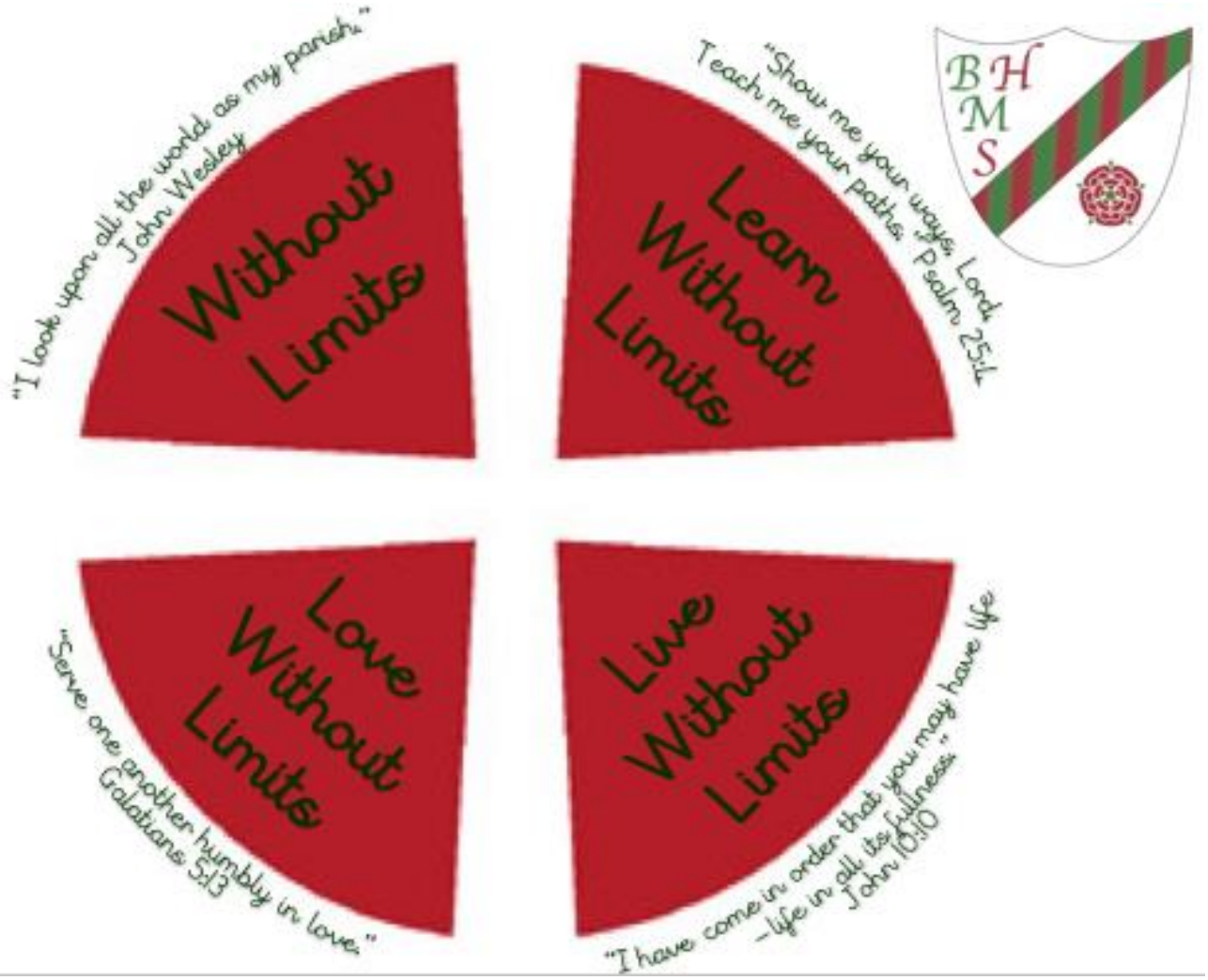
Bedford Hall Methodist Primary School Computing Policy

Date Written: September 2021
Review Date: September 2023
Chairs Signature:

Mission Statement

Bedford Hall Methodist Primary School strives to provide a caring environment in which every individual can achieve his or her full potential.

To achieve this we wish to create a happy secure and purposeful atmosphere throughout the school, which is conducive to learning and high standards, and is based on Christian values.



