



Computing

Approved by Trust/ Local Governors: March 2022

Date of Review: September 2022



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1. Introduction

Computing is an integral part of our everyday life and will play an immeasurable part in our children's futures. As computing technology underpins today's modern lifestyle it is essential that all pupils gain the confidence and ability that they need in this subject to prepare them for the challenge of a rapidly developing and changing technological world. As Computing becomes more accessible and prevalent within our society it is of the utmost importance that we prepare our children to be technologically aware. It is vital that we teach children how to stay safe, be confident and happy when using this technology.

2. Aims

- To improve pupils understanding of the significance of Computing for society and the individual.
- To provide skills for the application of Computing.
- To encourage informed use.
- To enable all children to enjoy their work with Computer equipment and to feel positive and confident about it.
- To develop strategies for using Computing to support enquiries, investigations, research and experiment.
- To encourage perseverance.
- To encourage children to ask questions.

3. Teaching and Learning Objectives

Teaching and learning objectives are related to all aspects of the National Curriculum programmes of study, attainment targets and statements of attainment and will be referenced in the plans. Opportunities will be offered to extend pupils experience of Computing beyond National Curriculum requirements, if appropriate. Computing should be used to good effect in different situations if the necessary skills are to be developed.

4. Teaching and Learning

The Computing Co-ordinator, who is a specialist in the subject, will be responsible for the planning of all Computing lessons for all the year groups within the school. Due to this approach, a clear progression in learning can be established and maintained. A structured Computing syllabus will be achieved linking prior learning to the development of skills and the three learning strands of Computing (Computer Science [CS], Information Technology [IT] and Digital Literacy [DL]) will be addressed effectively. Each strand has two units dedicated to it, and each unit is a half-term long. Together they make up the six half-term academic year.

In Key Stage 1, the class teacher will have responsibility for the delivery of the subject using the detailed planning of the Computing Co-ordinator and their close support. In Key Stage 2, the Computing Co-ordinator will have responsibility for the delivery of the subject.

As many teaching and learning strategies as possible should be offered with the balance of styles carefully planned to ensure a variety at all stages and across all subjects using a wide range of programs. Pupils should be challenged by Computing in a way that promotes confidence and success at their level.

5. Visits and Visitors

Staff should be encouraged to use educational visits and visitors to further the individuals' understanding of the many applications of Computing within the environment. With this in mind, the after-school tech club will provide additional opportunities to enhance in-school learning.

6. Links across the Curriculum

Development strategies and pupil application of their previous knowledge to a wide variety of situations within all curriculum areas should be promoted. Computing should be fully integrated across the curriculum within existing subject areas. Computing lessons will provide the opportunity to research and publish work that links directly to other subject areas.

7. Equal Opportunities

Every pupil will be offered an equal opportunity to experience all aspects of the curriculum regardless of race, sex or religious beliefs.

8. Differentiation

As far as possible, work will always be planned with a variety of levels to promote the progress of children at all stages and abilities. Specific help for pupils with identified special needs to be provided from a variety of sources, which includes small group or individual support by the LSA. Where appropriate, more able students will be encouraged to guide their peers to develop their knowledge of a concept further. Through teaching a skill they will gain a greater depth of understanding.

9. Management and Administration

The Assistant Headteacher will be responsible for overall co-ordination of the curriculum. The Computing Co-ordinator will be responsible for the day-to-day management of the subject in terms of implementation of the Computing policy in co-operation with the Computing Support Consultant. **The policy will be reviewed annually towards the end of the summer term by the curriculum leader and shared with the governing body and Trust.**

10. Inset

Staff will be kept up to date with developments in the field through both external and internal in-service training. New staff will be carefully helped to integrate into the school.

11. Assessment / Recording / Reporting

The Computing Co-ordinator will be responsible for assessing and recording attainment levels throughout the school in consultation with the class teacher where appropriate. These assessments will be used to provide a formal end-of-year attainment level for every child and will guide future planning.

Assessment takes place at the end of one of the units that address each of the three strands of learning. Pupils will be assessed on their understanding and application of the skills learnt during that unit.

Year 1: E-Safety [IT], BeeBot coding [CS] and Paint [DL].

Year 2: Animation [DL], 2Go coding [CS] and effective online search strategies [IT].

Year 3: Logo coding [CS], database design [DL] and e-mails [IT].

