



At Chellaston Infant School, we believe that everyone should reach their full potential in a safe, fun and happy environment which promotes independence, self-worth and excellence. Everyone is a learner whose values are respected.

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COMPUTING POLICY

February 2020

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Date	Change made where?	Change description
March 21	Implementation	Long term planning added to the implementation section.
September 21	Implementation	Updated long term plan. Section updated to reflect completed scheme of work
September 21	Impact	Section updated and more detail added about online safety and how the impact is monitored.
September 21	Organisation	Updated to reflect new resources purchased in the 2020-21 academic year.
September 21	Access and inclusion	Updated to reflect new resources
September 21	Assessment and record keeping	Updated to reflect new resources/scheme of work
September 21	Home learning	Updated to show what occurred last academic year and plans for future lockdown.
September 21	Roles and responsibilities	Updated with list of responsibilities of the subject leader and HT in light of the KCSIE guidance

MISSION STATEMENT

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Come In Succeed

INTENT

Computing technology is becoming increasingly interwoven within daily life. Most jobs involve the use of computing technology in some aspect. In this developing world it is crucial that children are taught to be confident, creative users of technology, as our children may have professions or jobs that do not currently exist. At Chellaston Infant School the intent of the computing curriculum is to empower our children to be safe, confident users of computing technology. We provide opportunities for our children to use technology across the curriculum to enhance their learning and confidence. We intend for our children to be creative users of technology, as such staff will model effective use of technology to inspire and engage the children. By the end of Year 2 we aim for our children to be equipped with a range of computing skills and to be digitally literate that they can apply to a range of hardware and software.

IMPLEMENTATION

The implementation of the computing curriculum begins in our EYFS classes. Although the teaching of Computing is not explicitly stated in the new EYFS framework, we believe that computing skills are of paramount importance. Lessons begin to introduce and develop key skills linked to the KS1 National Curriculum in order to begin progression in the subject. EYFS children will begin to develop the key skills needed throughout their lives such as:

- Use a touchscreen
- Use a keyboard (digital)
- Take a picture
- Open an app.
- Turn on a tablet
- Be safe online

In the EYFS classes children have access to a range of technology such as desktop computers, tablets, metal detectors, bee bots and CD players.

As children move to KS1 computing lessons are implemented through three key areas, digital literacy, computer science and information technology.

The six KS1 National Curriculum objectives can be related to these areas accordingly:

Digital literacy	Computer science	Information technology
<ul style="list-style-type: none"> • Use technology safely and respectfully, keeping personal information private; identify where to go to for help and support when they have concerns about content or contact on the internet or other online technologies. 	<ul style="list-style-type: none"> • Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • Create and debug simple programs • Use logical reasoning to predict the behaviour of simple programs. 	<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school.

The National Curriculum objectives are implemented through 4 termly computing lessons, through which key computing skills are taught and developed. Three lessons focus on teaching the Computer Science and Information Technology aspects of the curriculum. The fourth lesson focuses on Digital Literacy and Online Safety and is taught every term.

Furthermore, a cross-curricular approach to computing will support the children in applying their skills to a variety of scenarios. The skills children learn are implemented through the use of laptops, tablets and coding robots. Children will work independently and collaboratively to reflect computing industry jobs.

	Aut 1	Aut 2	Spring 1	Spring 2	Summer 1	Summer 2
FS	<p>Introduction to using the devices in school.</p> <p>Create an Acceptable Use Policy in each class.</p>	<p>Programming – sequencing using unplugged activities</p> <p>Link to debugging</p> <p>Online bullying</p>	<p>Creating digital content.</p> <p>Using Draw and Tell app to create a picture and record what they have made.</p> <p>Online relationships</p>	<p>Data handling</p> <p>Copyright and ownership</p>	<p>Programming – sequencing using unplugged activities</p> <p>Link to debugging</p> <p>Self-image and identity</p>	<p>Opportunities to practise any skills the children have found tricky/not yet covered.</p> <p>Privacy and security</p> <p>Managing online information</p>
Y1	<p>Parts of a computer. What this looks like in real world</p> <p>Create an Acceptable Use Policy in each class.</p>	<p>Programming – understanding and creating algorithms unplugged and beebot activities.</p> <p>Link to debugging</p> <p>Online bullying</p>	<p>Creating digital content.</p> <p>Digital art – using ipads to create and edit a picture</p> <p>Online relationships</p>	<p>Data handling</p> <p>Using websites and apps to sort and classify objects by their properties</p> <p>Copyright and ownership</p>	<p>Programming with Scratch Jr. Exploring the app and the different elements.</p> <p>Self-image and identity</p>	<p>Opportunities to practise any skills the children have found tricky/not yet covered.</p> <p>Privacy and security</p> <p>Managing online information</p>
Y2	<p>Parts of a computer – understanding how they work</p> <p>What this looks like in real world</p> <p>Create an Acceptable Use Policy in each class.</p>	<p>Programming – Scratch Jr</p> <p>Link to debugging</p> <p>Online bullying</p>	<p>Creating digital content.</p> <p>Stop Motion Animation</p> <p>Online relationships</p>	<p>Data handling</p> <p>Using Purple Mash to create pictograms.</p> <p>Databases</p> <p>Copyright and ownership</p>	<p>Programming with Scratch Jr. Designing and programming.</p> <p>Self-image and identity</p>	<p>Opportunities to practise any skills the children have found tricky/not yet covered.</p> <p>Privacy and security</p> <p>Managing online information</p>