Safeguarding Statement

At Bedford Hall Methodist primary School we recognise our moral and statutory responsibility to safeguard and promote the welfare of all children.

We work to provide a safe and welcoming environment where children are respected and valued. We are alert to the signs of abuse and neglect and follow our procedures to ensure that children receive effective support, protection and justice.

The procedures contained in the Safeguarding Policy apply to all staff, volunteers and governors.

1. Computing Curriculum Intent

At Bedford Hall Methodist Primary School we value the contribution that technology can make for the benefit of all pupils, staff, parents and governors. We strive to provide safe opportunities in all subjects to motivate and inspire pupils and raise standards across the curriculum. Everyone in our school community will become lifelong learners equipped to meet developing technology with confidence, enthusiasm and the skills that will prepare them for a future in an ever-changing world.

2. Our Computing vision encompasses the following aims:

- To enable our staff and pupils to become competent, confident and independent users of technology
- To provide pupils with the computational skills necessary to become independent learners
- To develop a creative and cross-curricular approach to the teaching and learning of Computing
- To promote safe and sensible use of technology through a dedicated e-safety curriculum.
- To use new technologies to enable good quality teaching and learning to take place
- To ensure appropriate and equal access to technology for all children regardless of age, gender, ethnicity or ability
- To utilise learning platforms such as Purple Mash, Timestables Rockstars and Reading Planet in order to provide extended and personalised learning opportunities through the use of technology
- To commit to the Continuous Professional Development of Computing
- To ensure our pupils take advantage of the ever quickening pace of technological change
- To provide pupils with an understanding of the role technology plays in everyday life at present and its importance in the future
- To give children opportunities to access the Computing Curriculum through home-school links via learning platforms such as PurpleMash and Office 365

3. Inclusion

- Pupils with special educational needs should be able to use the technology to encourage their independence and develop their interests and abilities.

- All pupils are to have access to the use of technology regardless of gender, race, cultural background or any physical or sensory disability. Pupils with learning difficulties can be given greater access to the whole curriculum through the use of technology.

- Research shows that more boys than girls use computers. Access to computers will be monitored between sexes to ensure equality and opportunity.

- The youngest pupils in the Nursery and Reception classes begin to use and learn about Computing as soon as it is practicable after entering school, so that they gain confidence in using computers as soon as possible.

- Pupils who are noted for being More Able within the area of Computing and technology are given additional opportunities to develop the understanding of technology and are both supported and challenged within the context of a Computing lesson and through targeted group activities. Children are targeted to develop their programming and coding skills through our Computing Club after school opportunities. Alongside this, children who are recognised as being gifted in Computing are asked to mentor and share their skills with other pupils within their peer group – the aim of this is to help transfer their skills to a wider context. See point 8.

- At Bedford Hall Methodist Primary School we also use Digital leaders to help support both pupils and teachers within the teaching of Computing. This is done both through cross-curricular lessons as well specific computing structured lessons.

4. Implementation

Good practice in the use of technology in the curriculum:

In computing lessons

- Pupils are timetabled for at least one session a week for a computing lesson, which covers the skills and experience required to develop computing capability through the school's Scheme of Work– with an additional emphasis on e-safety (delivered at the beginning of each half term).

In learning and teaching across the curriculum

- Staff will use the Purple Mash Computing Scheme of work to teach the curriculum and will follow Chris Quigley's milestones to ensure that progression is clear throughout each year group.

- There are Interactive Touch Screen large TVs and Digital Visualisers in every classroom, used throughout the day for whole class teaching in all subjects. Touch Screen large TVs are also used within group activities by teachers or TAs or for collaborative activities by pupils. Touch Screen large TVs are also regularly used by pupils themselves to participate in the class or group lesson, or demonstrate what they have learned or to display work they have done.

- There are Laptops, Ipads, Sphero balls, Beebots and Lego Education to be used within computing lessons. These are used to teach the computing

curriculum appropriately and effectively. They can be used in computing lessons and can be used to create cross-curricular links.

- The intention to use such resources appears in all teachers' daily and topic planning, and is marked clearly.

- Subject leaders regularly monitor teachers' planning for computing, and observe the use of technology in lessons. Subject leaders also ensure that technology is used appropriately and throughout the teaching of their subject areas, monitoring of this takes place regularly.

