# Clee Hill Community Academy Computing Policy

Written April 2018

To be reviewed April 2021

## Our Vision

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 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.

## Aims of the computing curriculum

The aim of the Computing Curriculum is to develop both skills and knowledge. Children are to be taught computer science and learn about programming, data, algorithms and networks. This enables children to develop an understanding of the principles of computer science. They develop computational thinking. There is also a focus on problem solving: using logic and ideas about systems, patterns (and pattern languages), abstraction and decomposition.

This policy is based on the new Computing programmes of study: key stages 1 and 2 National curriculum. The new curriculum puts a clearer emphasis on three areas of learning: Computer Science, Information Technology and Digital Literacy. Our scheme of work has been divided into 4 main subject areas which all focus on computational thinking.

- Algorithms and programming - how computers work and how to write algorithms and solve problems to eventually create a computer program.
- Data and Information- how data is represented and managed on computers.
- How computers work how to understand digital information and interact with it safely and appropriately.
- Communication and Esafety

## 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.

### 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.

## E Safety

Discussions and exploration of E-safety issues is planned into computing and PHSE sessions and is also a focus in assemblies. The school is currently 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.

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.

## Acceptable Use Policy Statements

I want to feel safe all the time.

I agree that I will:

- always keep my passwords a secret
- only open pages which my teacher has said are OK
- only work with people I know in real life
- tell my teacher if anything makes me feel scared or uncomfortable on the internet
- make sure all messages I send are polite
- show my teacher if I get a nasty message
- not reply to any nasty message or anything which makes me feel uncomfortable
- not give my mobile phone number to anyone who is not a friend in real life
- only email people I know or if my teacher agrees
- only use my school email
- talk to my teacher before using anything on the internet
- not tell people about myself online (I will not tell them my name, anything about my home and family and pets)
- not upload photographs of myself without asking a teacher
- never agree to meet a stranger

## Cross curricular opportunities

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.

Each computing topic has a 'Creative Context' section which links the computing skills for each topic with other national curriculum subjects.

## Terminology

Computing has a 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 should 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.

Long Term Planning

Cycle A

| | Autumn | Spring | Summer |
|---|---|---|---|
| Class 1 | **Exchanging and Sharing Information**<br>Understand that messages are conveyed by electronic means (telephone/email/Dojo) | **Developing ideas and making things happen**<br>Complete a simple program on a computer/Bee Bot<br>Use ICT based toys appropriately | **Finding things Out**<br>With support use a simple search engine<br>Use the computer to store information (images) |
| Class 2 | **Algorithms and programming**<br>To understand what algorithms are, how they are implemented as programs on digital devices and follow precise instructions. | **How computers work**<br>Recognise common uses of information technology beyond school.<br>**Communication**<br>Using technology safely and respectfully, keeping personal information private; identify where to go for help and support when there are concerns about material on the internet. | **Data and information**<br>Use technology purposefully to create and organise digital content.<br>**E-safety**<br>Using technology safely and respectfully, keeping personal information private; identify where to go for help and support when there are concerns about material on the internet. |
| Class 3 | **Computer networks (Roald Dahl)**<br>To understand computer networks including the internet<br>To use technology safely, respectfully and responsibly. | **Algorithms & programming (Aliens)**<br>To debug programs, solve problems, use logical reasoning to explain simple algorithms & detect errors | **Data & information (chocolate factory)**<br>Collecting and presenting data and information |
| Class 4 | **Communication and e-safety (myths & legends)**<br>To use search technologies effectively to evaluate digital content.<br>**E-safety (Artic and the Antarctic)**<br>Use search technologies to evaluate digital content.<br>To use technology safely, respectfully, responsibly; recognise acceptable/ unacceptable behaviour; identify a | **Data and information (the Normans)**<br>Collecting and presenting data and information. | **Algorithms and programming (rainforest)**<br>Explain how simple algorithms work and to detect and correct errors in algorithms and programs.<br>To use search technologies effectively. |

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| | range of ways to report concerns about content and contact | | |
| Class 5 | **Algorithms and programming (King Arthur**<br>Controlling or simulating physical systems; solve problems; use sequence and repetition in programs (input/ output); use logical reasoning to explain how simple algorithms work and to detect and correct errors.<br>**Computer networks (The railway children)**<br>To understand computer networks including the internet<br>To use technology safely, respectfully and responsibly. | **Communication (China & India)**<br>To use search technologies to evaluate digital content.<br>To use technology safely, respectfully, responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact<br>**Data and information (Kensuke's Kingdom)**<br>Collecting, evaluating and presenting information | **Algorithms and programming (fantasy worlds)**<br>Use logical reasoning to explain how simple algorithms work and to detect and correct errors. |

Cycle B

| | Autumn | Spring | Summer |
|---|---|---|---|
| Class 2 | **Data and information**<br>• Using technology to create and organise digital content.<br>**Algorithms and programming**<br>• To understand what algorithms are. | **How computers work**<br>• Recognise common uses of information technology beyond school.<br>**Algorithms and programming**<br>• To understand how algorithms are implemented as programs on digital devices and follow precise instructions. | **Data and information**<br>• Use technology purposefully to create, organise and manipulate digital content.<br>**Communication and Safety**<br>• Keeping information private.<br>• Know where to go to for help and support when there are concerns about material on the internet. |
| Class 3 | **Algorithms and programming (dragons)**<br>To design, write and debug programs. | **Communication (kings & queens)**<br>To use search technologies effectively<br>To use technology safely, respectfully and responsibly. | **Safety (Superheroes)**<br>To use search technologies effectively.<br>To use technology safely, respectfully, responsibly; recognise acceptable/ unacceptable behaviour; |

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| | | | identify a range of ways to report concerns about content and contact |
| Class 4 | **How computers work (science fiction)**<br>To understand computer networks and the opportunities they offer<br>**Communication (evacuees)**<br>Use search technologies.<br>To use technology safely, respectfully, responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact | **Algorithms and programming (Robots)**<br>To debug programs, solve problems, use logical reasoning to explain simple algorithms & detect errors | **Data and information (Jacqueline Wilson)**<br>To use technology safely, respectfully, responsibly<br>Collecting, analysing evaluating and presenting data. |
| Class 5 | **How computers work (great journeys)**<br>Using the internet for research.<br>Using technology safely, respectfully and responsibly.<br>**Algorithms and programming (Greek mythology)**<br>To design, write & debug programs. | **Data and information (Africa)**<br>Collecting, analysing, evaluating and presenting data. | **Algorithms and programming (Victorians)**<br>Design, write and debug programs.<br>**Algorithms and programming (Final project)**<br>Design, write and debug programs. |

## Inclusion

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.

## 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.