CLAYGATE
PRIMARY SCHOOL

Computing Policy

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Computing Lead	Michael Godfrey

Computing Policy

At CPS, we understand how integral technology is to everyday lives. Our aim is to prepare the children for the ever-progressing digital world through a rich, creative and informative computing learning journey.
We want our students to be:

- Digitally literate
- Confident and safe online
- Excited and inspired by the wonders of technology
- Computational thinkers

We will equip our children with the skills they need to log on, use and understand how a computer works. The children will develop their digital literacy through using programs to create and edit digital projects, whilst enhancing their computational thinking skills through simple coding activities: helping them to understand algorithms and how to debug them.

The children will continue to develop these skills with more intricate coding systems, as well as learning how to capture, present and analyse data in effective ways. All of the learning, from the start of their digital journey to the end, is embedded with a strong teaching of online safety.

Statement from the National Curriculum:

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 programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, 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.
(Department of Education, 2013)

Intent:

At CPS, we intend that children should master Computing to such an extent that they can go on to have careers within Computing and make use of Computing effectively in their everyday lives, without being completely reliant on technology. Our children are taught to use technology responsibly and carefully, being mindful of how their behaviour, words and actions can affect others. Our children are taught Computing in a way that ensures progression of skills, and follows a sequence to build on previous learning. Our children will gain experience and skills of a wide range of technology in a way that will enhance their learning opportunities, enabling them to use technology across a range of subjects to be creative and solve problems, ensuring they make progress.

Implementation:

We follow a broad and balanced Computing curriculum that builds on previous learning and provides both support and challenge for learners. We follow a Computing scheme that ensures a progression of skills and covers all aspects of the Computing curriculum. All classes have a scheduled Computing lesson each week as well as being taught Computing aspects alongside other curriculum subjects. Children's work will be stored in assessment booklets and on Google Classroom for reference and assessment. We want to ensure that Computing is embedded in our whole school curriculum and that opportunities for enhancing learning by using technology are always taken.

Impact:

Our children enjoy and value Computing and know why they are doing things, not just how. Children will understand and appreciate the value of Computing in the context of their personal wellbeing and the technological, creative and cultural industries and their many career opportunities. Progress in Computing is demonstrated through regularly reviewing and scrutinising children's work, in accordance with our Computing assessment policy to ensure that progression of skills is taking place. Namely through:

- Looking at pupils' work, especially over time as they gain skills and knowledge
- Observing how they perform in lessons
- Talking to them about what they know.

The Computing curriculum will contribute to children's personal development in creativity, independence, judgement and self-reflection. This would be seen in them being able to talk confidently about their work, and sharing their work with others. Progress will be shown through outcomes and through the important record of the process leading to them.

Assessment:

The subject lead monitors Computing across the school to ensure coverage and that children are working towards their objectives. It is assessed formatively within lessons based on objectives and outcomes identified in planning. This is an informal process and includes open questioning, class discussion, child explanations, examples of work and mini plenary opportunities. Pupils will also have the opportunity to self and peer assess.

As well as this, the work is assessed summatively at the end of each topic in a booklet, where the pupils will complete a low stakes quiz and answer relevant knowledge based questions on the topic. Other summative assessment will include looking at saved projects on Google Classroom and Scratch coding. Assessment is used to inform future planning and target setting.

The contribution of Computing to other subjects:

Computing is a subject that links many subject areas together. For instance, internet searches are a fundamental part of research in most subjects, while skills in using authoring, spreadsheet and presentation software programs are a key element in completing most schoolwork.

Projects can be linked to other areas of the curriculum, perhaps using Humanities or Science themes, or a project-based approach. At CPS, we try to promote an integrated, cross-curricular approach, where computing content is embedded in other areas of the curriculum.

A few clear examples are: the links between algorithms and maths, looping sequences and music, data capture and maths/science, as well as online safety and PSHE.

Pupils use Chromebooks daily in the classroom to support with reading (through Accelerated Reader quizzing), as well as maths and English interventions (Lexia and Doodle Maths/English).

At CPS, we believe pupils should be given opportunities to apply and develop their computing capability by using information and communication technology (ICT) tools to support their learning in all subjects.

Resources:

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of ICT, computer science and digital literacy across the school.

Computing network infrastructure and equipment has been sited so that:
- Every classroom from nursery to Y6 has a computer connected to the school network and an interactive whiteboard with sound and video facilities.
- The school follows Kapow computing scheme to maintain consistency and high quality teaching throughout year groups.
- The school has 15x Lego WeDo 3.0 sets (compatible with Chromebooks) for use in computing lessons across UKS2.
- The school has access to Bee-Bots to support learning of algorithms in EYFS – KS1.
- Each year group from Y1 – Y6 have their own bank of 16x Chromebooks.
- Every classroom has an iPad.
- There are two roaming banks of 16x Chromebooks which are used across school under a booking system.
- Internet access is available in all classrooms.
- Each class from Y1 – Y6 has an allocated slot per week for teaching Computing as a discrete subject.
- Chromebooks are available for use throughout the school day as part of computing lessons and for cross-curricular use.
- Pupils may use ICT and Computing independently, in pairs, alongside a TA or in a group with a teacher.
- The school has a Computing technician from Eduthing who ensures technology is functional. He provides support to staff in school every Thursday.
- The school are supported by Eduthing who staff can contact on a daily basis for any urgent technological needs.
- A governor will be invited to take a particular interest in computing in the school.

Inclusion:

At CPS, we teach Computing to all children, whatever their ability. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Computing teaching, we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs.

Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, and differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

We enable pupils to have access to the full range of activities involved in learning Computing. Where children are to participate in activities outside the classroom, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

Online Safety:

At CPS, we ensure that all pupils have an awareness and understanding of online safety. This will ensure that all technology is used safely, respectfully and responsibly. A progressive online safety curriculum ensures that all pupils are able to develop skills to keep them safe online.

- Kapow scheme is used to ensure progression and coverage, and opportunities for learning about online safety are evident throughout the scheme.
- Online safety also forms part of the Jigsaw (PSHE curriculum) and is reinforced whenever technology is used.
- Safer Internet Day takes place in February to promote the safe and positive use of technology for children and the community.
- Anti-Bullying week takes place in November to promote the safe and positive use of technology for children and the community.
- Classrooms display online safety posters detailing trusted adults that children can speak to if feeling unsafe regarding online content.

The role of the Computing Lead

The Computing Lead has the responsibility of overseeing Computing within the school, including;

- Formulating and updating the policy where appropriate;
- Ensuring staff are aware of the content of the policy and that it matches classroom practice;
- Liaising with the subject's link governor;
- Ensuring appropriate resources are available and regularly updating them according to need;
- Disseminating information on Computing to both staff and pupils;
- Supporting staff with Computing where required;
- Attending Computing subject meetings and training events where appropriate;
- Offering Computing Inset sessions and promoting Computing within the school.