Usworth Colliery Primary School ICT 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

ICT INTENT

Our pupils learn best through experiential learning and the ICT curriculum is built around this. At Usworth Colliery, we endeavour to give children a solid grasp of how technology impacts on their lives both inside and outside of school. This is achieved primarily through providing the children with a varied curriculum that exposes them to current developments such as robotics and micro-computing. We also use links with outside agencies, for example Nissan as part of The First Lego League, in order to widen the aspirations of our young learners and offer a range of experiences that put their new knowledge into a real-world context. Through this approach, pupils are offered a curriculum which is exciting, engaging and ambitiously designed to allow all pupils to develop skills and knowledge that can prepare them for life.

To promote resilience and independence our curriculum encourages pupils to adopt a growth mind-set in order to learn from mistakes and develop as learners. We want our children to express themselves creatively and, when appropriate, encourage them to be curious and independent learners who see the benefits of making mistakes when learning.

Our curriculum is based on the expectations of the national curriculum and is designed to be both progressive and matched to the needs and interests of our pupils. Long term plans are designed to be developmental and progressive and each new topic or learning experience builds on the skills knowledge and understanding previously taught.

To support the unique needs of our pupils the curriculum has vocabulary at its core. As pupils progress through school, children's vocabulary is improved through consistent exposure to new subject specific vocabulary that is introduced as skills progress. Teaching builds on previously learnt vocabulary and the acquisition of this allows the children to discuss and reason within the subjects. Pupils access a wide variety of digital content to develop their digital literacy and spark their interest and enthusiasm for learning. It is important that our children have a strong set of basic skills which they are comfortable and confident with so that they can apply them as technology develops. Furthermore, our children often have a strong existing skill set, beyond what the curriculum covers, particularly with handheld technology. We therefore encourage pupils to be responsible and self-aware when using ICT in everyday life, encouraging them to be respectful and tolerant and to consider carefully the content they interact with.

Children in EYFS spend time in our ICT suite every week. Activities include using online games, collecting data and creating digital content (such as pictures). As the year progresses, these activities are designed to help children become more comfortable when using a PC and familiarise themselves with common tools and software that they will encounter in Key Stage 1. Children also begin to consider how to stay safe when using ICT. This is taught using appropriate stories, for example PeguinPig by Stuart Spendlow, and via discussion of good practice when completing the activities above. Alongside dedicated time in the ICT room, each week pupils also watch a section of Maddie's Do You Know or Grace's Amazing Machines and discuss how technology contributes to everyday activities and to the products that we use.

We INTEND that our curriculum will:

Develop strong basic skills	It will mean that children are comfortable navigating different software using a range of devices and peripherals to the point where this will become intuitive when encountering new technology and software.
Ensure previous learning is embedded, taking individual starting points into account.	Revisit and consolidate skills to allow pupils to build on previous learning from a position of familiarity. Revisit previous learning within the strand, regardless of the amount of time between tasks. Opportunity to discuss previous learning and solutions via class discussion.
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	Children to apply skills learnt in ICT to help them effectively investigate and share information in different parts of the curriculum (e.g. topic research, data handling, presentations).
Ensure technology is used safely and sensibly.	Children explore and discuss a range of positives and negatives of ICT in different contexts (e.g. E-Threats, using simulations, communicating with others).

ICT IMPLEMENTATION

So that the majority of our pupils reach age related expectations at the end of each key stage, lessons are based on building from a position of familiarity.

Curriculum overviews have been created to ensure that learning is revisited to support pupils understanding whilst building year on year to develop and challenge our learners. ICT is delivered as a stand-alone lesson by a single teacher during PPA time. The curriculum is adapted to best suit our learners and the digital landscape. Our PSHCE curriculum is also linked to the skills taught in digital literacy and these values are embedded within everyday learning via lessons, class assemblies and safer internet activities. Our curriculum is broken into the following three separate strands: Computer Science (covering algorithms, computer programming and simulations); Information Technology (including using different software to create and manipulate content and to collect, sort and analyse data and information) and digital literacy (covering how to use technology safely and sensibly and using technology to communicate and collaborate in different ways). EYFS children spend time in the ICT suite each week familiarising themselves with how to use the hardware available (keyboards, mouse) using a range of games and age appropriate software (e.g. 2Simple). iPads are also available for use in class and are used to supplement other subjects (e.g. phonics & maths games). A specific key skills framework is available for EYFS and is used during PPA to map coverage (green being met and white being not met). At KS1 & KS2 tasks and projects are usually designed to initially revisit previous skills and learning before building and extending on understanding. When new concepts are introduced they are revisited and applied in different contexts. A pupil asset framework is used at the end of each lesson to formatively assess progress (red showing a developing understanding, green showing a solid understanding and blue showing a mastery). This is then used to formatively assess progress at the end of the year. Base & Thrive provisions again use the strands above, consolidating key skills within the wider context of other lessons in the curriculum. iPads are used within class and the ICT suite is available for pupils on a Monday and Tuesday morning. Where appropriate, children from Blue & Yellow Base provision and Thrive access ICT with their peers and are provided with supportive materials to access projects.

Real-world Opportunities:	Big ideas:
Learning about the advantages of disadvantages of using simulations. Collecting, displaying and interpreting data. Computer Science curriculum develops knowledge of how digital systems work through programming robots and exploring computer networks. Also includes learning about how AI is used in different contexts. Digital literacy curriculum, which evolves and adapts to support pupils with the ever-changing digital landscape. Including exploring how technology is used in places such as homes, schools and manufacturing.	Computer Science: pupils learn the principles of information and computation; how digital systems work and how to put this knowledge to use through programming. Digital Literacy: pupils are equipped with the knowledge to help them stay safe online and use technology sensibly and discernibly. Information Technology: Pupils are able use, express themselves and develop their ideas through information and communication technology including different software and devices.

ICT IMPACT

Children at Usworth Colliery are growing in confidence when discussing how technology is used in different elements of society. Most pupils are curious to explore and experiment with software and hardware and are beginning to apply this when solving problems. Children often discuss their ideas and work collaboratively to reflect and evaluate upon their learning so they can appreciate their successes and next steps. A number of pupils are keen to support others. Whilst they are happy to discuss points, some pupils still rely on peers to highlight answers. A significant percentage of pupils are reluctant to solve problems independently and need to continually be exposed to problems and encouraged to debug. Most pupils show a strong set of basic skills and building from a point of familiarity is gradually building confidence. Scaffolding is also available for those who require it (e.g. help guides, differentiated tasks, videos) which allow pupils to achieve or extend the task. Our computing curriculum gives pupils the opportunity to experiment with technology in a safe environment whilst teaching pupils the skills needed to be responsible digital citizens, who are ready for the next step in their education and the outside world.

The IMPACT of our curriculum will create pupils who are:	
Curious	Pupils independently explore and experiment with software and hardware and apply this when solving problems
Problem Solvers	Pupils explore different options when solving problems and share ideas with each other.
Resilient	Pupils will be resilient when faced with challenges and apply previous learning. Pupils with discuss solutions with peers.
Discerning	Pupils will consider the content that they consume and evaluate if it is safe and appropriate.