



Computing Rationale

'Education is our passport to the future, for tomorrow belongs only to the people who prepare for it today.'

Malcom X, 1964

At Neston Primary School, we encourage our children to value and enjoy the curriculum we deliver. We believe that our computing curriculum should be viewed in its widest possible context, as the entire planned learning experience; including formal learning opportunities as well as events, routines and enriching activities that take place beyond the classrooms. A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures 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 future workplace and as active participants in a digital world. Research carried out by LinkedIn suggests 150 million new technology jobs will be created by 2026 – our computing curriculum prepares our children for their future.

At Neston Primary School we want our children to love computing. We want to inspire our children so there are no limits to their ambitions. We want them to embody our core values. The computing curriculum has been carefully planned so that our children develop not just their digital literacy but also their digital capital. We want our children to remember their computing lessons in our school, build on these memories with confidence and embrace the opportunities they are presented with. **Our school plans activities to celebrate and share National Internet Safety Day and staff use Project Evolve online resources to deliver vital online safety sessions. Recently, we have also supported parents with navigating their children's safe use of the internet outside of school by providing an online workshop run by the NSPCC. These are examples of how we embed vital safeguarding messages into our curriculum. Keeping our children safe is our number one priority.** Bringing computing alive and making it relevant for our pupils is at the heart of computing at Neston Primary School.

Intent

The computing curriculum at Neston Primary School, like all areas of our curriculum, promotes curiosity and a passion for life-long learning. It is ambitious



and empowers our children to become knowledgeable, independent and resilient – our global citizens of the future. Technology is everywhere in our young people's lives and we can only begin to imagine how it will evolve and develop in the future. At Neston Primary School we want to educate our pupils on the safe, positive and responsible use of technology. Our vision is for our pupils to be creators not just consumers; our balanced curriculum shaped around Computer Science, Information Technology and Online Safety and Digital Literacy displays this. Pupils need to develop the understanding that using technology presents us with choices and as a school we aim to utilise technology, including social media and communication platforms, to model its positive use.

We want our curriculum to equip our pupils with not just the minimum statutory requirements of the National Curriculum computing but with the breadth of skills and experiences they need to become creative learners with aspirations far beyond the classroom walls. **For example, our learners in Years 4,5 and 6 recently took part in a computational thinking challenge called Bebras UK. This challenge is organized in over 50 countries and designed to get students all over the world excited by computing. The children really enjoyed this challenge and some students surprised themselves with their skill level.**

At the very core of what we do, we want our children to respect diversity, co-operate with one another and appreciate what they have. We achieve this by providing a strong SMSC curriculum, with British Values and our core values placed firmly at the heart of our curriculum design. This often feeds into the computing curriculum. **For example, the whole-school celebrated Safer Internet Day 2023 – To reinforce the importance of staying safe online, links to age appropriate resources were shared with pupils, parents and carers across all our learning platforms and pupils, both on site and accessing learning from home, took part in activities to help secure and celebrate their understanding.**

We are keen to embrace the ways in which technology can allow pupils to creatively explore, extend and share their learning. We also understand the accessibility opportunities that technology can provide for all members of our school and we seek to embrace this both in our classrooms and in our connections with our wider community. At Neston Primary School we want our pupils to embrace their potential and imagine the possibilities.

Implementation

We focus our teaching around three main areas of computing: Computer Science, Information Technology and Online Safety and Digital Literacy. These will be taught year on year to ensure pupils progressively build their skills and knowledge. In addition to this we frequently revisit online safety through themed activities and celebrations like our participation in National Safer Internet Day.

At Neston, teachers are supported in their delivery of the computing curriculum using the NCCE Teach Computing scheme of work. The units for key stages 1



and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years.

We encourage staff to teach a weekly computing lesson as well as plan for opportunities where pupils can apply their knowledge in other subject contexts. This helps to ensure sufficient time is allocated to computing and that computing subject matter can be revisited frequently. We believe that by crafting our curriculum this way, we improve the potential for our children to retain what they have been taught, to alter their long-term memory and thus improve the rates of progress they make.

Impact

We use both formative, including the use of questioning and knowledge organisers, and summative assessment in our computing lessons. Staff use this information to inform their short-term planning and short-term interventions. This helps us provide the best possible support for all of our pupils, including providing greater challenge when necessary. The assessment endpoints for each phase have been carefully mapped out and further broken down for each year group. This means that skills in computing are progressive and build year on year. Children in Foundation Stage are assessed within the EYFS framework.