- Teachers use the agreed assessment system to assess children's progress and understanding in computing. This is completed at the end of each unit and next steps are identified. These are kept in teachers' computing folders.

5. Developing and monitoring the Computing curriculum

The Head teacher and Computing Subject Leader are responsible for ensuring there is a Computing policy and that it is implemented. The Computing Subject Leader is responsible for mapping the Scheme of Work and for liaising with other subject leaders to map the delivery of further technology use in learning and teaching across the curriculum.

Members of the SLT will monitor learning and teaching in Computing as they do for literacy and numeracy. The Computing Subject Leader will also be involved in monitoring class teachers' curriculum planning and teaching. The Computing Subject Leader will carry out an audit of staff skills annually and support and training will be provided where necessary.

All staff will regularly update their displays and ensure that the use of technology is evident with classroom and curricular displays. Each class will also have an online safety display with key learning about e-safety.

6. Home Links

The children have access to a wide variety of resources that enable them to continue their learning of computing and technology at home. Currently the children have access to; Purple Mash, Office365, Reading Planet and Timetables Rockstars. Through these, the children are able to complete set tasks and save their work virtually so that it can be shared both in school and at home with teachers and parents

We have a School Twitter account, and class Twitter accounts.

Communication between home and school can also be carried out through the Class Dojo and Tapestry online platforms.

7. Identifying More Able pupils in Computing

All staff have high aspirations to challenge and motivate children of all abilities. In Computing, pupils who are identified as more able are challenged

within lessons in school, and are additionally offered external workshops and challenges; as well as encouraged to attend extracurricular activities.
To help identify pupils who are more able, the assessment guidance at the end of each Purple Mash unit will be used, specifically the 'exceeding' objectives, to identify what this might look like within Bedford Hall Methodist Primary School.

8. This Policy

The Computing subject Leader and the Headteacher will be responsible for ensuring the effective monitoring, evaluation and review of this policy.

10. Related Documents in School

- Annual Computing Action Plan
- NAACE Self-review framework online tool (ICT Mark)
- Computing Curriculum Map
- Social Media Policy
- Staff Skills audit
- Internet Acceptable Use Policy
- Internet Acceptable Use Agreements (Staff/Pupils/Volunteers)
- E-safety policy

End of key stage expectations

Key Stage 1

By the end of Key Stage 1 children 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 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; know where to go for help and support when they have concerns about material on the internet

Key Stage 2

By the end of Key Stage 1 children should be able 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 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 accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- Use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour

Glossary of Terms

Abstraction
This refers to hiding the complexity of tasks to suit the understanding of the user. For example, for you to use a calculator you only have to press buttons in order to receive the correct answer, however the person that built the calculator understands how it works underneath.

Algorithm
An algorithm is a set of instructions that we complete in order to achieve a task. You could write an algorithm to complete mundane tasks such as making a cup of tea or to complete complex tasks such as calculating the odds that a team will win a football match. In computing an algorithm refers to the set of instructions that a computer follows in the order in which they are given.

Binary
Binary is the language computers use. It is a series of 1s and 0s and is also used in mathematics.

Coding
Coding is putting information and commands into a program, making it possible for u to create software, apps and websites.

Communication technology
Equipment that we use to communicate with, such as a mobile phone or tablet.

Computational logic/thinking
Computational logic is a term that describes the decision-making progress used in programming and writing algorithms.

Debug
Debugging is checking the code in a computer program to ensure it works, and changing it if it doesn't. When writing a computer program things will often go wrong. When writing a program you have to test and debug your program to ensure that it produces correct results.

Decomposition
Decomposition is the process by which a large, difficult problem can be broken down into a series of smaller, simpler problems, thus making the overall problem easier to solve.

Hardware
Hardware is the physical part of a computer, which uses electrical signals to complete the calculations needed to make software run.

Input
Information that goes into the computer

Logic
When making any decision a certain amount of logic is involved; for example, when deciding what to wear in the morning, you make a logical decision based on the season, weather and any number of other factors. **Computational logic** is used to allow a program to decide what to do and when. For example you may write code that says: “When the user clicks this button, perform this calculation.”

Output
Information that comes out of the computer

Variable
A variable is a piece of information in a program that we want to store, but is able to change.