



Computing at Gaskell Primary School

Intent:

Children to be critical thinkers and use resources cross curricular to enhance learning and be adaptive users of technology for the present and for the future.

Why do children at Gaskell Primary School need to study Computing?

By experiencing Computing, our children will understand how Computing can enable them to be masters of technology to be able to explore and understand the changing digital world in which we live in. Technology is everywhere and will play a pivotal part in students' lives, therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. Wider life experiences are limited in our school context and Computing will give the children the chance to be explore the world in many ways from a range of digital devices. We recognise that technology can allow pupils to share their learning in creative ways. We also understand the accessibility opportunities technology can provide for our pupils. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply their knowledge creatively which will in turn help our pupils become skilful computer scientists. We want our children to be fluent and confident with a range of tools which will set them up for today's and tomorrow's world.

What are the aims for the Computing Curriculum?

- To be able to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- To be able to use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
- To be able to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- To be able to select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
- To be able to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.



The National Curriculum for Computing aims to ensure that all pupils:

- Be able to understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Be able to analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Be able to evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Be responsible, competent, confident and creative users of information and communication technology.

What values and drivers underpin the current curriculum content?

At Gaskell we have key values and drivers which support our children *'to become successful citizens in today and tomorrow's world'*.

In Computing we show:

Happiness: We use different apps and devices to express our individual creativity.

Empathy: We keep connected to the ever changing world and the issues we face locally, nationally and globally.

Ambition: We aspire to be prepared for our future roles in the community and working world with the use of ever developing technology.

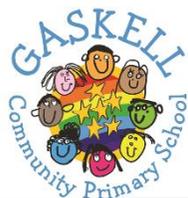
Respect: We respect everyone online and in the posts we create for others to see.

Resilience: We appreciate that some aspects of Computing can be challenging but we continue to work hard to improve our skills.

Tolerance: We respect that other people might have different views to ourselves as we live in a diverse community.

Self-confidence: We are actively engaged in Computing which helps us achieve our goals of problem solving and decision making.

In Computing we are:



Healthy Pioneers: Technology helps us to develop hand-eye coordination, fine motor skills and to be critical thinkers. Computing helps and teaches us about the world around us to successful and happy.

World Citizens: With modern technology children will develop an understanding about where they live and the wider world. Through learning about the world, they will understand their role in today and tomorrow's world by developing respect and tolerance towards the environment. Children are encouraged to challenge themselves to gain high aspirations about what their future 'world of work' may look like.

Avid Adventurers: We are passionate that children are excited about computing. We believe that a curriculum rich in numerous digital experiences develops confidence and resilience. We want them to know that life exists outside school, their home and local community. There is a digital world waiting to be explored. We know their learning experiences will ignite the imagination and advance their knowledge and understanding, taking into account their diverse starting points and enrich their experiences of life.

Confident Communicators: In Computing, we will develop imagination and provide a rich vocabulary through which to construct knowledge and understanding of the world. Children will be encouraged to use different applications confidently, for a range of purpose and audiences. We will give the children opportunities to think critically by solving problems and making choices. We discuss how to safely communicate across today's technology and this is embedded each year.

Creative Minds: Individuality and self-expression is promoted through Computing whilst developing resilience, resourcefulness and risk taking when faced with more challenging tasks. Creativity is encouraged in all areas.

How are British Values taught through Computing?

British values, including those of mutual respect and tolerance of those with different faiths and beliefs are embedded in the Computing curriculum. We promote tolerance through different people's ideas, creative responses and understanding of different cultures within Computing. Pupils are encouraged to question and explore what Computing is studied. Computing in Britain is studied through the curriculum. Pupils have the opportunity to work independently and as a team to build resilience and self-belief through tasks, sharing ideas and resources, peer assessment and supporting each other



Computing Intent, Implementation and Impact

Why has the specific content knowledge been selected? Why is it taught in the order that it is?

The National Curriculum gives a broad coverage for Computing. This allows us to be selective as to when the units of work are taught. We have designed the Computing curriculum to ensure it is well-sequenced, has a clear progression and end point. Reading and vocabulary is at the heart of the Computing curriculum. We have split the Computing curriculum into four sections which runs through Gaskell to allow children to deepen their knowledge and understanding whilst giving plenty of opportunity for long term memory links.

How are Computing lessons taught at Gaskell Primary School?

The topics start with a vocabulary focus linked to the subject specific and topic specific words needed to ensure they can apply the knowledge and skills needed to make progress. Reading links are vital and we adapt a cross curricular approach to the topics. By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Each year the Computing curriculum is split into Digital Citizenship, Digital Literacy, Computer Science and Information Technology, this is so children can learn a range of skills and build upon prior knowledge each year. Children are assessed against the iCan statements so teachers know their next steps in learning.

What is the impact?

After the implementation of this robust computing curriculum, children at Gaskell will be digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely. The biggest impact we want on our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online. As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.