

Computing Policy

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 March 2017 and is based on the computing programmes of study (POS): key stages 1 and 2 (DfE September 2014). It will be reviewed in March 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:

- To deliver a high quality computing education.
- To develop computational thinking (the ability to solve problems in a creative, logical and collaborative way) through repeated programming opportunities and opportunities to build understanding and apply the concepts of computer science.
- To encourage our pupils to become responsible, competent, confident and creative users of information and communication technology.
- To develop pupils' awareness of how technology is used in the world around them and of the benefits that it provides. To support them to evaluate and use information technology, including new or unfamiliar technologies.
- To provide opportunities for communication and collaboration and develop an understanding of the purposes for using technology.
- To ensure that technology is used imaginatively to engage all learners and widen their learning opportunities
- To give our pupils access to a variety of devices and resources and to encourage them to reflect on the choices they make to use them.
- We expect our pupils to become computational thinkers by developing the following **Concepts**: logic, algorithms, decomposition, patterns, abstraction and evaluation and **Approaches**: tinkering, creating, debugging, persevering, collaborating

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 North Yorkshire scheme of work by Yvonne Methley. This demonstrates coverage and progression of the attainment expectations from year 1 through to year 6 as identified in the computing POS.
- Medium term planning takes account of differentiation and progression and is based on 7 areas of computing: Computer Science, Multimedia, Visual Media, Music and Sound, Data Handling, Digital Literacy and Online Safety.
- Computing is taught weekly, allowing staff and children to develop a thorough grasp of the skills, knowledge and understanding required across the three areas of computing: computer science, digital literacy and information technology.
- Staff will choose which area of learning fits best alongside topic and other subjects being taught and add to the medium-term plans. They will use the outline planning to plan creative lessons for their year group. They may use planning ideas from other areas as long as the lesson objectives are covered.

Assessment:

- Formative assessment is used by the class teacher and teaching assistant during whole class or group teaching. Children's confidence and difficulties are observed and used to inform future planning.
- 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.
- Information is shared with the school community through the school website, display, celebration events, newsletters, and end of year reports.
- Teacher's judgments will be supported through work in books and an electronic portfolio of evidence which will provide examples of age-expected attainment.
- Each class teacher will be expected to maintain a record, indicating pupils that are working beyond or below age-expected attainment. This will be passed on to the next class teacher.

Early Years:

- Pupils build confidence to use technology purposefully to support their learning for all Early Learning Goals as appropriate.
- Pupils in the foundation stage class will have experiences of using technology indoors, outdoors and through role play in both child-initiated and teacher-directed time.
- Pupils in the foundation stage class will be encouraged to use computational thinking across different areas of learning. The 'approaches' to computational thinking link closely to the three 'characteristics of effective learning':
 - tinkering, collaboration and abstraction – 'playing and exploring'
 - debugging, persevering – 'active learning'
 - creating, logical reasoning, algorithms – 'creating and thinking critically'

Online -Safety:

- A progressive online safety curriculum ensures that all pupils are able to develop skills to keep themselves safe online.
- Opportunities for learning about online safety are part of PSHE, discretely every half term and reinforced whenever technology is used.
- Parents and pupils sign an acceptable user policy together when a pupil first starts at the school.
- The school has a social media policy in place that details how the principles of online safety will be promoted and monitored by staff.
- From time to time, we offer an online safety workshop for parents, run by the LA.
- Further guidance can be found in the school's online safety and safeguarding policies.

Monitoring:

- The impact of the computing curriculum is monitored regularly by the computing subject leader through pupil discussion, work scrutiny and lesson observation.
- The computing leader organises CPD where necessary to improve the subject knowledge and confidence of staff. All teaching staff have had training on delivering aspects of the new computing curriculum with which they were less familiar, in particular, programming.

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
- The school accesses online resources which are part of the experience of pupils.
- The computing subject leader is responsible for ensuring existing resources are well maintained in partnership with the school's technology support provider.
- Hardware and software faults are reported by the class teacher to the school secretary who logs a call to the school's managed service provider.
- 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.

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.
- 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 'Procom' 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:

- Equipment is maintained to meet agreed safety standards.
- From the 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.

Date for next review

March 2019 (Annually)

<p><u>Policy Adopted by Subject Coordinator</u></p> <p>Name: Miss H Dowell</p>	<p><u>SIGNATURE</u></p>	<p><u>DATE</u></p>
<p><u>Policy Adopted by Headteacher</u></p> <p>Name: Mrs J Elcock</p>	<p><u>SIGNATURE</u></p>	<p><u>DATE</u></p>