

Rationale

The use of computing, information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable equipment, digital cameras and electronic systems for collecting data are a few of the tools that we use to acquire, organise, store, manipulate, interpret, communicate and present information. At Airedale Junior School, we recognise that pupils are entitled to quality hardware, software, and a structured and progressive approach to the learning of the knowledge and skills, which are needed to enable them to use the equipment safely and effectively and to equip them for later life.

Aims: Intent

- To provide a relevant, challenging and enjoyable curriculum in computing for all pupils
- To meet the requirements of the national curriculum programmes of study for computing
- To use computing as a tool to enhance learning throughout the curriculum
- To respond to new developments in technology
- To equip pupils with the confidence and capability to use computing throughout their later life
- To develop an understanding of how to use computing safely and responsibly

Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate - able to use, and express themselves and develop their ideas through, information and communication technology - at a level suitable for the future workplace and as active participants in a digital world.

National Curriculum and Subject Content: Implementation

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.

Computing Curriculum Planning:

Airedale Junior School is using a scheme of work created to link to many of the topics that year groups currently teach. These links are purposely made to ensure that whilst children develop the computing skills required of them by the national curriculum, the use of computing is also embedded across the other curriculum subjects.

Computing Curriculum Map

	Term 1.1	Term 1.2	Term 2.1	Term 2.2	Term 3.1	Term 3.2
Year 3	Touch Typing & Internet Search Skills	Control BeeBots	Email 2Email	Databases Branching Databases	Word Processing	
Year 4	Control ALEX	Coding Scratch	Control/Coding Light Boxes	Blogging Purple Mash		Publishing MS Publisher
Year 5		3D Modelling Sketch Up Air Raid Shelters	Databases 2Investigate	Presenting PowerPoint	Coding/control Kodu (Space)	Film Making DoInk Green Screen
Year 6	Podcasting Victorian Diary	Spreadsheets Excel	Stop Motion Animation iMovie/Movie Maker	Web Design Egypt		Augmented Reality

Teaching Online Safety

At Airedale Junior School, we understand that pupils must be taught to understand how to be responsible computer users in terms of both 'digital citizen-ship' and keeping themselves safe on line. Every year group has 8 units of work, taken directly from the Education For a Connected World UKCCIS Document, which is planned to ensure that the learning of the following skills is progressive and embedded, across the school.

- Self Image & Identity
- Online Relationships
- Online Reputation
- Online Bullying
- Managing Online Information
- Health, Wellbeing and Lifestyle
- Privacy & Security
- Copyright & Ownership

Furthermore, Online Safety assemblies, theatre workshops, poster competitions and half-termly reflection time events will increase and enhance pupil awareness keeping the subject fresh in pupil's minds.

Monitoring and Evaluation: Impact

Throughout the term/year a range of monitoring activities are conducted in-line with the schools monitoring calendar such as: lesson observations/drop-ins, book/work scrutiny, pupil voice, display audits alongside data analysis. This enables the computing leader to constantly monitor their subject area, identify needs for CPD and/or peer support, while keeping abreast of standards in computing across school.

Assessment

Assessment in computing should be both formative and summative. It should be:

- Used to inform future planning
- Used to promote continuity and progression
- Taking account of the different needs of individual pupils
- Based on a range of observations of practical tasks, participation, saved documents and discussions with pupils.

Each term at Airedale Junior School, teachers present a snapshot of their pupils' learning experiences in the form of a 'Computing Enrichment' document and in the case of Online Safety, collections of evidence of teaching and learning compiled.

The school is in the process of updating and creating a new assessment document, which details the key skills that students should acquire in each unit of work. The up-keep of this document will be the responsibility of the class teacher to record the achievements of their pupils.

These documents will be monitored by the Computing Co-ordinator to check the progress of the pupils across the school. Other forms of monitoring will include scrutiny of class enrichment documents, pupil voice interviews, lesson drop ins/observations. Pupils who are not succeeding or who demonstrate a high ability in computing will be identified and given further support.

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