

Introduction:

This policy expresses the school's purpose for the teaching and learning of Computing. It sets out the aims; planning of the curriculum and assessment and monitoring. It was developed in Autumn term 2015 by the Computing subject leader, L. Sinton through discussion with teachers and the leadership team and based on Computing programmes of study (POS): key stages 1 and 2 (*DfE September 2014*). It has since been reviewed and adapted by the current Computing subject leader, M. Cruickshank, in Summer term 2018.

Purpose:

We believe that an engaging and motivating Computing curriculum will enable our learners to:

- Use computational thinking and creativity to understand and change the world.
- Make deep links with mathematics, science and design and technology.
- Build knowledge of principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.
- Become digitally literate able to use, express themselves and develop ideas through information and communication technology.

Aims

- The Computing Subject Leader and leadership team support staff to deliver a high quality computing education.
- Computational thinking the ability to solve problems in a creative, logical and collaborative way is
 developed through repeated programming opportunities and opportunities to build understanding and apply
 the concepts of computer science.
- Pupils become responsible, competent, confident and creative users of information and communication technology.
- Pupils have a growing awareness of how technology is used in the world around them and of the benefits that it provides. They are supported to evaluate and use information technology, including new or unfamiliar technologies.
- Opportunities for communication and collaboration develop understanding of the purposes for using technology and these are used to bring together home and school learning experiences.
- Technology is used imaginatively to engage all learners and widen their learning opportunities,
- Pupils have access to a variety of devices and resources and are encouraged to reflect on the choices they
 make to use them.
- We expect our pupils to:
 - Develop computing skills, knowledge and understanding
 - Develop an understanding of the wider applications of computer systems and communication technology in society
 - Develop independent and logical thinking through reasoning, decision making and problem solving
 - Develop imagination and creativity
 - Work independently and collaboratively

Curriculum coverage and progression:

- Planning for Computing is implemented using two core documents: the National Curriculum Programme of Study for Computing and the Statutory Framework for Early Years Foundation Stage
- Long term planning has been developed using the Somerset eLIM Computing Progressions and demonstrates coverage and progression of the attainment expectations at the end of Key Stage 1 and Key Stage as identified in the Computing POS, as recommended by NYCC.
- Medium term planning takes account of differentiation and progression and is based on Somerset progressions in Programming, e-Safety, Multimedia, Handling Data and Technology in our Lives.
- The computer science aspects of Computing are taught discretely through the Programming and Technology in our Lives threads of Somerset's computing model.

- Key skills in information technology are developed through Multimedia and Handling Data threads and are integrated into learning in other curriculum areas.
- E-Safety is developed throughout the Computing Curriculum and discretely as an e-safety unit for both KS1 and KS2. Together with the threads of Technology in our Lives and Multimedia, e-safety teaching builds the skills and understanding of Digital Literacy.
- Opportunities for technology as a tool to support learning and teaching in all areas are identified in curriculum planning.

Assessment:

- Progress is assessed on an on-going basis using the Somerset 'I can' statements for each thread of Computing. This ensures teachers are aware of individual pupil's progress in computer science, information technology and digital literacy.
- Formative assessment is used by the class teacher during whole class or group teaching. Children's confidence and difficulties are observed and use to inform future planning.
- Each class teacher maintains a record, indicating pupils that are working at, beyond or below age-expected attainment. This will be recorded using SIMS and passed on to the next class teacher.
- Open questions are used to challenge children's thinking and learning.
- Children are encouraged to evaluate their own and others' work in a positive and supportive environment, including peer assessment.
- Teacher's judgments are supported through an electronic portfolio of evidence which can be found on JIT and J2e class files.
- Information is shared with the school community through the school website, display, celebration events, newsletters, and end of year reports.

Early Years:

- Pupils build confidence to use technology purposefully to support their learning for all Early Learning Goals as appropriate.
- Pupils in Foundation Stage class will have experiences using technology indoors, outdoors and through role play in both child-initiated and teacher-directed time.
- The Foundation Stage teacher uses the Somerset Continuous provision map to plan for technology in a range of contexts.
- Nursery children access IT within their own classroom in the form of IPADs and desktops.

e-Safety:

- A progressive e-Safety curriculum ensures that all pupils are able to develop skills to keep them safe online.
- Opportunities for learning about e-Safety are part of the Computing curriculum and are reinforced whenever technology is used.
- Clear rules for e-Safety are agreed by each class at the beginning of every year. Parents and pupils sign an acceptable user policy together when a pupil first starts at the school.
- The school supports the international Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying week in the autumn term.
- Opportunities are taken whenever possible to reinforce messages of a healthy life style.
- The school has an e-safety policy in place that details how the principles of e-safety will be promoted and monitored.

