Vision - Intent

Our computing vision, at Tenbury Primary Academy, is to equip children with the skills to be safe, creative and confident in an increasingly digital world. As computing technology underpins today's modern lifestyle it is essential that all children gain the confidence and ability that they need in this subject. We believe that all children should be empowered to be active creators rather than passive consumers, if they are going to thrive in an increasingly digital world that is evolving at an ever increasing pace.
To achieve this our curriculum is designed around the three interconnected strands of computer science, information technology and digital literacy. Pupils make progress in computing by knowing and remembering more about and, importantly, across each of these categories and being able to apply this knowledge. However, these strands do not sit separately from each other. Knowledge from each strand complements the others and some subject content only exists at the interplay between these 3 strands.

The **Computer Science** strand covers knowledge of computers and computation, including concepts such as data, system architecture, algorithms and programming. Computer science is seen as the core of computing and underpins the whole of the subject. Because of this, computer science provides the foundational knowledge required to understand and interpret the other areas of the computing curriculum.
The **Information Technology** strand provides a context for the use of computers in society. It focuses on how computers are used in different sectors and describes the methods used to create digital artefacts such as presentations, spreadsheets and videos allowing children to move from being digital consumers to digital creators.
The **Digital Literacy** strand focuses on the value of technology. It covers a range of knowledge and skills, such as using physical devices or knowledge of the features that are likely to mean digital content is reliable. In order to use technology at its best, we need to

equip children with the skills to evaluate its use. Children need to understand and respect the positive and negative impact technology has on our society, in order for them to make clear, confident choices about how they use it in their everyday lives. A significant part of this strand is to provide children with the knowledge of how to keep safe when using the internet, allowing them to be discerning members of a digitally literate community.

Vision - Implementation

Pupils participate in regular Computing lessons in order to achieve the intent of the Computing and E-safety curriculum at Tenbury Primary Academy. In addition to stand-alone lessons, skills taught are incorporated into other subjects, given the cross-curricular nature of computing and the opportunities to expand and develop lessons that this brings. Lessons are delivered using a range of devices and through unplugged activities where necessary. The delivery of computing and E-safety at Tenbury Primary Academy is planned in line with the National Curriculum and allows for clear progression as children move through each stage of their education with us. Teachers use 'Teach Computing' as a scheme to support their planning and delivery, which caters for all children, including those with SEND and from disadvantaged backgrounds. Each year, children are taught the three main components of computing (Computer Science, Digital Literacy and Information Technology) This allows children to build on and progress from their previous experiences, developing their skills, vocabulary and understanding in order to be active, responsible digital content creators. We have also identified key skills that are required in order to access and achieve key objectives within the curriculum. These are progressive and referenced in our 'non-negotiables' document which guide teaching throughout the year. E-safety is referred to the 'Teach Computing' units where appropriate. Our PSHE curriculum (My Life) also contributes to our delivery of e-safety. We also use the Project Evolve resources to supplement the 'teach computing' curriculum.

Our E-safety lessons build on prior knowledge and are adapted/modified to suit the requirements of the pupils within the class and current issues that may be relevant. At Tenbury Primary Academy, we strive to engage parents and carers with the importance of safe and responsible behaviour online and distribute a monthly online safety newsletter via Knowsley City Learning Centres. In addition to this any additional topical internet safety

concerns are addressed with information bulletins. Pupils also take part annually in ‘Internet Safety Day’ and ‘Anti-Bullying Week’, following the suggested themes, which reflect current issues.
We recognise the need to continually maintain, update and develop resources to ensure the effective delivery of the National Curriculum and support the use of technology throughout the school. This includes: Interactive whiteboards in every classroom to enhance and promote effective use of technology for learning. 31 Chromebooks for pupil use within lessons. 32 iPads for pupil use in both discrete lessons and across the wider curriculum. 2 ipads in each classroom as an additional resource to support teaching and learning. A range of programmable devices such as BeeBots and Car One. A range of plug-in devices to support programming, such as Micro Bits, Crumble Controllers and Data Loggers to collect and analyse data Subscription to online content such as Discovery Education, Education City, Phonics Play, TTRockstars and Numbots to promote learning in school and remotely through home access. The use of ‘Google Classroom’ is used to promote and support communication and collaboration across the curriculum. Lessons are planned to provide for and include all children, including those with SEND, pupils achieving greater depth, pupils with EAL needs and pupils from all social and cultural backgrounds. Pupils without home access are supported and catered for accordingly.

In the Foundation Stage, children work on basic computing skills and are introduced to aspects of e safety so that they are ready to progress when they begin in Key Stage One.
In Key Stage One, children will learn to understand what algorithms are, how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They will be taught how to create and debug simple programs and use logical reasoning to predict the behaviours of simple programs. They will be shown how to use a range of technology purposefully to create, organise, store, retrieve and manipulate digital content as well as recognise common uses of technology beyond school. They will be

taught to use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

In Key Stage Two, the children will build on their knowledge and experience from Key Stage One and will design, write and debug programs that accomplish specific goals by decomposing them into smaller parts. They will use sequence, selection and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in their own and existing programs. Pupils will be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results and selected and ranked, and be discerning in evaluating digital content. Pupils will be taught to select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that achieve given goals. They will be taught to use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour and be clear how to identify a range of ways to report concerns about content and contact to keep themselves and others safe.

Vision - Impact

Evidence of progression and achievement will be seen in examples of pupils' work stored on the server. As a result of effective implementation, pupils will be able to apply their skills and knowledge in other areas of learning. Pupils will be able to share their knowledge of how to be a responsible user of technology through discussion when questioned. They will be prepared for the next stage in their lives, knowing how to be a responsible user of technology in the wider world and most importantly, know where to seek support. Pupils will be familiar with and will discuss their understanding of the three main strands and will know key vocabulary associated with these. Confidence in this subject will also mean that pupils are able to be more independent and competent in life skills such as problem solving and logical thinking.