

Written June 2023

To be reviewed June 2024

The national curriculum for computing sets out that 'a high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world'. Computing at Clee Hill Community Academy follows a knowledge rich curriculum, which builds on blocks of knowledge to support and challenge. The three main aspects of the curriculum: Computer Science, Information Technology, Digital Literacy are taught throughout each year group, in a spiral curriculum with regular opportunities to revisit and build on learning, each time with greater complexity.

Shropshire Gateway Educational Trust Vision

As part of our Trust Network meeting and staff CPD, we have agreed on six key areas as our Trust vision:

- Students learn with technology fluidly with the same familiarity and confidence as when using traditional teaching materials and tools.
- The curriculum has increased opportunities for collaborative learning using technology
- Students used technology to build knowledge by exploring and manipulating information and ideas.
- Staff and governors use technology to its full potential, and this impacts efficiency, effectiveness, pupil progress and standards.
- Teachers use technology to respond to the interests of children while exploring real world problems.

The Computing Curriculum

Our curriculum aim is to use technology to make children more globally aware, culturally aware, self aware, have ownership for their learning and be prepared for life.



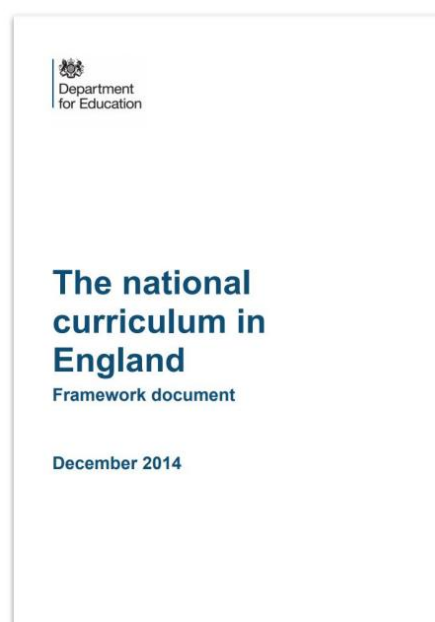
Learning style	Teaching at Clee Hill Community Academy is 'Learning Centred', meaning that each element of whole school and classroom practise is designed with an understanding of how children learn best at its heart. Through effective teaching and integration of computing technologies within Clee Hill Community
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	Academy, we are aiming to provide all children with quality first-hand experiences which will enhance their learning and prepare them for life in a world where they will encounter technology every day.
Curiosity/ Creativity/ Immersive Learning	We use creative tools to showcase pupils' learning and celebrate their strengths. Through Technology, we widen their experiences of the world and universe through the power of multi-media. In order to ignite curiosity, our aim is to provide more opportunities for self-exploration including using Technology to enhance the curriculum (i.e. virtual reality, Minecraft)
Personalised/ inspire/ excel/ fulfil dreams	We will use Technology to provide a range of tools and content that scaffold learning, engage our pupils in ways that inspire them and give them an opportunity to share what they have learnt in different ways, both individually and in group work. We will use physical computing to inspire and engage pupils (ie Sphero Bolts/ crumble/microbits) to see the Computing curriculum as purposeful. Our aim is to include more elements of real-life Technology into the curriculum - ie real time media
Wellbeing/ emotional resilience/ valuing each other	We celebrate our children's strengths by sharing it with our community (Purple Mash display boards). With the power of video, we invite the community to share some of our work (ie Cyber videos created by digital leaders). We build emotional resilience through coding and programming, focusing on the power of bug finding and fixing to show pupils how they can build their learning on failure, using it as a learning opportunity rather than an inhibitor of exploration. Our digital leaders support the school with purposeful tasks to continuously improve IT.

Our curriculum fulfils the statutory requirements for computing outlined in the National curriculum (2014) and, when used in conjunction with our RSE & PSHE scheme, also covers the government's Education for a Connected World.



