



**Woodlane High School**

achieving success in a nurturing environment

# **Subject Policy: Computing Including E-Safety**

**Updated: September 2017**

**Next Update: September 2019**

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## 1. Introduction to the Policy for Computing

- 1.1 This policy is a statement of the aims, principles and practices of teaching and learning as they relate to Computing teaching at Woodlane. This policy supports the aims of the school mission statement, SEN policy and the whole-school approach to teaching and learning.
- 1.2 At Woodlane, we welcome the opportunity to pursue an inspiring and flexible approach to teaching and learning in Computer Science, Information Technology and Digital Literacy.
- 1.3 The 2014 National Curriculum for Computing aims to ensure that all pupils:
  - *"can understand and apply the fundamental principles and concepts of computer science"*
  - *"can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems"*
  - *"can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems"*
- 1.4 Woodlane has successfully implemented the changes in the National Curriculum.

## 2. Computing at Woodlane

- 2.1 The National Curriculum 2014 has three main strands:
  - In Computer Science, pupils learn about the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.
  - They learn how to use Information Technology to create programs, systems and a range of content.
  - Digital Literacy: Computing also ensures that pupils become digitally literate – able to express themselves and develop their ideas in contexts suitable for the future workplace and as active participants in a digital world.
- 2.2 At Woodlane this means that pupils have the opportunity to learn about how computers and computer systems work, and how computational systems of all kinds, whether or not they include computers, are designed and programmed.
- 2.3 Pupils apply their learning to the understanding of real world systems, and to the creation of useful things within and outside their own range of experience.
- 2.4 Pupils are taught how to be responsible, competent, confident and creative users of computing and digital technologies in a wide range of contexts.

### 3. Aims & Objectives

3.1 Computing at Woodlane aims to:

- Provide pupils with the skills and techniques to be effective and responsible users of digital technologies, both in school and outside.
- Provide vital experiences in the development of knowledge, understanding and technical skills.
- Help pupils to cope with the future demand for a higher level of technological knowledge and awareness; to feel comfortable with new technologies, and to be able to adapt to the rapid and constant progress in the subject.

3.2 To develop skills and knowledge, Woodlane will ensure that all pupils understand, at different levels, how the use of computational thinking and creativity can contribute to changing and improving the world we live in. We aim to provide learning opportunities to:

- Use computational thinking and creativity to understand and change the world
- Develop, in all pupils, confidence and proficiency in the use of computing both in school and outside.
- Develop awareness of 'e-safety' so that they understand how to keep themselves safe when using interactive resources or socialising online
- Give pupils the opportunity to learn about cyber bullying, and actively try to prevent it from occurring.
- Enable all pupils to use the tools and techniques of computing to overcome specific barriers to learning.
- Develop the ability to use computing appropriately and to choose software and hardware suitable for particular task.
- Encourage problem-solving and investigation.
- Provide pupils with the skills and techniques needed to enhance their learning and communication.

3.3 Our aim is for all pupils to be capable and confident about their own capability in this subject. We will support this by:

- Developing an appropriate vocabulary to help pupils understand and evaluate their own work and that of others.
- Enabling pupils to experience personal satisfaction and self-confidence derived from striving for the highest possible standard.
- Encouraging pupils to delight in a sense of independent and collective achievement.
- Exposing pupils to the social, economic, political, legal, ethical and moral issues raised by digital technologies.
- Assisting pupils to use mobile devices safely and responsibly including netbooks, laptops, tablets, consoles, smart phones and other digital devices.

**4.      Racial Equality Statement**

- 4.1      We believe that the process of ensuring equal opportunities and racial equality is central to the development of a fair, holistic learning environment in which all pupils can thrive, work and learn together. Through the Computing curriculum we work to create a learning environment where the diversity, needs and achievements of all pupils are recognised, valued and celebrated.
- 4.2      We undertake positive action to counter any form of stereotyping related to gender, race or ability.

**5.      Access and Inclusion**

- 5.1      In Computing we believe that curriculum access is principally about entitlement, equal opportunity and equal value.
- 5.2      The content and mode of delivery of the curriculum will be modified to help support all pupils in accessing the curriculum. We aim to develop increasingly independent learners and provide opportunities for pupils to extend their experience and knowledge outside their immediate world experience to help support them in preparing for future life.
- 5.3      Pupils' progress is monitored through the B Squared assessment tool to ensure their access to the curriculum is appropriately supported and, where necessary modified to reflect changing circumstances.
- 5.4      The Computing curriculum recognises that pupils have individual learning styles and interests; it aims to take into account pupils' age, cognitive, social and emotional level of functioning in the design and delivery of the curriculum offer.
- 5.5      The Computing curriculum aims to encourage a climate in which all pupils can learn to the best of their ability and where all pupils' special educational needs are addressed positively and sensitively.

