Subject Key Summary Points

Subject	Computing
Overall Curriculum	**Boyton has used the latest pedagogy, research and understanding of local contextual needs to structure the curriculum design to ensure the growth of capability mature children who exhibit a sustained curiosity for learning. The 'lived values and experiences' of pupils are determined by the individual school and should run through all operational elements of curriculum provision.** At Boyton we use the computing scheme 'iCompute'. iCompute enables us to teach computing effectively and well by providing a rich, broad and balanced computing curriculum fully mapped to the National Curriculum (2014) for Computing in Key Stage 1 and 2. It offers pupils a computing curriculum designed for mastery, using research-led computing pedagogies and covers all three strands of the computing curriculum: • Computer Science • Information Technology • Digital Literacy (incl eSafety) Computer Science teaches pupils about how digital systems work, how they are designed and programmed, and the fundamental principles of information and computation. Pupils are inspired to use these to analyse and evaluate digital errors and use their knowledge to problems solve. Digital Literacy teaches pupils to find, organise, evaluate and create information using digital technology. Digital Literacy is the ability to use computer systems confidently and effectively, including: • Basic keyboard and mouse skills. • Simple use of 'office applications' such as word processing, presentations and spreadsheets. • Use of the Internet, including browsing, searching and creating content for the Web, communication and collaboration via e-mail, social networks, collaborative workspace and discussion forums. • Storing, organizing and creating digital content. Information Technology deals with the creative and productive use and application of computer systems, especially in organisations, including considerations of e-safety, privacy, ethics, and intellectual property.
Pedagogy	Our computing curriculum focuses on developing our pupils through the acquisition of **WISDOM, KNOWLEDGE, and SKILLS.** These have been selected because they ensure the whole development of the child will be prioritised, they enable pupils to meet the expectations of the National Curriculum 14 and have ambitions beyond the NC14. Each theme has a set of curriculum tools which ensure it is fully embedded through the lived experiences of staff, children, and stakeholders. Impact scales will measure the effectiveness of curriculum provision on the growth of children within these three equally important themes.

	It is our school's intention to enable children to become independent and confident users of digital devices. To have a sound understanding of how they work, to use computational thinking (able to take complex problems and break them down into manageable steps) and to be able to use devices to store, organise and create their own work. We aim to provide learners with a structured programme that introduces relevant skills, knowledge and concepts related to the three main areas that make up the Computing curriculum; Computer Science, Digital Literacy and Information Technology. For this to be achieved, the school aims to be well equipped in all areas of Computing, allowing staff to teach Computing and the wider curriculum above and beyond the National Curriculum requirements.. **Wisdom** Children develop in wisdom in the computing curriculum through: • use computational thinking (able to take complex problems and break them down into manageable steps) • independently applying skills and knowledge to new learning in computing • debating ethical issues related to Internet use and e-safety • Understanding the broad and growing uses of technologies but also understanding the limitations or 'dangers' that can be present **Knowledge** Children acquire knowledge in computing: • following a structured programme that introduces then builds on relevant skills, knowledge and concepts related to the three main areas that make up the Computing curriculum; Computer Science, Digital Literacy and Information Technology • the school ensuring it is well equipped and up-to-date in all areas of Computing, allowing staff to teach Computing and the wider curriculum above and beyond the National Curriculum requirements • through the school having staff that are well trained and confident in the use and teaching of Computing **Capabilities** Children develop their capabilities: • developing a sound understanding of how digital devices work, when and how to use them and when not to use them • applying their skills to produce outcomes in all subjects using digital technologies • Independently using their learning effectively and being capable and ready for the next stage of their education and beyond into employment
Assessment	Assessment is regarded as an integral part of teaching and learning and is a continuous process. iCompute provides a full suite of assessment resources to support teachers in making judgements about pupils' attainment and progress. **Formative** All sessions should begin with a recap/recall of previous learning. Teachers should use skillful questioning to gauge starting points, to assess current understanding and knowledge, to ensure concepts have been acquired, to identify misconceptions. This formative assessment should support the teacher in adapting lessons to ensure pupils are learning new learning, building on prior learning, and

	making links between new and previous learning. At the end of each session, teachers should use assessment tools to ensure that the intent of the lesson has been achieved, to help plan for the following session and to support building a picture of the pupils' progress for final summative assessments. It is the responsibility of the class teacher to assess all pupils in their class, this will be triangulated with marking, TA feedback and pupil self-assessment. Any misconceptions are addressed with immediacy and the impact of targeted teaching reviewed. **Summative** It is the responsibility of the class teacher to assess all pupils in their class. Each child is assessed termly, against the NC criteria and recorded annually on iTrack. Pupils produce an outcome to demonstrate their unit learning. At the end of a whole unit of work, the teacher makes a summary judgement about the work produced. Teaching staff are provided with a skill assessment sheet which, when completed, indicates the children who have met, have not met or have exceeded age-related expectations for that historical focus. We pass this information on to the next teacher at the end of the year. Reports to parents are given via parent meetings and pupils' attainment is reported via an annual report. Assessment will take place at three connected levels: short-term, medium-term and long-term. Assessments will take place after each unit of work. iCompute also provides a 'pupil self-assessment' I can record which they complete at the end of each unit.
Culture	Computing is an important contributor to the Trust ambition to develop the whole child through the acquisition of wisdom, knowledge, and skills. Our scheme provides each year group with a range of activities that will ensure pupils complete the curriculum but also revisit knowledge and skills and also experience a wide range of products and activities. Children will use the computers, i-pads, and touchscreen display units throughout their years at Boyton. In the Foundation Stage, the children work on a variety of design and making activities to meet the requirements of the Early Learning Goals. Children will receive dedicated Computing lessons and will be expected to use the knowledge and skills learnt to support their learning. Cross-curricular lessons are taught to and in hand, heighten the computing skills taught. Pupils may use digital devices in core subjects and in lessons such as design and technology, art and music.
Systems	The school follows the i-Compute Scheme which fully covers the National Curriculum (2014) and teachers plan using the Boyton Computing Overview. Computing is taught over a series of terms. We break down the computing curriculum into three main areas: • Computing Science • Digital Literacy • Information technology

Policy	During KS1 and KS2, the National Curriculum, and therefore Boyton Primary School's aim to ensure all children: • 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. **KS1 Aims:** • 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 **KS2 Aims:** • 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

Perceptions	The monitoring of the standards of children's work and the quality of learning and teaching Art and Design is the shared responsibility of the Head of School and the subject leader. The work of the subject leader also involves supporting colleagues in the teaching of Computing including: • Ensure teachers are familiar with the policy • Advise and monitor lesson plans / termly planning • Co-ordinate assessment procedures and record keeping so as to facilitate progression and cohesion • Be aware of national and local developments through reading appropriate materials and attending courses. • Prepare, organise and lead CPD, with the support of the HoS • Carry out scrutiny of children's work with work samples from all year groups for Computing. • Liaise with other schools in the development group to encourage continuity of approach • Observe colleagues from time to time with a view to identifying the support they need • Discuss regularly with the HoS and the Curriculum Governor the progress of implementing the policy in the school. • Contribute to the school Improvement Plan. • Submit an annual report to Governors, which informs the Governors of progress towards targets identified in the SIP. A named member of the school governing body is briefed to overview the teaching of Computing in the school