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It follows the key principles of a spiral curriculum by revisiting key areas of Computer Science, Information Technology and Digital Literacy throughout KS1 and KS2 and each time a key area is revisited, it is covered with greater complexity. Upon returning to each key area, prior knowledge is utilised so pupils can build on previous foundations.

Our Curriculum has evolved from a Purple Mash curriculum to a custom-made curriculum, designed and matched to the needs of the pupils. The core coverage remains with Purple Mash, following a progressive scheme which builds on prior learning and has clear knowledge building blocks. Having reviewed the curriculum an emphasis of change was put in place to:

- Improve the progression of knowledge and skills into KS3 and
- Develop more opportunities for physical computing.

As a result Microbits, Sphero Bolts and Crumble were integrated into planning. Working with the local secondary school, we identified elements which would support the progression of Computing skills into the transition of Secondary Schools. Key elements of Computing (such as cut and pasting and using shortcuts) were identified and added to the curriculum alongside the use of Microsoft Apps such as Word and Excel. The result was a new [Curriculum Road Map](#) for Computing which is progressive and provides more enrichment opportunities.

E Safety in the curriculum

"Children have the right to enjoy childhood online, to access safe online spaces, and to benefit from all the opportunities that a connected world can bring to them, appropriate to their age and stage. As they grow older, it is crucial that they learn to balance the benefits offered by technology with a critical awareness of their own and other's online behaviour and develop effective strategies for staying safe and making a positive contribution online." [Educated in a connected world](#)

Our Curriculum focuses on elements of E Safety primarily with Purple Mash ([E safety progression](#)) alongside the Digital Matters materials (Year 4,5 & 6) whose lessons are directly linked to the strands highlighted in the 'Educated in a Connected World' document.

<https://www.internetmatters.org/digital-matters/>

The school uses the 360 degrees safe (online safety audit tool) which continually assesses current practice and provides an action plan to make improvements to E-safety. This forms key elements of our action plan for the E Safety Group and actions for the Digital leaders and the Trust E Safety Committee.

Whole school assemblies, which teach elements of E-Safety, are used as additional opportunities to teach the importance of staying safe online. E-Safety is taught to every class, every year in Computing and PSHE lessons.

All members of the school community agree to an Acceptable Use Policy that is appropriate to their age and role. A copy of the pupil Acceptable Use Policies is displayed in school to remind pupils of their agreement and for staff to refer to during computing sessions. The Acceptable Use Policy statements are reviewed annually by staff and pupils.

Computing in the Early Years Curriculum

Our EYFS lessons are a natural precursor to our Year 1 Computing plans. They are designed especially for the Reception classroom and are play-based, hands-on and fun. The EYFS planning includes units from Barefoot computing and mini mash. The barefoot Early years Computing scheme provides

opportunities for pupils to explore IT concepts around computation thinking concepts and approaches (see below). These encourage the development of problem-solving skills and can be incorporated into daily lessons and adapted for child-initiated learning.

Mini mash and physical computing sessions are taught alongside this scheme with equipment such as codapillars and beebots.



Supporting pupils with SEND through the Computing Curriculum

Computing lessons can be modified, where necessary, to meet the specific needs of individuals and groups of children. This should provide all pupils with relevant and appropriately challenging work. The three principles that are essential to developing a more inclusive lessons include:

- setting suitable learning challenges;
- responding to pupils' diverse learning needs;
- overcoming potential barriers to learning and assessment for individuals and groups of pupils.

In Computing sessions, staff will anticipate what barriers to taking part and learning particular activities, lessons or a series of lessons may pose for pupils with particular SEN and/or disabilities and consider ways of minimising or reducing those barriers so that all pupils can fully take part and learn. In some activities, pupils with SEN and/or disabilities will be able to take part in the same way as their peers. In others, some modifications or adjustments will need to be made to include everyone. For some activities, you may need to provide a 'parallel' activity for pupils with SEN and/or disabilities, so that they can work towards the same lesson objectives as their peers, but in a different way - eg using specialist software or equipment to communicate through signs or symbols. Occasionally, pupils with SEN and/or disabilities will have to work on different activities, or towards different objectives, from their peers.

