"Let Your Light Shine"

Frieth C.E.C. School

Computing Policy

Date Implemented: April 2020

Member of staff responsible: Matthew Burn

Designated Governor: David Bruce

Headteacher's signature .....

Review date: February 2024	signed:	date:
Review date:	signed:	date:
Review date:	signed:	date:
Review date:	signed:	date:

Frieth C.E.C. School

COMPUTING Policy

Computers are incredibly fast, accurate and stupid. Human beings are incredibly slow, inaccurate and brilliant. Together they are powerful beyond imagination. *Albert Einstein*

Frieth School Vision statement

'…Your light must shine before people, so that they see the good things you do.'

Matthew 5:16

We shine a light on individual success and open the doors to our future global citizens by developing potential without limitations.

Values:

- These are the Christian Values that both drive and are reflected in the teaching and learning at our school.

Kindness

Honesty

Creativity

Responsibility

Resilience

Respect

COMPUTING Vision Statement:

Developing the skills, creativity and enthusiasm to live and thrive in a world increasingly dependent on technology and computers.

Intent

We offer a structured sequence of lessons, helping teachers to ensure that they have covered the skills required to meet the aims of the national curriculum. The content allows for a broad, deep understanding of computing and how it links to children's lives. It offers a range of opportunities for consolidation, challenge and variety. This allows children to apply the fundamental principles and concepts of computer science. They develop analytical problem-solving skills and learn to evaluate and apply information technology. It also enables them to become responsible, competent, confident and creative users of information technology.

Technology is everywhere and will play a pivotal part in students' lives, therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to be creators not consumers and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology (especially social media) to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. Building our knowledge in this subject will allow pupils to effectively demonstrate their learning through creative use of technology

We recognise that technology can allow pupils to share their learning in creative ways. We also understand the accessibility opportunities technology can provide for our pupils. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply their knowledge creatively which will in turn help our pupils become skillful computer scientists.

We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible. We want our pupils to be fluent with a range of tools to best express their understanding and hope by Upper Key Stage 2, children have the independence and confidence to choose the best tool to fulfil the task and challenge set by teachers.

Key Stage 1 National Curriculum Expectations

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 National Curriculum Expectations

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.

Implementation

Computing is not an end in itself but the means to many ends that will enrich and deepen many aspects of the children's teaching and learning across the all subjects and as such is woven throughout both our EYFS and Four-Year Creative Curriculum

Each lesson contains revision, analysis and problem-solving. Through the sequence of lessons, we intend to inspire pupils to develop a love of the digital world, see its place in their future and give teachers confidence. Cross-curricular links are also important in supporting other areas of learning. Our lesson plans and resources help children to build on prior knowledge at the same time as introducing new skills and challenges. In KS1, the focus is on developing the use of algorithms, programming and how technology can be used safely and purposefully. In KS2, lessons still focus on algorithms, programming and coding but in a more complex way and for different purposes. Children also develop their knowledge of computer networks, internet services and the safe and purposeful use of the internet and technology. Data Handling is featured more heavily in UKS2. Skills learnt through KS1 and LKS2 are used to support data presentation.

Computing will be taught weekly however there will be many more opportunities for children to develop and deploy their computing skills across the curriculum.

SEND

We have created a comprehensive Computing scheme of work for students with Special Educational Needs and Disabilities (SEND), in particular those working below age expectations. It includes activities for a range of abilities, from those students working on a developmental curriculum below national curriculum levels, to students working at Key Stage 1 level. It also includes units to stretch more able students.

The scheme of work has been designed for teachers to find activities to suit students within a mixed ability class, and to be taught via wider curriculum areas. Each unit contains a large

number of suggested activities, links to resources, online safety discussion points and progression statements. The scheme covers the breadth of the National Curriculum.

Health and Safety -Frieth CEC School takes all necessary measures to ensure both staff and pupils are aware of the importance of health and safety.

Both staff and pupils are trained to handle electrical equipment correctly including how to power off and on. Pupils are reminded about the dangers of electricity and the danger signs to look out for. Adequate displays and warning signs are strategically placed around the school to reinforce health and safety.

Impact

Learning in computing will be enjoyed across the school. Teachers will have high expectations and quality evidence will be presented in a variety of forms. Children will use digital and technological vocabulary accurately, alongside a progression in their technical skills. They will be confident using a range of hardware and software and will produce high-quality purposeful products. Children will see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They will be confident and respectful digital citizens going on to lead happy and healthy digital lives.

We encourage our children to enjoy and value the curriculum we deliver. We will constantly ask the WHY behind their learning and not just the HOW. We want learners to discuss, reflect and appreciate the impact computing has on their learning, development and well-being.

Finding the right balance with technology is key to an effective education and a healthy life-style. We feel the way we implement computing helps children realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. We encourage regular discussions between staff and pupils to best embed and understand this. The way pupils showcase, share, celebrate and publish their work will best show the impact of our curriculum. We also look for evidence through reviewing pupil's knowledge and skills digitally through tools like Teams, One Drive and Seesaw and observing learning regularly.

Progress of our computing curriculum is demonstrated through outcomes and the record of coverage in the process of achieving these outcomes.

Assessment

The Frieth Computing progression document enables staff to understand what pupils have learnt before, what they need to learn now and what they will learn next. (See Appendix 2)

Summative Assessment

At the end of each school year, pupils will be assessed within one of the following bands: Pre-Key Stage (PKS); Working Towards the curriculum (WT); Working at Expected (EXP); Working at Greater depth (GDS).

Reporting

A final summative assessment for Computing will be reported to parents within the annual school report.

Monitoring

The Computing subject leader is responsible for the monitoring of Computing teaching, learning and outcomes across the school. In the event that there is no Computing lead, the responsibility devolves to the Senior Leadership team.
Computing is monitored throughout all year groups using a variety of strategies such as planning scrutinies, lesson observations, performances and pupil interviews.

Linked policies:

Curriculum policy
Learning and Teaching Policy
Assessment policy
Health and Safety Policy
Equal Opportunities policy
SEND policy