This is our long term planning for computing. The content in red is Computer Science, blue is Information Technology and green is Digital Literacy. Each year group teaches the same aspect of computing during the same term. This provides opportunity for the computing team to effectively monitor progression across the school. During Summer 2 teachers will be given opportunity to teach any content missed or that the children need further practise with.

IMPACT

Our computing curriculum results in children being engaged and inspired by the potential of computing technology. By the end of EYFS, children will have begun to explore computing technology and will have begun to develop their skills and terminology. They will be able to identify some ways in which they could be safe online. By the end of Key Stage 1, children will be confident users of technology. They will be confident at using basic computing skills to prepare them for their future learning. Children will be able to use computing technology to create and manipulate digital content, explain what algorithms are and create their own, as well as being able to debug them. They will be confident in explaining how to be safe online and what to do if they have a concern.

The quality of the children's learning is monitored by the curriculum co-ordinators and evidence is collated through pupil voice questionnaires, learning walks, lesson observations and work/planning scrutinies. Evidence collated will enable subject co-ordinators to adapt future planning to address any misconceptions or areas of excellent attainment.

COMPUTING VOCABULARY

Digital Literacy vocabulary

Digital literacy comprises online safety aspects of the computing curriculum. In the EYFS children will begin to explore with computing technology and learn how to be safe when using digital devices and content. Vocabulary will be used at an appropriate age level for the children. In year 1 and 2, children will develop their understanding further of staying safe online.

EYFS	Year 1	Year 2
Share Personal information Online safety Private/privacy Online	Share Personal information Online safety Private/privacy Online Data Identity	Share Personal information Online safety Private/privacy Online Data Identity Reputation Online bullying Copyright Social media

Computer Science vocabulary

Computer science is programming, hardware and software aspects of the computing curriculum. The vocabulary will be introduced to EYFS at an appropriate level. The children will explore with different digital devices such as bee bots to create algorithms. In year 1 children will develop their understanding of programming and what algorithms are. They will begin to use the vocabulary associated with programming. Furthermore children will be introduced to different parts of a computer and how they work. In year 2 the children will continue to develop their use of the computer science vocabulary so that they are able to use the terms when discussing what they are doing.

EYFS	Year 1	Year 2
Computer Mouse Ipad	Code Algorithm Debug	Code Algorithm Debug

Stereo Keyboard Screen Internet Beebot Robot Instructions press Forwards Backwards Turn direction	Digital device Programming Program Hardware Software Input Output Hard drive Central Processing Unit (CPU) Predict.	Digital device Programming Program Hardware Software Input Output Sequence Data Random Access Memory (RAM)
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Information Technology vocabulary

Information technology concerns using digital devices to create and manipulate digital content. In the EYFS children will use digital devices to create, play, record and move content. In year 1 children will be introduced to specific vocabulary linked to creating digital content. In year 2 they will continue to use the vocabulary learnt in year 1 and develop their understanding of the terminology so that they can use them to explain what they are doing. In year 2 the children will also further their understanding of how information technology is used outside of school.

