



Curriculum Statement – 2021/2022

Computing

Intent

- Fulfil the potential of all our pupils; intellectually, socially, morally, emotionally and culturally
- Foster and encourage a love of learning based around our core values of self-motivation, teamwork, resilience, independence, vision and emotional intelligence
- Deliver high-quality computing education embedded in computational thinking and creativity in order to equip our children for an ever changing world
- Design a Computing curriculum that has deep links with mathematics, science, music, art and design and technology, and provides insights into both natural and artificial systems
- Our pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming
- Pupils are equipped to use information technology to create programs, systems and a range of content
- Ensure that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the stage of their lives and educational journey when their time here at Newton-le-Willows comes to an end
- Understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Pupils are able to analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- To equip the children with the skills required to use computers, tablets, cameras and other digital tools effectively to enable them to maximise their potential, as well as the knowledge and understanding of how to stay safe in an ever-increasingly online world
- Promote self-motivation, resilience, independence, teamwork, communication skills and problem solving
- All our pupils become confident users of IT and responsible digital citizens who are ready to meet the challenges of their digital future.

Implementation

- The teaching of computing knowledge and skills is both sequential and relevant to their learning projects in other areas
- Computing is taught through discrete, weekly lessons, within which all children have dedicated time to access both the ICT suite and iPads
- Each year group is taught a variety of topics, each of which incorporate elements of the areas of the National Curriculum: Information Technology, Digital Literacy and Computer Science
- Staff plan from and use resources based on the online learning platform Purple Mash. Teachers use this learning platform as a starting point to develop purposeful and challenging lessons which all children to work towards the National Curriculum learning objectives
- Staff assess children on an ongoing basis. Staff will use both formative and summative

assessment judgements to inform their practice and differentiate their lessons appropriately to account for pupil ability and level of challenge

- Teachers set ambitious targets which stretch pupils of all abilities and allow inclusivity within all lessons
- Each year group consolidates previous learning whilst gaining new understanding and skills, ensuring that all aspects of the National Curriculum are covered
- The school continually maintains, updates and develops its resources to allow effective delivery of the National Curriculum
- Staff are required to inform either the school's ICT Technician or Computing Subject Leader of any faults as soon as they are noticed
- A service level agreement is in place with pupils, which all parents are made aware of, to help support the school's ICT team to fulfil their roles in relation to hardware & audio visual
- The computing infrastructure of resources means that all children have access to: desktop computers, laptop, iPads, cameras, programmable robots, bespoke educational accounts on learning based platforms and interactive whiteboards
- All resources and software are used under the guidance of class teachers, and any equipment or software that is used is externally checked to ensure GDPR compliance and is approved by the Local Authority
- The school has an onsite, dedicated technician as well as an external technician from the Local Authority who visits once per fortnight
- The subject leader has good knowledge and seeks to further the subject through continuous professional development, research and regular meetings, including local network meetings
- Our service provider does filter information but staff are responsible for the information accessed by pupils. When a teacher plans to use a website or programme, the content should be checked and prepared before a lesson
- To ensure that copyright laws and virus protection procedures are adhered to, staff, pupils and parents are not permitted to run software brought in from outside school on school machines and internal systems

Impact

- Teachers regularly assess pupil understanding through a range of formative assessment strategies, observations and looking at completed work
- Summative assessment is recorded for all pupils, showing pupils' attainment in relation to specific learning objectives
- Children's work is saved both on the internal school network, whilst some work may be printed and filed within individual subject folders
- In the EYFS, class teachers assess children's development and progress in computing by making informal judgements as they observe children
- In Key Stage 1/2, class teachers gather evidence of what individual pupils know, understand and can do in computing by observing them at work, listening to and discussing with them, and evaluating and responding to any work they produce
- At regular intervals throughout the year, an assessment of learning outcomes is recorded and pupils' attainment and progress data is gathered. This is used to identify which children need further support or enhanced challenge
- Pupils will cover the statutory and non-statutory guidance of the national curriculum
- Opportunities are provided to regularly revisit concepts and link ideas together
- Pupils have access to high quality programs and resources
- School will foster a real love of computing
- Children will leave with specific subject knowledge and skills to prepare them for the next phase in their educational journey and able to integrate into a modern British society