**6.      E-Safety**

- 6.1      We aim to continue to strengthen our approach to e-safety and increase awareness of issues relating to cyber bullying. We will do this by giving pupils the opportunities to develop awareness of 'e-safety' so that:
- All pupils understand what constitutes unsafe activities when using electronic resources and digital devices.
  - All pupils understand how to keep themselves safe when using interactive resources or socialising online.
  - All pupils are given the opportunity to learn about cyber bullying, and actively try to prevent it from occurring.

- 6.2 We aim to engender a culture of confidence and safety in school, where all pupils feel able to turn to someone else if they are worried or troubled by experiences they have while using social networking or other resources online. We will do this by promoting safe practices and encouraging all pupils to report their concerns to a member of the school council, or a member of staff.

## **7. Health & Safety**

- 7.1 Pupils are taught to use equipment, peripherals and other devices safely in accordance with health and safety requirements. They are given the opportunity to learn about health risks associated with the regular use of computers.

## **8. Computers and the Law**

- 8.1 Pupils are taught about legislation relating, for example, to the use of personal data, computer misuse and plagiarism. They are encouraged to apply good practice to their use of computers in school and at home.

## **9. Effective Teaching of Computing**

- 9.1 Computing is taught as a discrete subject. It is also integrated in the wider KS3 and KS4 curriculum, through the use of information technology to support access to national curriculum subjects. Computing has natural links with subjects such as maths, science, and D&T and these are made explicit in the cross curriculum opportunities identified in schemes of work.
- 9.2 It is taught by a subject specialist teacher and by non-specialist teachers in years 7 & 8.
- 9.3 The school recognises the advantages of the use of Computers and digital technologies by children with special educational needs. Computing can:
- Positively address pupil's individual needs.
  - Increase access to the curriculum.
  - Enhance speech and language skills.
  - Improve pupils' motivation and offer opportunities for personal success.
  - Give pupils the opportunity to be responsible for their own learning.
  - Allow pupils to work on tasks that are manageable and achievable.
  - Support inclusion and greater independence through extracurricular access in Computing club, catch-up opportunities and lunchtime support for homework tasks.

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9.4 The Scheme of Work (SOW) for Computing has been planned to ensure that there is progression and continuity throughout the course of a year, as well as across the key stages, and that opportunities to extend pupils learning are built in to lessons to enhance learning opportunities. SOWs are regularly updated in order to address ongoing shifts in practice and continuing developments in the subject area.

9.5 A variety of teaching styles and grouping arrangements are employed depending upon the nature of the learning objectives and activities in lessons, and include whole class teaching, group activities and independent work. Activities in lessons may be described as 'plugged' (on computer) or unplugged (off computer) so that pupils understand that there are different styles of learning in the computing and digital technologies.

### **10. Differentiation**

10.1 Differentiation and progression will be ensured by using a variety of approaches, including:

- same activity but different expectations of outcome
- same theme but different levels of input
- allowing for different pace of working
- designing activities in pairs or in groups
- tasks designed to give access to pupils who are unable to access the curriculum for reasons other than the above
- dyslexia friendly lessons
- use of Paget Gorman signs, where appropriate to individual pupils

### **11. Curriculum Organisation**

11.1 There are 2 taught Computing lessons per week in Year 7 & 8, and 3 in Years 9, 10 and 11. In addition Information Technology will also be delivered within most subject areas in all year groups.

11.2 At KS3, pupils are currently taught the subject through the Entry Level Computing specification. This provides a structured way of learning and reliable form of assessment based on the new Computing curriculum.

11.3 At KS4 pupils are entered for appropriate external accreditation, currently Cambridge Nationals Award in ICT Level 1/2.

### **12. Resources**

12.1 The school resources to deliver the above aims include:

- A curriculum network including WiFi access in designated areas.
- A designated Computing base where discrete lessons are taught.
- A studio area where other subjects can use Information Technology to support teaching and learning.

## **Woodlane High School      Subject Policy for Computing –**

- A number of computers in each subject area.
- A pupil to computer ratio of 1:1.5 which is above the national average.
- Access to computers before school in the morning, and at breaktime and lunchtime.
- Scanners.
- Digital camera.
- Midi keyboards.
- Apple Mac machines.
- Interactive whiteboard to support teaching and learning.
- Colour laser printer.
- Black & white printer.
- All-in-one printer in each subject areas.

12.2 The Computing club is open at lunchtime each day, supported by the volunteer TECH team and a teaching assistant, for pupils to explore digital resources or complete subject work. A teaching assistant is available to support pupils.

12.3 Opportunities to catch up or extend learning are available to all pupils who need or want support in the subject.

### **13. Reporting Progress to Parents**

13.1 Parents have opportunities to discuss their child's progress in their child's annual review, and at parents' evenings.

13.2 Written reports are produced annually and comment on targets, progress and achievement are made. All reports are written in line with agreed school policy.