EYFS	Year 1	Year 2
<ul style="list-style-type: none"> • Make • Paint • Play • Record • Move 	<ul style="list-style-type: none"> • Create • Digital content • Organise • Save • Store • Manipulate • Retrieve • Audio • Video • Folder • File 	<ul style="list-style-type: none"> • Create • Digital content • Organise • Save • Store • Manipulate • Retrieve • Audio • Video • Folder • File <p>Children will learn vocabulary linked to technology outside of school. These words may change depending on the topics.</p>

ORGANISATION

We recognise that computing technology is constantly evolving, as such we regularly audit resources to ensure that classes can effectively access the computing curriculum. In every classroom are interactive whiteboards that can be used with SMART software. There are 30 iPads available for classes to share that are stored in 2 caddies stored in Wise Owls. Spare iPad minis are in tablet caddy 1 and 2. These are available for staff to access whenever required. 8 new iPads have also been purchased to use in the continuous provision in the FS2 classes. 8 cables to connect the iPads to the interactive whiteboards have been purchased. Each FS2 class has one each as iPads are used as part of their continuous provision every day. Each KS1 class are sharing a cable. There are 10 Samsung tablets stored in Tablet Caddy 3. All classes have a Samsung tablet for the teacher/adults to access Class Dojo or take pictures of the children's learning. Each classroom has a Samsung charging cable and plug.

There are 3 laptop caddies storing spare laptops that staff can access when needed. Teachers and Teaching Assistants all have a laptop each that can be used for teaching and planning. Spare notebook laptops are stored in the laptop caddy for use by intervention staff. The Notebook laptops that the Teaching Assistants currently use are labelled with a number and the laptop caddy that they need to be returned to. This is to enable resources to be monitored.

There are a few Beebots in the computing cupboard. There are 15 Coding Mice. 5 Coding Mice coding boards have been purchased for groups to use in computing and programming lessons.

Some classes have access to CD players. These can be shared between classes. There are also cameras available in classrooms that can be used to record work or activities. Speakers in some of the classrooms were replaced in 2021 with better quality speakers. There are two Bluetooth speakers in school that can be used for outdoor learning and activities. Any issues with the computing technology in school can be reported to the Computing team or to the IT support team at Chellaston Academy via the following link:

<https://chellaston.roombookingsystem.co.uk/user/helpdesk>

ACCESS AND INCLUSION

We ensure that all children have equal opportunities to access the equipment. In the EYFS provision iPads are provided for children to access and explore. 30 iPads are stored in the iPad caddies to ensure that all children have opportunity to access the technology. When necessary, staff encourage children to share the computing equipment with their peers. Staff plan lesson inputs with SMART files that engage all the children equally. Other digital devices such as CD players also form part of the EYFS provision that all children have equal access to.

In KS1 children regularly access the computing resources. This may be in teams or independently depending on the task. Staff ensure that the resources are shared fairly and that all children have opportunity to access them equally.

Children with SEND may have access to specific hardware and software to support them. This may include software to assist speech and language. When planning any computing activities, teachers ensure that the hardware and software used do not have any stereotypes of gender or ethnicity. The new Scheme of Work has been produced to be inclusive to all children regardless of any barriers to learning.

Guidance and training has been offered for parents to support online safety when accessing technology at home. We understand that not everyone has access to a computer or the internet at home. As such we ensure that paper copies of work and letters are available on request.

ONLINE SAFETY

For more detailed guidance please see our Online Safety Policy.

At Chellaston Infant School we believe that online safety is of vital importance. In an era of increasing dominance and reliance of technology, children must be able use technology safely and responsibly. The online safety lessons will be developed across EYFS and KS1, providing the basis for their knowledge and understanding that they will take with them throughout their lives.

Online safety lessons are delivered every term. Staff are free to deliver the online safety lesson at any time during the term. Lesson content will sometimes link to PSHE learning. The content of these lessons are derived from the Education for a Connected World resources. The key areas of online safety are:

- Self-image and identity
- Online relationships
- Online reputation
- Online bullying
- Managing online information
- Health, well-being and lifestyle
- Privacy and security
- Copyright and ownership.

We also take part in the Safer Internet Day through all classes dedicating some time to learn about online safety during that week. A special assembly is also delivered to talk about what Safer Internet Day is and share an online safety themed story.

Staff are provided with annual online safety updates/training as per the requirements of the Keeping Children Safe in Education guidance.

HOME LEARNING

Staff regularly use Class Dojo as a means to share work and feedback for children. Parents regularly upload homework and photos of activities the children have done at home in their portfolios. During the coronavirus lockdown Class Dojo was used as a platform to support the children's home learning. Staff carefully checked any links to websites or work uploaded to ensure that it is was safe and appropriate for the children to access. Parents are able to maintain contact with school staff through Class Dojo.

