REED FIRST SCHOOL

"Learning Together, Learning for Life"

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Computing Policy

Intent:

Our intent is to teach the skills required to embrace the use of technologies and apply them across the curriculum and apply them to everyday life now and in the future.

Computing at Reed First School ensures the requirements of the National Curriculum are met across all year groups. We use materials from Purple Mash as a basis for teaching and learning.

Key stage 1

Pupils should be taught to:

- 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
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key stage 2

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output

- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Being a First School, we have purposefully identified end points for our children in Year 4 to ensure their computing journey can confidently continue as they move into upper KS2.

Our aims:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Give children access to a variety of high quality hardware, software and unplugged resources.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.
- Provide technology solutions for forging better home and school links.
- Utilise computational thinking beyond the Computing curriculum.
- Exceed the minimum government recommended/statutory guidance for programmes of study for Computing and other related legislative guidance (online safety).

Online safety has a high profile. We ensure this profile is maintained and that pupil needs are met by the following:

- A relevant up-to-date online safety curriculum which is progressive from Key Stage1 to the end of Year 4.
- A curriculum that is threaded throughout other curriculums and embedded in the day-to-day lives of our pupils.
- Training for staff which is relevant to their needs and ultimately positively impacts on the pupils.
- Keeping updated with the requirements of KCSiE.
- E-safety learning planned for every computing lesson in KS1 and 2.
- Scheduled pupil voice sessions and learning walks steer changes and inform training needs.
- Through our home/school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements. They know who to contact at school if they have concerns.
- Our online safety policy clearly states how monitoring of online safety is undertaken and any incidents/infringements to it are dealt with.
- Filtering and monitoring systems for all our online access.
- Data policies which stipulate how we keep confidential information secure.

As a school, while we use technology to support and learn, we are also clear that screen time should be limited.

We agree with guidance which is available for free on the Best Start in Life website, with key tips including:

- Under 2s: Avoiding screen time other than for shared activities that encourage bonding, interaction and conversation.
- 2 to 5-year-olds: Trying to keep it to no more than one hour a day. Avoid at mealtimes and in the hour before bed.
- Content: Choosing slow-paced, age-appropriate content. Fast-paced, social media-style videos and AI toys or tools should be avoided for young children.
- Co-viewing: Watching or using screens together - talking, asking questions and engaging with the content - is better for children's development than solo screen use.

Screen time in school will also be limited and only used for enriching experiences and where learning cannot be achieved without the use of a screen.

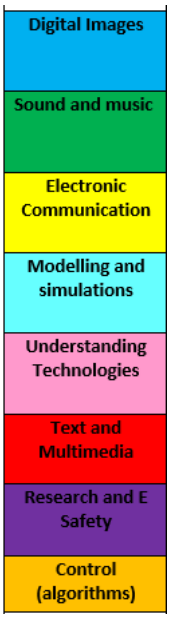
The Purple Mash scheme of work supports our teachers in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. It provides immense flexibility, strong cross-curricular links and integrates perfectly with the 2Simple Computing

Assessment Tool. Furthermore, it gives excellent supporting material for less confident teachers.

Early Years:

Since the technology strand was removed from the Understanding the World area of learning, there has been lots of discussion around the place of computing in Early Years Foundation Stage (EYFS). However, as a school, we believe that computing and technology are still vitally important in EYFS. Computing in EYFS ensures that pupils enter Year 1 with a strong foundation, builds problem-solving abilities, encourages resilience and supports other areas of learning. By integrating computing into EYFS, pupils also begin to build their digital literacy and their understanding of e-safety.

To support our play based learning in Early Years, our skilled Early Years teachers will identify and plan opportunities for all children to develop key knowledge and skills which will support them in successfully accessing the National Curriculum for Computing when they enter Year One. Our curriculum map ensures computing is part of the everyday learning offered to the children in EYFS and will be used as opportunities for learning at the level appropriate to 3 to 5 year olds.



Our curriculum map in all Key Stages including, where appropriate) the Early Years Foundation Stage, uses a progression of skills in Computing under these headings:

In addition, KS2 are taught data logging.

Key Stage One and Two:

In Key Stage 1, we challenge and support children to develop their computing skills, knowledge and understanding through units of work which are practical, IT based and relevant to their lives and other curriculum areas. For example; in Key Stage 2, children are taught how to use data loggers in computing lessons and will then apply their learning to use the technology in other areas such as science.

Some units are taught once over the key stage, others are taught twice using different stimuli and some are taught continuously over two years. For example, in Key Stage 1, keyboard skills are developed continuously to enable the children to confidently access the full curriculum without key board speed being a barrier to use.

Every unit in computing across Key Stages One and Two has a planned learning journey with key questions that the children will be able to answer at the end of the carefully planned sequence of lessons and activities

Our Curriculum map shows the detailed progression of skill and the areas of computing studied.

Additional opportunities to engage with technology are used, such as coding days through BUPA.

Resources

At Reed First School, we are well equipped with chromebooks for the children to use during computing lessons and across the curriculum. Every child, from reception to year 4 has their own GSuite for Education account. Gsuite is a suite of tools that allows students and teachers to collaborate in real-time to create documents, presentations, surveys, spreadsheets and even internal websites. Mathletics and TT RockStars are also used in school and at home to provide online resources for Maths and times tables.

In addition to Purple Mash online resources, we invest in equipment to ensure a full and broad curriculum can be taught keeping up to date with the relevant technologies of today. For example; data loggers, I-Pads for photographs, programmable robots and touch screen SMART boards in every classroom.

Teaching staff are regularly asked to review the equipment needed to successfully teach each unit and use of Purple Mash CPD support is available.

Assessment KS1 and 2

During each lesson, it will be made clear to the children which skills they will be using. Understanding of the skills taught during the units of work and in application across the curriculum will be recorded in individual assessment sheets which outline the end points for each key stage. This will mean that a judgement can be made as to whether the children have met age related expectations.

Differentiation and Special Educational Needs

All children are taught the Computing curriculum. We recognise the fact that we have children of differing ability in all our classes, and so we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies which are differentiated by task, expected outcome, the grouping of the children, resources provided and/or support from peers or adults. Tasks will be adapted where needed to ensure computing skills can be met and that barriers from other areas, for example, reading or writing do not stop children from becoming technology literate.

Recording pupil knowledge will be seen in different ways across the curriculum, often using computing to support those with SEND, for example: recording voices, visual on screen presentations, use of Clicker. Children have access to 'Technology stations, where they can choose resources to support their learning and the recording of their ideas.

Inclusion and the Computing Curriculum

This policy relates to the school's philosophy for promoting equal opportunities. Children, irrespective of ability, race or gender, are given full access to the Computing curriculum. We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities.

Where home learning may require technology which parents or carers feel unable to access confidently themselves, time will be given in school to support children and their families to access the programs needed. For example, using Google slides to prepare a presentation to an audience as part of our home learning English Curriculum.

We also actively support families with loans of devices to ensure the use of technology at home to engage in learning is equal for all.