Ashdene Primary School

Excellence: everyone, everywhere, every day

Ashdene Primary School – Computing Curriculum

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 information 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. Pupils must ensure they are being safe online – understand how to protect themselves and others from online harms and risks.

Aims

- Pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Pupils are responsible, competent, confident and creative users of information and communication technology

Topic Overview by Year Group 2023-2024

	HT1	HT2	HT3	HT4	HT5	HT6
Reception	Computing systems (Completing a simple program on an iPad)	Computing systems (Completing a simple program on a laptop)	1.3 Programming / 1.2 Creating media (Beebots) / (Paint)	1.3 Programming / 1.2 Creating media (Beebots) / (Paint)	1.3 Programming – moving a robot (Beebots)	1.3 Programming / 1.2 Creating media (Beebots) / (Paint)
Year 1	1.1 Computing systems and networks – Technology around us (Paintz)	1.6 Programming B – Introduction to animation (Scratch Jr)	Programming (Lego we Do)		1.6 Creating media – Digital writing (Microsoft Word)	1.4 Data and information – Grouping data (PowerPoint)
Year 2	2.1 Computing systems and networks – IT around us (PowerPoint)	2.2 Creating media – Digital photography (Digital Camera)	2.3 Programming A – robot algorithms (Beebots)	2.6 Programming B – An introduction to quizzes (Scratch Jr)	2.5 Creating media – Making music (Chrome Music Lab)	2.4 Data and information – Pictograms (j2data Pictogram)
Year 3	3.1 Computing systems and networks – Connecting computers (Painting program)	3.2 Creating media – Animation (iMotion)	3.3 Programming A – Sequencing sounds (Scratch)	3.6 Programming B – Events and actions (Scratch)	3.5 Creating media – Desktop publishing (Adobe Creative Cloud)	3.4 Data and information – Branching databases (j2data Branch and Pictogram)
Year 4	4.1 Computing systems and networks –The Internet (Internet)	4.2 Creating media – Audio Editing (Audacity)	4.3 Programming A – Repetition in shapes (FMSLogo)	4.6 Programming B – Repetition in games (Scratch) (Makey Makey)	4.5 Creating media – Photo editing (Paint.Net)	4.4 Data and information – Data logging (Data logger)
Year 5	5.1 Computing systems and networks – Sharing information (Powerpoint)	5.2 Creating media – Video editing (Microsoft Photos)	5.3 Programming A – Selection in physical computing (Crumble Controller)	5.6 Programming B – Selection in quizzes (Scratch)	5.5 Creating media – Vector drawing (Google Drawings)	5.4 Data and information – Flat file databases (j2data Databases)
Year 6	6.1 Computing systems and networks - communication	6.5 Creating media – 3D modelling (Tinkercad)	6.2 Creating media – web page creation (Google Sites)	6.3 Programming A – Variables in a game (Scratch)	6.6 Programming B – Sensing (Microbit) 6.4 Data and information – Spreadsheets (Microsoft Excel)	

*At Ashdene we teach computing following the **Teach Computing** Scheme.