In the event of absence, school closure or lockdown due to the coronavirus, staff have provided home learning for the children to access. Home learning will follow current learning in class to ensure that the children's learning is not impacted from absence from school.

In the event of a class lockdown, we will aim for the children to have daily contact with the teacher thorough submitting work through Class Dojo which is acknowledged and feedback given on the day and a daily story time via Zoom. All children's attendance at this will be expected and a register taken. Any non-engagement with home learning will initially be followed up by the class teacher through a supportive conversation with parents, SLT will pursue any support required as a result of this.

Parental access to the internet and computing technology will be assessed and supported as required in the event of home learning or lockdown.

ASSESSMENT AND RECORD KEEPING

Computing technology is used to record work and progress of the children. In EYFS, staff use EExAT to record and monitor the children's progress. Staff keep their login details secure and private. Staff may also use cameras or tablets to take pictures or videos of the children's work.

In KS1 classes, staff use their class Samsung tablets and cameras to take records of work. Photos may be printed and stuck into the children's work books or folders. Staff will try to ensure that photos used in this manner will not have other children in the pictures. Staff across school may also upload work onto Class Dojo or to the school website. Any photos published online are done so with express permission from parents and carers. Each class has a list of which children have permission for their photo to be taken and where it may be used. Staff will discuss with children the importance of online safety when using pictures and videos and the internet.

The work the children produce will be stored on the iPads. iPads are labelled so that staff can record the iPad that a pupil is using so that any work such as photos can easily be located at a later date and for evidence collecting by the computing team.

Some activities that do not use computers (unplugged activities) may involve worksheets and photos. These will be printed or filed in topic folders. The computing team will check on the work periodically to monitor this.

Online assessment and monitoring tools such as Speech and Language Link and Phonics Tracker are used by staff to record and monitor pupils' progress.

<https://speechandlanguage.support/>

<https://my.eexat.com/>

<https://www.phonicstracker.com/>

MONITORING

The computing team is responsible for monitoring the teaching and learning of the computing curriculum in school.

The computing team will:

- Check that the curriculum is being taught effectively
- Offer CPD and support where required
- Check that the resources are suitable for the curriculum.
- Produce medium and long term planning to support teachers.
- Ensure that online safety lessons are taught frequently
- Monitor any concerns regarding online safety via the online safety concern forms.

In order to monitor the computing curriculum, the computing team will:

- Observe computing lessons
- Scrutinise work
- Gather information from pupils via pupil voice questionnaires
- Assess the data across the school
- Evaluate why the attainment has improved or decreased and provide next steps to address this if necessary.
- Monitor pupil premium children's attainment
- Monitor SEND pupils' attainment

ROLES AND RESPONSIBILITIES

The computing team have responsibility to check that the computing policy and schemes of work are being taught across the school. The head teacher has responsibility for ensuring the computing team is monitoring the computing curriculum. Furthermore, the head teacher has responsibility for online safety in school, as per the KCSIE guidance. All classroom based staff have responsibility for delivering computing lessons where appropriate. The computing team is responsible for auditing resources and ensuring that there are suitable resources to teach the curriculum. It is the responsibility of the IT support services to ensure hardware and software repairs and updates are done.

Roles of the computing subject leader (Taken from Teach Computing):

- Scrutinising teachers' planning and pupils' work
- Attending relevant continuing professional development (CPD) courses to keep up to date with latest curriculum changes
- Looking for and sharing good education resources (such as apps, websites, equipment and teacher-made resources)
- Sharing examples of good practice with other schools (e.g. lessons are observed by teachers from other schools)
- Timetabling, and ensuring that all necessary and important topics are covered, meeting the requirements of the NC
- Formulating policies and sharing information about it with pupils and staff.
- Organising and managing resources including ordering equipment and managing a budget.
- Supporting other staff (e.g. sharing knowledge acquired from own CPD through staff meetings, inset training etc)
- Raising the profile of the subject in the whole school (e.g. encouraging parents and other stakeholders to get more involved and engaging them when necessary)
- Assessing levels of knowledge amongst staff and facilitating training if needed
- Analysing data, such as progress and attainment data, and ensuring that progress is on track
- Setting targets and creating an action plan
- Ensuring there is progression within the subject across the whole school

REVIEW

This policy and the computing planning will be reviewed regularly in line with any necessary developments. The curriculum team will periodically audit resources and where possible purchase new or replacement equipment. The CPD requirements of staff will also be periodically reviewed and support then provided where appropriate.