Monitoring:

- The impact of the Computing curriculum is monitored regularly by the Computing subject leader through pupil discussion, samples of work and discussion with teachers and an electronic.
- Systematic monitoring of all threads of Computing informs the subject leader and school development plan.
- The Computing leader conducts regular audits of the training needs of teachers and teaching assistants to improve their subject knowledge and confidence. Requests for training in Computing can be part of individual teacher's performance management plan.

Equal opportunities:

- The school maintains its policy of equal opportunities as appropriate for Computing.
- Computers and related technology are made available to all pupils regardless of gender, race or abilities.
- The class teacher differentiates work by task, resource or support, to ensure the individual needs of more able and SEN pupils are met.
- The school is aware that not all pupils have the same access to computers at home and this is considered by staff in the planning and delivery of the curriculum.

Resources

- The school has a range of resources to support the delivery of the Computing curriculum, the Early Years Framework and learning across all areas of the National curriculum.
- Just2easy Infant Tools or JIT is a set of online educational tools specifically designed for younger learners.
 JIT has a colourful and friendly feel which appeals to reception through to KS2. JIT encourages children to
 create on the web in a fun and stimulating way. JIT consists of 7 tools, Write, Paint, Turtle, Chart,
 Pictogram, Animate, and Mix. Every tool builds upon the other and allows a child to progress at their own
 pace
- J2E is a complete set of tools comprising of a multi-media document creator (j2e5), a code writing framework (j2code), a database tool (j2branch and j2data), a file storage area (my files), the ability to create a school website and blog (j2webby and j2bloggy) and a few more tools besides
- Online tools such as age appropriate websites, programming websites (e.g. TES iboard, J2Code, Studio Code, Scratch, Tynker, Blocky Maze), online animation websites and free software (e.g. ABCya animations, Microsoft Moviemaker, Photostory), online datahandling sites (e.g. Naace Greenfield Road), online paint programs (e.g. Sumopaint.com, mudcu.be/sketchpad), e-books such as StoryJumper.com and e-comics such as British Council comic strip maker, BBC websites, online music websites (e.g. freeplaymusic.com), Thirsk CP School e-schools (for sharing blogs and showcasing children's work and achievements) are all part of the experience of pupils.
- The Computing subject leader keeps up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's ICT Technician.
- Hardware and software faults are logged by the class teacher in a file kept in the school office.
- The Computing Action Plan expresses the school's priorities for future expenditure and is reviewed by the Computing subject leader, governors and senior management who consider its impact on all learning.
- Governors and senior management ensure that they achieve value for money by implementing the
 principles of best value in evaluating, planning, procuring and using technology.
- Old resources are disposed of in line with NYCC's environmental disposal policy and the school's data protection policy where these are applicable.

Roles and responsibilities:

- The school community works together to ensure the implementation of the Computing policy.
- The subject leader is responsible for monitoring curriculum coverage and the impact of learning and teaching; and assists colleagues in its implementation.

- Subject leaders in other curriculum areas are responsible for recognising the links between computing and English, Mathematics, Science and foundation subjects; and planning to use these to support learning across the school.
- The Computing subject leader provides feeback as required to governors on the impact of the Computing curriculum. Governors may include Computing in their learning walks around the school.
- The class teacher is responsible for delivering an effective Computing curriculum and integrating this into their planning for other subject areas where this is appropriate.
- The school receives technical support from an ICT Technician and Schools ICT and the technician is
 responsible for the maintenance of computers, printers, the school network and keeping software up to
 date. The subject leader liaises with the technician to ensure that the systems are running efficiently.

Health and safety:

- Age appropriate class and safety rules are displayed in the learning environment.
- Equipment is maintained to meet agreed safety standards.
- From Foundation Stage, pupils are taught to respect and care for technology equipment.
- Further guidance can be found in the school's health and safety policy.

Review:

• This policy will be reviewed annually by the Computing subject leader and leadership team and shared with the school community.