13.3 Some pupils use portable media to transfer work from home to school so that parents can look at the work they do. From year 9 pupils are encouraged and supported to use email as a way of sending and receiving work including homework tasks.

### **14. Equal Opportunities / Disability Discrimination**

14.1 It is our firm belief that all pupils should benefit from the learning opportunities that are provided in this subject. All pupils are of equal value and have unlimited potential for development in this subject.

14.2 Positive representations of computer use by pupils of different genders will be promoted. Children who are looked after can attend lunchtime clubs for supported access to the Internet, or to complete homework tasks in other subjects.

14.3 We believe that computing and digital technologies can play an important

## **Woodlane High School      Subject Policy for Computing –**

role in preparing pupils for life in a multicultural, multi-ethnic society without resorting to prejudice of any kind.

- 14.4 Computing and digital technologies should provide the opportunity to expose all pupils to realistic possibilities in the world of work and further education. We recognize that it is not culture, nationality, ethnic or gender exclusive in any way.
- 14.5 We will provide a challenging, interesting and motivating programme of study to include all pupils. We welcome the opportunity to pursue an inspiring and flexible approach to teaching and learning in KS3 and KS4, so that pupils can learn how to access up-to-date and relevant experience.
- 14.6 In working with children with special educational needs we will respond sensitively to their needs providing real opportunities to learn and appropriate learning materials, differentiated to meet a range of special educational needs. For example, those caused by physical disability, visual impairment, hearing or speech impairment, emotional, medical sensory or health conditions. A number of pupils have statements that recommend the use of specific computer hardware or software. Pupils with visual impairment use voice activated software on customised backgrounds on the school network computers, or on their own laptop.
- 14.7 Pupils with specific learning difficulties such as dyslexia or speech and language difficulties may use networked software that is designed to give specific access to curriculum tasks. Pupils are supported in lessons by skilled teaching assistants who are competent in information technology and familiar with their pupils' special educational needs.

### **15. Computing & cross-curricular skills - Literacy**

- 15.1 The Computing curriculum aims to reinforce the principles of the KS3 Strategy - Literacy and works to ensure that pupils' literacy development is supported and encouraged through:
- Identifying and reinforcing key technical words in each module of work,
  - Teaching key words in context,
  - Modelling and encouraging appropriate speaking and listening skills and encouraging pupils to interact with one another and extend and reflect on their responses,
  - Encouraging focused questioning and discussion skills,
  - Widening pupils repertoire of reading materials and use of different writing genres,
  - Enabling group/team work,

### **16. Computing & cross-curricular skills - Numeracy**

## **Woodlane High School      Subject Policy for Computing –**

- 16.1 The Computing curriculum reinforces the principles of the KS3 Strategy - Numeracy and works to ensure that pupils' numeracy development is supported and encouraged through:
- Improving pupils' reasoning and problem solving skills,
  - Using sequences of questions to foster conjecture,
  - Using an open questioning style and encouraging collaboration,
  - Allowing pupils to repeat and reprocess responses, including key vocabulary,
  - Using visualisation exercises to help pupils create and talk about mental images using precise language,
  - Using numeracy skills such as adding and subtracting to work out results.

### **17. The Role of the Co-ordinator**

- 17.1 The Coordinator has responsibility for:
- Updating the Subject Development Plan and the Curriculum Policy for Computing at Woodlane.
  - Strengthening e-safety and preventing issues with cyber bullying.
  - Ensuring that pupils become informed about e-safety risks and how to avoid them at school or off site.
  - Ensuring the school policy and schemes of work are implemented.
  - Ensuring that resources are well organised and accessible.
  - Ordering/identifying new resources, materials and equipment.
  - Monitoring standards and pupil progress in this subject.
  - Keeping up to date with developments in Computing, Information Technology and digital literacy, and disseminating information to staff when necessary.
  - Ensuring pupils achievements are celebrated through displays and performances in the school and wider community.
  - Maintaining the efficient running of the Curriculum Network, including the Medical Needs Unit.
  - Managing the workload of the part-time technician and ensuring that any problems are quickly and suitably resolved.
  - Setting up accounts for new users on the Curriculum Network including the Medical Needs Unit.
  - Identifying opportunities for interested pupils to develop technical support skills and troubleshooting techniques – TECH team.
  - Arranging a termly meeting of the TECH team to provide opportunities to make suggestions or identify improvements in the Computing base/subject area.
  - Supporting staff users of the Curriculum Network, troubleshooting and problem solving as required.
  - Supporting users of the Curriculum Network in the Medical Needs Unit.

### **18. Evaluation**

- 18.1 This policy will be reviewed by the subject co-ordinator as part of an annual review of subject development in line with the school's Continuing Professional Development and Performance Management Review process.

**Last review date:**

**Reviewed by:**

**Last SMT review:** January 6<sup>th</sup> 2016

**Reviewed by:** T Heapy