



Computing Policy

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Signature of Chair of Governors	
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Ready, Respectful, Safe

Clements Computing Policy

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through coding. Building on this knowledge and understanding, pupils are equipped to use information technology to create systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

General Aims

The national curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- 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.
- Are responsible, competent, confident and creative users of information and communication technology.

The curriculum

At Clements we teach computing through five areas that are consistent across the school.

Multimedia

Images, graphics, text, sound, animation and moving image are all aspects of the digital world we visit daily. Children are taught to create, manipulate and publish multimedia.

Programming

Children are initially taught to program robots to perform simple instructions. Later in their computing progression instructions are programmed onto a computer where simple simulations can happen.

Online

Modern children have only known a world with the Internet. Children are taught about how the Internet works as a network and also about online communication.

Online Safety

Throughout their computing learning online safety is paramount to everything the children learn. Being Internet SMART (safe, meeting, acceptable, reliable, tell) is taught throughout the school.

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Data

Children are taught to access and use information in tables, pictograms and spread sheets. This has cross curriculum links to mathematics and other areas of the curriculum.

Resources

At Clements we use a variety of resources, both online and offline. These resources are in the form of programmable robots, laptops, iPads, and other appropriate hardware and software (apps).

Additional adult support within the classroom will be used effectively and efficiently to promote the best learning outcomes for children.

Teaching and Learning

In the Early Years Foundation Stage children will use computing equipment in their self-directed play or through small group/individual work with an adult. Adults will model safe and effective use of computing equipment. It is usual for computing equipment to be used to support other curriculum learning in the Early Years.

At KS1 and KS2 a more formal approach to computing teaching and learning is adopted. Children have access to laptops and iPads to support individual, group or whole class learning. Skills are generally taught with children listening or following along on their own equipment. Assessment will take place during and at the end of the lesson against specific learning outcomes.

Planning

A progression document for computing has been recently introduced to Clements. This outlines the desired learning outcomes at each year group in KS1 and KS2. Accompanying the progression document are medium term plans that give greater guidance to each unit taught including a recommended approach to lesson sequences.

Short term or weekly plans are not required for teaching computing. However, teachers should use Interactive Slides or models to support the teaching and learning.

Assessment

Assessment will take place through looking at children's work.

Monitoring

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Monitoring of a selection of work, discussions with class teachers and children will enable the subject leader to know about standards and coverage in Computing.

The Computing coordinator will also keep up to date with changes to the computing curriculum and will notify teachers or the head teacher if changes occur.

The Computing coordinator also has responsibility for attending CPD courses (subject to agreement with the head teacher and in line with the school development plan). The computing coordinator may also provide CPD to colleagues in school or within the Multi-Academy Trust.

Health and Safety Considerations

Staff will supervise plugging and unplugging of devices onto charge and will carry out visual checks of the state of wires. The technician will be responsible for fixing broken devices.

The school has filtered broadband to help protect children and adults when in school. Both children and adults must be aware and vigilant to the fact that the filters may not always catch everything.

The school complies with all appropriate legislative requirements.

Equal Opportunities

All should have equal access to computers in order to develop their personal Computing skills and capability.

When pupils are working in groups, we endeavour to ensure that their hands-on experience is equitable.

The SENDCO and Computing co-ordinator jointly advise teachers on the computer support that can be provided to individual pupils with particular educational needs, including high ability pupils. Where appropriate an external specialist is used to assess a pupil's specific need.

Special Educational Needs

We aim to meet the needs of pupils of all abilities, including those with special educational needs to give all children equal opportunities and access to a broad and balanced curriculum.

Computer equipment can offer new opportunities for all pupils with special educational needs. For those with learning difficulties, these can include:

- Heightened motivation;
- Improvement in the accuracy and presentation of work;
- A growth in creativity;
- Heightened self-esteem;

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- New and different opportunities for success;
- Access to systems that encourage and facilitate self-correction, such as spell-checkers.

For high ability pupils these can include:

- Access to a new and challenging environment;
- New and different challenges which must be overcome;
- A growth in creativity;
- Access to systems that encourage and facilitate self-correction, and problem solving.

The class teacher and the Computing co-ordinator will work together with the Inclusion co-ordinator to ensure that we have appropriate hardware and software and that we cater for the computing needs of all pupils with special needs, regardless of ability.

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