For more information about how the Computing Curriculum can be adapted for pupils with SEND, see our SEND Intent in the computing curriculum document (below)

<http://chcacademy.co.uk/media/46580/areas-of-need-intent-send-computing.pdf>

Enrichment of the Curriculum

Digital leaders

Digital Leaders are responsible for:

- Supporting staff and student with the use of technology
- Leading computing improvements around the school
- Running assemblies
- Promoting e safety
- Reporting to school governors
- Acting as e-ambassadors

Digital leaders are appointed annually through an application and interview process. They represent all year groups across the school and contribute towards computing changes at Clee Hill Community Academy. The Digital Leaders meet weekly (Friday 3:15-4:15) and have a programme of activities throughout the year. This includes creating E-Safety videos, interactive Computing displays, preparation for staff or peer training or computing maintenance tasks. For more information, click [here](#).

Digital Leader Code of Practice

- I will keep my Login details and Passwords secret. I will only share them with a teacher if I am asked to.
- I will only delete my files, and none of those belonging to anyone else.
- I will only access areas to which I am allowed when working as a Digital Leader.
- I will use all technology correctly and sensibly, and only when I am permitted to do so.
- I will remain polite and sensible in all my duties, both online and offline.
- I will only send emails or eMessages with the permission of the teacher. I will never give out any personal information including my home address, phone number or email address or that of anyone else, without the permission of the teacher.

- If I see anything, open anything or read a message that I am worried about I will inform a teacher immediately.
- I will never arrange to meet someone I have only ever met on the Internet, unless I take a parent, carer, teacher or another trusted adult with me.
- I understand that the school may monitor my computer activity, and the websites I visit.
- I understand that if I break any of these rules, my privilege of being a Digital Leader may be withdrawn.
- I will always follow these rules. If I am unsure about anything, I will ask a teacher or other responsible adult before I continue.

Cross curricular opportunities/ reading in the curriculum

At Clee Hill Community Academy, we are developing our teaching of computing and are working towards ensuring that pupils have the opportunity to use ICT within the class across a range of subjects. Purple Mash has a 'Creative Context' section which links the computing skills with other national curriculum subjects. Serial Mash, which is part of the purple Mash scheme, is also a growing library of more than 50 books, many featuring popular curriculum topics. It comes with free home access, making it a brilliant way to make more books available to children at home. Computing lessons at Clee Hill Community Academy include regular reading opportunities such as: reading instructions from the screen, reading and writing algorithms 2Code, reading and writing emails to each other in 2Mail etc.

Terminology

Computing lessons have subject specific vocabulary just like other areas of the curriculum. Some of these words will be totally new perhaps, like 'debug' and others might not be new, but have different meanings in the context of computing. Lessons build on pupils' existing learning and rehearse familiar concepts with the pupils before they move on to something new. Familiarity and reinforcement are an important part of using technology enabling pupils to ensure that they are using the correct and most efficient procedures.

Assessment

To assess the computational thinking of each pupil, computing planning needs to include opportunities for formative assessments. This should not be a 'tick box' or 'highlighting; exercise but a purposeful part of the learning process - assessing whether progress is being as each stage of their journey, Possible strategies for assessment may include classroom observation notes, discussion/ questioning of pupils, mini assessments/ quizzes, etc. Each term, this data is entered onto the school assessment system.

Subject Monitoring and Review

The Computing subject leader are responsible for monitoring the standards of the children's work and the quality of the teaching in Computing. They are also responsible for supporting colleagues in the teaching of computing, working with IT consultants, running digital leaders, keeping staff being informed about current developments in the subject, and for providing direction for the subject in the school. At Clee Hill Community Academy, the Computing lead is Mrs Ceri Little. This policy will be reviewed at least every three years.