Year 4: Coding [CS], touch typing [IT] and data handling spreadsheets [DL].

Year 5: Touch typing [IT], animation coding [CS] and 3D GKCS logo design [DL].

Year 6: Game coding [CS], blogging [IT] and E-Safety PowerPoint presentation [DL].

These formal assessments are then used to assess progress against the national curriculum statements.

Where the assessment is performed online through the Purple Mash platform, all work will be stored electronically in the class folder. An archive of this folder will be kept for future reference. Where the assessment is performed in the classroom, examples of work for the different attainment levels will be stored in the Computing Co-ordinator's folder. This folder will be stored securely in a locked filing cabinet, so it is available for future reference. As the Computing Co-ordinator makes the assessments for every year group, the issue of subjectiveness will be minimised, and a more consistent approach will be achieved. An additional benefit that comes from this approach of teaching and assessing will be the Computing Co-ordinator's in-depth knowledge of the children being taught and will ensure the children progress through the curriculum.

12. Progression

The differences in the backgrounds of pupils, their interest and level of Computing provision to which they have access outside school mean the confidence and skills in using computers are not related solely to the age of the pupils. We must build on whatever skills pupils bring with them and give individuals opportunities to share their knowledge with others to further their learning. The Computing Co-ordinator must liaise with the Key Stage 1 Staff to enhance their understanding of an individuals' progression and aptitude towards the subject.

We must recognise the need for flexibility of approach and an awareness of the individual nature of learning and understanding to enable us to plan for progression.

Progression will be achieved through continued monitoring and careful planning. Computing skills will be introduced, developed and re-addressed as the pupils move up the school, and eventually leave to start Secondary School. We must make sure each pupil is fully prepared for their continued education in the Computing subject.

13. Resources

Management of the Computing resources will be the responsibility of the Computing Support Consultant in conjunction with the Computing Co-ordinator in terms of acquisition, maintenance and inventory. The school will endeavour to keep up to date with the ever-developing technological world and provide a range of equipment as and when funds allow throughout the school year.

14. Health and Safety

All staff should refer to the schools Health and Safety Policy for safety issues regarding the use of computers in school. We must always ensure we provide a safe working and learning environment. Equipment should be kept free from dust and stored securely when not in use. Teachers should check periodically for frayed wires or trapped cables. As computers generate heat and humidity, they need adequate ventilation. Laptop screens should be tilted away from windows to avoid reflections. Adequate seating needs to be provided, and it should be the correct height for the user. Always use the laptop trolleys when transporting laptops around the school. Children to carry one laptop at a time if appropriately aged, otherwise the adults in the class will distribute laptops carefully.

15. Computing Policies

15.1 Security

These are in place to ensure that the benefits provided by the use of computer systems are not compromised and that pupils, staff and the school are protected from inappropriate use. These policies are adopted from the Buckinghamshire County Computing policies and are to be integrated with the school improvement plan.

15.2 Repairs and Maintenance

If a laptop exhibits a fault, please record the details including the laptop number and the Computing Co-ordinator / Computing Support Consultant will endeavour to rectify the situation as soon as is practicable. Repairs will only be sanctioned by the Computing Support Consultant or Computing Co-ordinator.

15.3 Data Protection

Following the legislation laid down in the Data Protection Act 2018 and its implementation of the General Data Protection Regulation (GDPR), all written documents will be identified by first name initial only where appropriate. Any data files, which contain information about living identifiable individuals, will be stored in a secure location. Once this data is no longer required, it will be shredded and disposed of using an appropriate external agency.

15.4 Computer Pornography

Should any child come into possession of any pornographic materials either on software or the Internet the offending item(s) should be confiscated and the matter immediately reported to the Headteacher.

15.5 Computing Co-ordinator's Role

To consult with the Headteacher regarding monitoring and evaluation of the Computing curriculum in partnership with the Computing Support Consultant.

To consult with subject co-ordinators regarding National Curriculum coverage.

To revise the Computing policy in conjunction with the teaching staff and present the policy to the Governing body.

To arrange for the repair / replacement of computer systems through liaison with the Computing Support Consultant.

To monitor and evaluate the planning, teaching, assessment and policy for Computing.

To work with staff to build up a resource bank of materials to assist in the teaching of Computing.

Date implemented

Subject co-ordinator Mr S. P. Horton

Responsible Governor

Headteacher's signature

Chair of Governors' signature