and confidence.

DT IMPLEMENTATION

Design and Technology is taught as a stand-alone subject during PPA by 2 PPA teachers. Within Design and Technology, children follow a four-step process - explore, design, make, and evaluate. Projects are designed to be progressive allowing the opportunity to refine fundamental skills before learning new ones. Each year group complete a termly project focusing on one or more of the following strands: Food & Nutrition, Mechanisms, Structures, Textiles and Electronics. Skills based sessions are also incorporated alongside full projects to meet specific objectives from the National Curriculum e.g. exploded diagrams & gears. Pupils use a variety of methods (pattern pieces, examples, internet research) to exploring existing, real-life products which encourages them to learn how things function encourages children to analyse, critique, and ask questions in order to examine ideas and design their own products. Pupils will create and follow design briefs, develop an understanding of numerous occupations within the design and technology sector. Pupils work as a team to solve problems during the design and make process, investigating different approaches to achieving the desired outcome. Children's resilience will be challenged during the 'making' process as they begin to break down the steps for production with an increasing level of independence. During the project's final stages, children will be given the opportunity to review the final result, ensuring that they reflect on the design brief and the desires of the consumer in upper KS2. In EYFS, Design and Technology forms part of the 'Expressive Arts and Design' category. Through daily continuous provision, children are provided with opportunities to explore and develop their early design and technology skills. The daily tasks provided will enable our children to build on their previous learning and exploration, as well as beginning to refine and develop their skills. Collaborative learning is encouraged through child-initiated learning and is the platform for our children to create and share their ideas with their peers as they investigate a variety of resources and tools. Our staff also encourage Design and Technology with an adult-led approach, incorporating the projects, designed with EYFS in mind, that encourage our children to reflect and discuss their ideas. It also allows for discussion and problem solving as a group whilst providing a range of tools and materials to discover and explore. All of the skills our children are provided and encouraged with, will support them in their progression into KS1, where the foundation of these skills will be further built upon and developed. Thrive & Red Base provisions focus on the strands above by consolidating a reduced focus on key skills within the wider context of other lessons in the curriculum (e.g. cutting skills, baking). Yellow & Blue Base complete simplified and/or scaffolded versions of selected projects from KS1 or lower KS2 that are tailored to their ability and allow children experience of each strand. Some children from these provisions also access the subject with their mainstream class.

Real-world Opportunities:	Big ideas:
Designing to meet audience need (upper KS2) Food hygiene and cookery Sewing skills Understanding how to join materials Problem solving skills Evaluation skills Engineering skills Health and safety skills	**Explore:** Pupils explore existing, real-life products looking at how things function by analysing, critiquing, and questioning. **Design:** Pupils create and follow design criteria to create their own ideas and adapt ideas from existing products. **Make:** Pupils practice and develop skills in a variety of disciplines including mechanical systems, building structures, textiles, computing, electrical systems as well as food and nutrition to create products with clear purposes. **Evaluation:** Pupils look at existing products, their own projects and the work of others and identify aspects which could be copied, modified or extended.

DT IMPACT

DT evidence is compiled throughout all four stages of production in floor books and through photographic and video evidence collected on the Shared drive. Subject coordinators work closely monitor implementation of the subject throughout different strands via regular meetings, lesson observation and floor book analysis. Two teachers delivering the subject across school allows close collaborative working and the opportunity to see the progression and application of vocabulary. Progressive projects, that allow children to build on existing skills, are now in place (as of 2023) meaning that children gradually gain confidence in their ideas, recognising that no matter where they begin, they can succeed. Teachers direct children with key vocabulary for each topic (documented in unit planning), encouraging its use whenever necessary. They build strong subject-specific vocabulary as the subject progresses, allowing them to properly understand the subject content and begin to organise and connect their previous learning. In conjunction with ICT, pupils will also explore how technology has shaped the world they live in today and begin to verbalise possible future careers and interests.

The IMPACT of our curriculum will create pupils who are:	
Curious	Children will become analytical thinkers who wish to learn about the world around them
Problem solvers	Children will apply transferable skills to solve problems in a resourceful way.
Resilient	Children accept errors as learning opportunities and explore several ways to solve problems.
Ambitious	Children want to push to be the first to achieve something new and solve problems.
Team Workers	Children work as a team, managing tasks and time effectively to produce working products with a clear purpose.

use a variety of tools to measure, mark out, cut and shape materials.	select and use materials that are fit for purpose.	use a variety of mechanisms to create movement and transfer energy.	work as a team to share workload and manage projects.	evaluate the final product, outlining how to improve.	recognise sustainable materials.	begin to be resourceful with problems, using previous learning to explore solutions.	To recognise key individuals and events during the evolution of products.