Computing – Year 6

Computing intent		Vocabulary
Aims	• can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation • can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems • can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems • are responsible, competent, confident and creative users of information and communication technology.	detect, sensing, model, clients, routers, IP address, DNS, network, www, server, decomposition, detect, simulation, abstraction, app, syntax, function, comment, search engine, rank, web crawler, online identity, consent, social media, analyse, spreadsheet

	Knowledge and skills	Useful Units	Outcomes
Digital Literacy	• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. • Understand the opportunities networks offer for communication and collaboration. • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	iProgram (1) – Designing and developing computer games iProgram (2) – Designing and developing 3D animations iApp (1 & 2) – Designing and developing Apps iSafe – Staying safe in a digital world	Design and create a computer game Design and create 3D animations Design and create an App Using 3D models Understanding networks Creating web content Using spreadsheets
Information Technology	• 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	iApp (1 & 2) – Designing and developing Apps iData – Introducing spreadsheets iModel – 3D graphical modelling	**Cross-curricular links** iProgram (1) – Art, Maths, Science iProgram (2) – Art, English, Maths iApp – Art, English, Maths, Music, Science iData – Maths iModel – Art, DT, Geography, Maths, Science
Computer Science	• 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.	iProgram (1) – Designing and developing computer games iProgram (2) – Designing and developing 3D animations iApp (1 & 2) – Designing and developing Apps iNetwork – Networks, data and creating web content iModel – 3D graphical modelling	