Computing Policy

March 2024

Approved by the Governing Body Strategy Group 14/03/24

This Policy is due for renewal in Term 4

2025-26

COMPUTING POLICY

OF

GODINTON PRIMARY SCHOOL

SECTION ONE: INTENT

INTENT (as displayed on our school website)

At Godinton Primary School, our intent is that our computing curriculum will give our pupils the life-skills that will enable them to embrace and utilise new technology in a socially responsible and safe way in order to flourish. We want our children to become competent, confident and creative users of information and communication technology to a level suitable for the future workplace: they will grow into active and resourceful participants in a digital world. We aim to deliver a curriculum from which children are equipped to understand and use information technology to create programs, design system and solve problems, using computational thinking to enable them to do this. Children who can think computationally are better able to conceptualise, understand and use computer-based technology, and so are better prepared for today's world and future.

We want the use of technology to support learning across the entire curriculum and to ensure that our curriculum is accessible to every child.

As part of our Guiding Stars curriculum, Computing is the leading light subject for '**Independence**'.

Within our Computing curriculum, the children learn how to have greater faith in our own capabilities so that they are happy to have a go and try new things. They become systematic and careful when working through or with different programs, apps and equipment and learn how to follow instructions carefully. The children learn how to work through plans with confidence and can amend their ideas or approach to find a better way forward. The children develop their understanding of the steps they can take to work something through themselves and when they need to ask for help.

SECTION TWO – TEACHING AND LEARNING STYLE

4.1 As the aims of Computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. While at times we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in Computing is for individuals or groups of children to use technology to help them in whatever they are trying to study. So for example, children might research a history topic by using the Internet or show their knowledge of a topic by creating an online quiz using an app. Children who are learning science might use a data logger to monitor environmental conditions. We encourage the children to explore ways in which the use of Computing can improve their results, for example,

how a story can be recreated using a puppet show app, how a piece of writing can be edited or how the presentation of a piece of work can be improved by moving text about etc.

4.2 We recognise that all classes have children with widely differing computing abilities. This is especially true when some children have access to computing equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks);
- grouping children by ability in the room and setting different tasks for each ability group;
- providing resources of different complexity that are matched to the ability of the child;
- using teaching assistants to support the work of individual children or groups of children.
- Provide support mechanisms to support individual children (screen prompts, keywords for searching)

SECTION THREE: CURRICULUM STRUCTURE AND PLANNING

3.1 Our Curriculum implementation is below. This information is also provided on our school website:

IMPLEMENTATION

At Godinton Primary School, our whole curriculum is shaped by our school vision which aims to enable all children, regardless of background, ability, additional needs, to flourish to become the very best they can possibly be. Our curriculum has been designed to ensure that all elements of the National Curriculum are taught throughout KS1 and KS2. Our scheme of work is supported by a clear progression of skills. Our scheme of work, alongside the progression document, ensures that skills and knowledge are built on year by year.

To ensure a broad range of skills and understanding, Computing is taught across three main strands: digital literacy, computer science and information technology. As part of information technology, children learn to express themselves and develop their ideas through ICT; for example writing and presenting as well as exploring art and design using multimedia.

Within digital literacy, children develop practical skills in the safe use of ICT and the ability to apply these skills to solving relevant, worthwhile problems for example understanding safe use of internet, networks and email.

In computer science, we teach children to understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation. They also learn to analyse problems to computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.

We also teach a progression of Computing vocabulary to support children in their understanding. At Godinton, we give children access to a wide range of good quality resources and provide cross curricular opportunities for children to apply their Computing knowledge and skills.

At Godinton Primary School, we believe it is essential to prepare our children for a digital world and that pupils should learn, from an early age, how to stay safe online. E-safety is taught as a discrete unit within Computing lessons each year, as well as it being integrated throughout other topics. At the start of each academic year, our safer use of the internet rules which are differentiated by age, are shared with the children. As a whole school, we participate in the National Safer Internet Day and undertake additional lessons to support knowledge and understanding in this area. We also feel it is important to keep parents updated in this area too. We provide a wealth of E-safety information on our school website which parents can refer to in order to promote E-Safety at home.

3.2 The school uses the national scheme of work for Computing as the basis for its curriculum planning. We have also developed our own scheme of work based around different themes:

Programming

Networks and the Internet

Text and multimedia

Digital images

Sound and music

Handling information

Modelling and simulations

Understanding technologies

Research and e-safety

3.3 We carry out the curriculum planning in Computing in three phases. The long-term plan maps the Computing topics that the children study in each term. Our long-term Computing plan shows how teaching units are distributed across the year groups, and how these fit together to ensure progression within the curriculum plan.

3.4 Class teachers create flipchart planning to provide greater detail as to the learning objective for each lesson and the main content. They will also take into account: how to engage the children in the lesson, resources required, how children will be organised, how the children will if appropriate, differentiation (if appropriate) and particular vocabulary (if appropriate), as well as how adults may be used to support learning. This planning is linked to other areas of the curriculum where possible, making it part of our creative curriculum.

