Grindleton C.E. Primary School

Computing Policy

The following policy is routed in our school's Christian Vision:

As a unique village school, inspired by our Christian love, we strive to nurture our family to 'grow and shine in God's glory'. We will open our hearts to God's wonderful, diverse creation cherishing everyone as a child of God. Through Jesus' example, we will instil resilience and confidence for tomorrow.

'In the same way, let your light shine before others that they may see your good deeds and glorify your father in heaven.' Matthew 5 v16

Computing Lead – Mrs L Wilson

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Intent

Through our computing curriculum, we want to ensure every child leaves Grindleton C.E. Primary School with the knowledge, skills and understanding to be a responsible, competent, confident and creative user of information and communication technology. At Grindleton C.E. Primary School we deliver the computing National Curriculum objectives through the Purple Mash Scheme of learning. Via Purple Mash, computing is organised into three core strands outlined in the National Curriculum: computational thinking, digital literacy and information technology. These three strands are taught through weekly hourly computing lessons. In addition, computing is utilised in other areas of the curriculum where children use their digital literacy skills to create content in subjects such as Mathematics, English, History, Science and Design and Technology. We support the children to fine tune their research and data gathering skills using ICT. Through this approach we aim to give our pupils the life-skills that will enable them to use computational thinking and creativity to understand and change the world.

Implementation

As Computing is a statutory subject, all classes teach and learn Computing at least once a week as well as discreetly with other subjects. Computing is mapped out across the curriculum using the Purple Mash scheme of work focusing on the objectives stated in the National Curriculum.

Children in the Early Years will have access to a range of devices and remote controlled toys and resources so that they can explore simple technologies independently and use them in their learning and play. Throughout Key Stage 1, children are taught to use technology purposefully to create, organise, store, manipulate and retrieve digital content. In Key Stage 2, children select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplishes given goals. Children across school are encouraged to use technology where appropriate to support their learning in all subjects and to share their work on relevant platforms.

By the end of Key Stage 1 children should:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test simple programs.
- Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

By the end of Key Stage 2 children should:

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

- Use sequence, selection and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the world- wide web; and the opportunities they offer for communication and collaboration.
- Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Impact

Our Computing Curriculum has been structured to demonstrate a progression of knowledge and skills and ensures that children can build on their understanding, as each new concept and skill is taught with opportunities for children to revisit skills and knowledge as they progress through school.

Children become digitally literate and are ready to confidently use technology at home and at school. We believe it is a skill that empowers, and one that all pupils should be aware of and develop competence in. Pupils who can think computationally are better able to create, understand and use computer-based technology, and so are better prepared for today's world and future.

Evidence of progression in computing is collected in individual Computing Portfolios which are split into the three core strands: computational thinking, digital literacy and information technology. We have also added an additional section called 'Cross Curricular' so that evidence of computing can be seen in other areas of the curriculum. We believe that when assessing computing it is important to look for evidence of knowledge of understanding as well as technical skills. Asking pupils to talk about what they have learned as well as showing the work they have completed, provide important evidence of learning. We assess through observation of work on tasks, contribution to class discussion and peer discussions.

Assessment

As well as during each lesson, assessment is carried out throughout the year, across the school. In each class, teachers use summative assessments at the end of a unit as well as KLIPs assessment grids. The grids are highlighted as the skills are achieved and used to inform assessment.

Health and Safety

The school is aware of the health and safety issues involved in children's use of ICT and computing.

- All fixed electrical appliances in school are tested by a LA contractor.
- Staff are advised not to bring their own electrical equipment into School but if this is necessary, then the equipment must be PAT tested before being used in school. This also applies to any equipment brought into school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people.
- All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the subject leader or Head teacher who will arrange for repair or disposal.
- Children should not put plugs into sockets or switch the sockets on.
- Trailing leads should be made safe behind the equipment.
- Liquids must not be taken near the computers.
- Magnets must be kept away from all equipment.
- E-Safety guidelines will be set out in the E-Safety policy.

Inclusion

At Grindleton C.E. Primary School, we teach computing to all children, whatever their ability, age, gender or race. Computing forms part of our school curriculum policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the specific needs of children with learning difficulties. In some instances the use of ICT has a considerable impact on the quality of work that children produce; it increases their confidence and motivation and allows access to parts of the curriculum to which the children would otherwise not have had. Teachers identify children who are gifted and talented in the area of computing. It is the teacher's responsibility to ensure that these children are suitably challenged in their use of ICT and computing both in specific computing lessons and in using ICT in other curriculum areas. Opportunities are identified for these children to actively participate in more challenging aspects of computing.