



Curriculum – Computing

Intent:

At Potten End Church of England School our computing curriculum has been created to ensure that the children have a rich, inspiring experience that balance all the aspects of computing. Computational thinking is a skill children will be taught in order to participate effectively and safely in this digital world. Computing has links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The key skills are taught through computing; pupils will use a wide range of technology, including laptops, iPads, programmable toys such as Bee Bots.

The Purple Mash and Serial Mash schemes are used to provide a creative approach to deliver computing from EYFS to Year 6 and is fully aligned with the 2014 National Curriculum. It supports the teaching and development of computing; building computer science capability for current and future learning and is designed to evolve and embrace new technologies and practices.

This ensures they become digitally literate so that they are able to express themselves and develop their ideas through information and computer technology– at a level suitable for the future workplace and as active participants in a digital world. We teach a curriculum that enables children to become effective users of technology who can:

- Understand and apply the essential principles and concepts of Computer Science, including logic, algorithms and data representation;
- Analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems;
- Evaluate and apply information technology analytically to solve problems;
- Communicate ideas well by utilising appliances and devices throughout all areas of the curriculum.

Internet Safety:

Potten End Church of England School takes internet safety extremely seriously. We have an E-Safety Policy that provides guidance for teachers and children about how to use the internet safely. Every year group participates in lessons on e-safety and children understand how to stay safe when using technology. We also participate in the National Internet Safety Day to promote positive uses of technology and the role that we play to create a better and safer on-line community.

Implementation:

- That all planning follows the 2014 National Curriculum for Computing
- Learning objectives are taken from the Purple Mash program; challenge is added for greater depth children and support through scaffolding for children working towards the age related standards
- All children should be developing computing skills in preparation for secondary school

- Teachers should be modelling computer vocabulary
- Working walls should reflect topics and show vocabulary
- At the start of any unit – children should identify WWK, teachers should be clear on prior learning and previous learning for units being taught
- Children should be encouraged to use computing vocabulary when talking about computing
- There should be assessment at the end of each unit using ARE exemplars and through watching/listening to computing activities
- Planning should
 - provide as many opportunities as possible for children to develop and build on their computing skills. Across KS1 and KS2 skills are revisited and understanding deepened.
 - Differential learning for vulnerable groups – providing support/scaffolding that will reduce the gap between working at ARE and below
 - Provide opportunities for working at greater depth
- Assessment
 - Children should be assessed against the ARE expectations using activities as part of the assessment process
- EYFS – providing opportunities for computing through the use of Purple and Serial Mash
- That resources are available to support children and the teaching of computing
- CPD to be provided where necessary
- Working walls should reflect topics and vocabulary – Environment walks by SL
- Planning and work scrutiny
- Lesson observations, team teaching and support of teachers where necessary
- SL to work with teachers to provide ARE exemplars
- SL – provide teachers with assessment criteria by topic/unit
- SL to ensure deadlines for assessment are adhered to
- SL to look for opportunities for children to visit secondary schools to carry out science
- Resources – SL/Teachers to check resources and identify any resources that need replacing/purchasing
- School to participate in Internet Safety Day.
- E-safety to be taught throughout the year to ensure that all children know about the possible dangers of being on-line and using social media.
- Teachers to look at previous year group learning to ensure that prior knowledge is known and revisited if necessary before starting new teaching.

Impact:

- Children's knowledge of vocabulary and the understanding of how to use computing technology is developed and the children are prepared for secondary school
- Teachers are aware of progression from one year group to next – for both knowledge and computing skills
- Assessment of computing is accurate
- Scaffolding is provided for vulnerable groups/LA children providing them with opportunities to reduce the gap
- Lessons are engaging and encourage children to consider careers in computing
- Progress is visible across the school
- Teachers are confident in delivering computing
- Resources are available for the children and teaching of computing