3.5 The topics studied in Computing are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

SECTION FOUR: FOUNDATION STAGE

Although Computing no longer appears in the statutory EYFS curriculum, at Godinton we recognise it as an important learning tool across all areas of the curriculum. In our Reception classes, children are given the opportunity to regularly visit our well-equipped computer suite where they develop their computer literacy in a way that is fun and engaging. Children enhance their mouse control skills by exploring the Purple Mash platform; drawing and colouring pictures, dragging puzzle pieces, and playing simple games. They learn how to log themselves onto a computer and how to select the correct program.

Activities are carefully linked to the learning that is taking place in the classroom and is related to the children's interests where possible. In the classroom, an interactive whiteboard, BeeBots and ipads are readily available for children to utilise during their investigation and discovery sessions, alongside everyday technology such as keyboards, old phones and old cameras to be used in imaginary play. Our children partake in National Internet Safety Day and learn how to safely use computing equipment throughout the year.

SECTION FIVE – THE CONTRIBUTION OF COMPUTING TO OTHER CURRICULUM AREAS

5.1 Computing contributes to teaching and learning in all curriculum areas. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics and science while the Internet proves very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way.

5.2 English

Computing contributes to the teaching of English. Through the development of keyboard skills and the use of computers, children learn how to edit and revise text. They have the opportunity to develop their creative writing skills by using various applications on the iPad to orally create and retell stories. They learn how to improve the presentation of their work by using desk-top publishing software as well as publishing software on the iPads.

5.3 Mathematics

Many Computing activities build upon the mathematical skills of the children. Children use Computing in mathematics to collect data, make predictions, analyse results, and present information graphically. They also acquire measuring techniques involving positive and negative numbers, and including decimal places.

5.4 Personal, social and health education (PSHE) and citizenship

Computing makes a contribution to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of Computing, and they also gain a knowledge and understanding of the interdependence of people around the world.

SECTION SIX – TEACHING COMPUTING TO CHILDREN WITH ADDITIONAL EDUCATIONAL NEEDS

6.1 At Godinton Primary School we teach Computing to all children, whatever their ability. Computing forms part of our school curriculum policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children with learning difficulties. In some instances the use of Computing has a considerable impact on the quality of work that children produce; it increases their confidence and motivation. When planning work in Computing, we take into account the children's individual targets.

SECTION SEVEN – ASSESSMENT AND RECORDING

7.1 Teachers provide feedback to the children on a regular basis and through class/group flip chart feedback (see marking and feedback policy)

7.2 Overall summative judgements shall be given once a year by class teachers. The teacher assesses against key curriculum and provides a 'best fit' for each child, i.e. whether they are working below age-related expectations, at age-expected or are exceeding the age-related expectations. This data shall be recorded in the End Point Assessment sheets for each year group.

7.3 The Computing subject leader will analyse this and **end of year data** and will use this to inform the other teachers as to how the children in school are progressing from year to year.

7.4 At Godinton Primary, we issue three pupil reports per academic year. Effort in Computing is reported to parents three times per year with pupil attainment shared with parents in the Spring and Summer reports.

SECTION EIGHT – RESOURCES

8.1 The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by

investing in resources that will effectively deliver the objectives of our computing curriculum and support the use of IT, computer science and digital literacy across the school.

8.2 We have a wide range of computing resources to support teaching and learning including a networked computer and multimedia interactive whiteboard in each classroom, a fully equipped air-conditioned Computing suite with 31 networked computers, a set of 10 mobile laptops with wireless internet access, and a set of 30 ipads. High speed broadband is available in all areas throughout the school.

8.3 To make effective use of these facilities we have a range of software available including Microsoft Office, Purple Mash (2Simple's online offering) , as well as programming, graphical modelling, data logging, stop-motion animation, photographic editing suites, and multimedia software. We use of range of devices to complement our software packages including visualisers, webcams, digital voice, video and still recorders, dataloggers, ipads, digital microscopes and programmable devices such as Bee-Bots, Pro-Bots and Lego NXT Robots.

SECTION NINE – CHILDREN IN CARE

As for all our pupils, Godinton Primary School is committed to helping Child in Care (CIC) to achieve the highest standards they can. To this end staff will ensure that in delivering the curriculum they set suitable learning challenges of CIC, respond to the diverse learning needs of CIC, and help to overcome the potential barriers to learning and assessment for CIC. The Computing coordinator will support staff in doing this within this subject.

SECTION TEN– EQUALITY STATEMENT (Refer also to specific policies for equal opportunities and racial equality)

At Godinton Primary School, we are committed to ensuring equality of opportunity for all members of our school community irrespective of race, religion or belief, gender, gender reassignment, disability, sexual orientation, age, pregnancy or maternity, marriage and civil partnership or socio-economic background. We are determined to develop a culture of inclusion and diversity in which all those connected to the school feel proud of their identity and ability to participate fully in school life.

We tackle discrimination through the positive promotion of equality by challenging stereotypes and by creating an environment that champions respect for all. At Godinton Primary School, we believe that diversity is a strength that should be respected and celebrated by all those who learn, teach and visit us.

All school policies have an explicit aim of promoting equality and will be reviewed in terms of their contribution and effectiveness in achieving this aim.

SECTION ELEVEN – MONITORING AND REVIEW

This policy is reviewed every two years.