Computing Policy
Reviewed November 2022

Intent
At The Baird Primary Academy, we have high expectations for all our pupils and strive that all become logical and computational thinkers, who are digitally literate and can use and apply information technology to communicate their ideas. We recognise that technology is an integral part of everyday life and strive to equip our pupils to meet the challenges of an ever-evolving digital world. We offer our pupils a comprehensive computing curriculum in order to prepare them for life in the digital 21st century and a connected world.

All pupils need to learn how to use and process digital information and to keep themselves digitally safe. Our pupils' safety is paramount and we therefore spend considerable time focusing on digital safety.

Our pupils learn:

- How to be safe when using electronic technologies
- How to check the reliability of electronic information
- To understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- To code and use control technologies.
- To develop critical, problem-solving computational thinking
- To use a wide range of Information Technology applications to process text, images and data.
- To become responsible, respectful and competent users of data, information and communication technology.

Additionally, our pupils use Information Technology in other curriculum subjects to apply and contextualise their learning.

Implementation

Early Years Curriculum
Pupils in the Early Years Foundation Stage use computers and other technologies as part of their everyday provision with the Characteristics of Learning informing the planned provision. The Baird's Computing Knowledge Progression identifies the key learning in the different areas of Computer Science, Information Technology and Digital Literacy.

Children recognise that a range of technology is used in everyday life. They engage purposefully and create with: text, video, photographs, digital images, sound with video, photographs, digital images, music sound recordings, simulations and control devices like floor robots. They also learn social skills, rules and responsible use when using devices and the internet.

Curriculum for Years One to Six
At the Baird Primary Academy we follow our Knowledge Progression which details the progressive substantive and disciplinary knowledge to be learned in the different areas of Computing and e-safety from Year One to Year 6. These areas are:

Computer Science
- Algorithms
- Inputs and outputs, including simulations
- Debugging programs
- Predicting
- Networks

Information Technology
- Saving electronic work, copy paste, click, drag, clipart & images.
- Entering data using a keyboard, on-screen keyboard or touch screen
- Text & combined publishing
- Paint, drawing, design, images
- Sound and video

Digital Literacy
- Technology
- Privacy & security
- Health well-being and lifestyle
- Copyright and ownership
- Self-image and identity
- Online bullying
- Online relationships
- Online reputation
- Managing online information

- Spreadsheets & graphs
- Data, databases sorting, searching
- Internet & Searches
- Email

Supplementary to The Baird's Computing Knowledge Progression is the Computing Protocol which gives guidance to staff on all aspects of teaching computing at our academy. Pupils use a range of technology to support the units of learning. This may include:

- Laptops
- Tablets
- iPads
- Beebots / Roamers
- Data loggers
- Computers used to control physical devices

All pupils in Y1-Y6 receive a 45 minute discrete computing lesson per week. In addition, the application of information technology is an integral part of our whole curriculum, recognising that we are preparing pupils to work and play in a digital world.

Inclusion and Differentiation

Teachers are expected to differentiate all lessons to meet each pupil's needs. Pupils with specific needs will be given appropriate support, which may include the following examples:

- Help me cards
- Peer or adult support
- Large screen sizes
- Adapted keyboards
- Speech software
- Adapted curriculum.

Guidance is given within the Computing Protocol on how to simplify tasks within lessons or challenge those who require increased depth of learning.

Home Access

Each pupil has an individual logon to Purple Mash, which can be accessed at both school and home. Pupils are actively encouraged to practise their learning at home, using Purple Mash, and to keep in communication with their peers using this as a closed, safe platform for email etc.

Teachers moderate the pupils' use of Purple Mash at all times and the class teacher checks all content. In addition, pupils can receive feedback on their home learning, using this platform.

The Contribution of Computing to other curriculum areas

There are many opportunities for the application of computing within other subjects. The content of our curriculum will be reviewed on a regular basis as we recognise that technology is ever evolving and pupils need to develop powerful knowledge, which reflects cutting-edge developments.

Computing knowledge is taught progressively to ensure there is a high-quality focus on the learning of computing.

- Coding is taught discretely, although it will reinforce some aspects of mathematics.
- E-safety is taught specifically within computing and PSHE.

When teaching information technology, the knowledge is taught explicitly but the context often comes from a subject. For example:

- Internet Research may be taught within the context of history or geography research
- Communicating ideas using images and sounds and multimedia may be taught within art, music etc.

Impact

Assessment and Reporting

Pupils are assessed formatively so that support can be given within lessons and in future lessons in order for all children to achieve.

Pupils sometimes work together collaboratively to give feedback on each other's' work in a respectful and supportive way.

In the Early Years, assessments are made against the Early Years Foundation Stage Framework.

Teacher make summative judgements if pupils are working at age related expectations and acquiring substantive knowledge.

Outcomes

By the end of the Early Years, most children will be able to

- Complete a simple program on a computer
- Use ICT hardware to interact with age-appropriate computer software

By the end of Key Stage One, most children will 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; 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 Two, most children will 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 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

Monitoring

The Computing Subject Leader monitors the provision of computing. Feedback is given in a timely manner to improve each teacher's individual practice. Support, training and coaching is provided as needed. The Computing Subject Leader reports on the quality of provision and attainment to the Principal.

Policy Status and Review

Written by:	Computing Subject Leader
Owner:	Computing Subject Leader
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