



Randlay Primary School and Nursery 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 the Autumn Term 2021 by the Computing subject leader *Mrs Joanne Maddock* 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 will be reviewed in the Summer Term 2023.

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.
- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Give children access to a variety of high quality hardware, software and unplugged resources.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.
- Provide technology solutions for forging better home and school links.
- Utilise computational thinking beyond the Computing curriculum.
- Exceed the minimum government recommended/statutory guidance for programmes of study for Computing and other related legislative guidance (online safety).
- 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 the National Curriculum Programme of Study for Computing
- Long term planning demonstrates coverage and progression of the attainment expectations at the end of Key Stage 1 and Key Stage as identified in the Computing POS.
- Medium term planning takes account of differentiation and progression in Programming, e-safety, Multimedia, Handling Data and Technology in our Lives.

- Exemplification planning by Purple Mash and NCCE Teach Computing has been used to support short term planning.
- The computer science aspects of Computing are taught discretely through the use of Espresso Coding, Scratch, Purple Mash and NCCE Teaching Computing.
- Cross-curricular links are identified in our Cornerstones topics each term.
- 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 at the beginning of each academic year through PSHE and builds the skills and understanding of Digital Literacy. Project Evolve resources assist the teaching of each of the 330 statements from the Internet Safety's (UKCIS) framework "Education for a Connected World" (<https://www.gov.uk/government/publications/education-for-a-connected-world>) Government document. 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 '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 and teaching assistant 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 beyond or below age-expected attainment. This is passed on to the next class teacher.
- Children are aware of the 'I can' statements and are encouraged to set success criteria for their work.
- 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 provides examples of age-expected attainment.
- Information is shared with the school community through the school website, Twitter, computing display, newsletters, sharing assemblies and end of year reports.

Early Years:

- Although the 'Technology' strand has now been removed from the 'Understanding the World' criteria, Computing and technology are still vitally important subjects to deliver to Reception children. Computing lessons in the EYFS ensure that children develop listening skills, problem-solving abilities and thoughtful questioning. Technology in the Early Years can mean taking a photograph with a camera or tablet, searching for information on the internet, playing games on the interactive whiteboard, exploring an old typewriter or other mechanical toys, using a Beebot/robot, watching a video clip or simply listening to music.

Online safety:

- A progressive online safety curriculum ensures that all pupils are able to develop skills to keep them safe online.
- Opportunities for learning about online safety are part of PSHE and reinforced whenever technology is used.
- Clear rules for online 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 class rules are then signed annually by pupils and shared with parents.
- The Purple Mash scheme is used to ensure progression and coverage.
- 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. Whole school assemblies run by the Computing co-ordinator take place during this time.
- 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 online 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.
- 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 and learning across all areas of the National curriculum:

- Desktop computers
- A class set of laptops stored in two trollies
- I pads – each teacher also has their own ipad
- Beebots – based in EYFS
- Ozobots
- BBC Micro:bits
- Interactive whiteboards in every class
- Cameras
- Online tools such as Espresso, Purple Mash, Coding club, Scratch are 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 neighbouring schools.
- Hardware and software faults are logged to the Gold Technician.

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 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 Gold technical support from Matt Kelsall 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 biennially by the Computing subject leader and leadership team and shared with the school community.