Intent

Computing and technology influences so much of our everyday lives. In today's ever-changing world, it is imperative to know how to use different types of technology. Almost all aspects of society use technology, as a result, our students must be well-equipped to be able to learn how to use and implement new technologies. We must also ensure that all pupils are taught how to use technology – particularly online – safely.

At Grangefield, we provide opportunities for children to play with new devices, software and programs. The curriculum is split into 5 areas; General ICT skills, Digital Citizenship & E-safety, Word & Data processing and Programming, Multimedia, Communication & Collaboration. In some areas of the curriculum (Digital Citizenship & E-safety and Programming) we follow a scheme of work. These schemes, Common Sense Education and Code.org, allow teachers to deliver a consistent curriculum.

In the other areas of the curriculum, the teacher can be more creative and deliver the unit of work in a different context. Still building upon what the children have been taught, teachers are given more freedom on how to teach it. This allows more opportunities for cross-curricular lessons. Teachers can use this freedom to help the children produce something towards their end of topic project.

We allow children and teachers to use technology creatively through our bespoke curriculum. Each year children will explore different areas of Computing; General ICT skills, Digital Citizenship & E-safety, Word & Data processing and Programming, Multimedia, Communication & Collaboration. Students will build upon the solid foundations of what they have been taught previously.

The intent of our computing curriculum is:

➢ To enable children be computer literate when they leave Grangefield.

➢ To enable children to learn about a new technology or program efficiently.

➢ For children to be aware of the potential jobs in computing.

➢ To enable children to be creative when using technology and to use it to present their work.

➢ For children to know how to be safe online and how to report any issues.

Computing comes into different areas of **EYFS**;
➢ Mathematics
➢ Literacy
➢ Understanding of the world
➢ Communication and language
➢ Expressive arts and design

By the end of **Key Stage 1**, pupils should be able to;

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguousinstructions
- 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.

By the end of **Key Stage 2**, pupils should be 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.

Implementation

Computing can be found in all areas of the curriculum; it can be used to present work, for research on a particular topic or to use a website/app to consolidate learning. This is why it is essential that all children feel confident in using devices, websites and apps to enable them to access the wider curriculum. However, computing is also its own separate subject.

In EYFS, children are exposed to different technologies, apps and websites. Through continuous provision they are able to explore some of these technologies, for example a camera on a tablet to take pictures. Pupils will be aware of technology in the world around them and that they play a huge role in our lives. They will also be able to identify technology that they use at home.

Our bespoke curriculum, which is used throughout KS1 and KS2, supports all of the requirements of the National Curriculum. Much of the curriculum online-based, this is due to the fact that we have 80 Chromebooks in the school. The Chromebooks are our main device used to deliver the curriculum, however, we are adding new technology each year to help compliment the Chromebooks and the curriculum. A great example of this is our introduction of our Blue Bots – these can be used with the Chromebooks or by themselves.

Pupils have the opportunity to join a KS2 coding club. This club runs for one term and provides a creative environment for them to produce a coding project based on their own interests.

Each unit of computing is assessed by class teachers continuously during lessons. Teachers use the progression map to help identify whether a child is on track for their age related expectations. The majority of work will be saved onto the pupils G-Drive and is accessible to their class teacher, SMT and the computing subject lead.

Impact
Student and teacher voice is integral for measuring the impact of our computing curriculum. The aim is for children to understand the importance of what they are learning and to enjoy their computing experiences within school.

- Children will achieve age related expectations in computing and will be able to apply the knowledge that they are taught.
- Children will be keen to showcase any work they have produced using technology/computers.
- Children will develop an understanding of computing in the world and its impact on themselves as well as society.