Curriculum Intent.

Computing is an ambitious subject which equips students to use computational thinking and creativity to understand and change the world. Computing at The Albion Academy ensures that students become digitally literate – able to use and express themselves and develop their ideas through information and communication technology. The skills students develop in their computing lessons will prepare them for the future workplace. “Preparing students to be digital learners, ready for the next generation” Our Computing curriculum will provide students with the skills to embrace and utilise new technology in a socially responsible and safe way. We equip our students with the skills to successfully operate in the ever-changing digital workplace and help them to understand the career opportunities that could be open to them. Students at The Albion Academy will also acquire a range of creative media skills and provided with several opportunities to develop, in context, desirable transferable skills. These include researching, planning, reviewing, working with others, and communicating creative concepts effectively. By using these skills students will be creating fir for purpose creative media products.

Our students will be digitally literate and competent end-users of technology, developing creativity, resilience, problem-solving and critical thinking skills. The curriculum threads the three pillars of computing (Digital Literacy, ICT, Computer Science) throughout Key Stage 3. When students join the academy in Year 7, they are taught a strong message of e-safety through exposing them to scenarios of potential dangers and teaching them a range of strategies to successfully combat them. This year covers the principles of how to access computers, software packages, exploring the history of computing and how technology will continue to evolve. The skills and knowledge acquired in the schemes of work are sequential and increase with complexity as students' progress through Key Stage 3 and Key Stage 4. Students will utilise the following software: - Microsoft Office Products: Word, PowerPoint, Excel, Publisher - Office 365 Apps: Outlook, Forms, Teams, OneDrive - Blockly, Python - Infinity. Schemes of learning and lessons are sequenced to support students’ progression in these areas over the course of study, which has been constructed based on the following principles:

Entitlement: The planned curriculum at The Albion Academy includes a breadth of knowledge relating to computer science, information technology and digital literacy. Declarative knowledge (‘knowing that’) and procedural knowledge (‘knowing how’) are identified, sequenced, and connected in the curriculum. Students will be taught two programming languages (Blockly and Python).

Coherence: Taking the National Curriculum as its starting point, our curriculum is carefully sequenced so that powerful knowledge builds term by term and year by year. For example, Year 7 cover Blockly which progresses to Python Programming in Year 8 and 9. Students learn to use debugging habits effectively e.g., comparing code to find differences, evaluating program to explain how it has been able to solve a problem.

Mastery: We ensure that foundational knowledge, skills, and concepts are secure before moving on. Pupil’s revisit prior learning and apply their understanding in new contexts using the Do it nows. Homework is linked to current and prior learning to build retrieval practice. Our aim is that students understand a key foundation of knowledge thoroughly before exploring more complex ideas.

Adaptability: Teachers adapt the curriculum for their individual classes and students. This includes adaptations for SEND and appropriate challenge. This ensures a positive learning environment where students are confident to try, make suggestions and develop buoyancy in their subject area. The curriculum allows the core elements, of logic and logical thinking, algorithms and algorithmic thinking, patterns and pattern recognition, abstraction and generalization and evaluation, to be confidently understood. For example, all students are taught the same programming languages Blockly and Python, but scaffolding allows them to be accessible for all.

Representation: All our students should see themselves in our curriculum, and our curriculum takes all our students beyond their immediate experience. Digital technology is driving global changes. Our aim is to ensure that the students navigate these changes effectively and safely, which in turn requires a significant understanding of digital literacy, information technology and computer science. This knowledge is crucial if business, industry, and

individuals are to exploit the opportunities offered by the new revolution. We relate this to ESafety, how to distinguish which sites are safe and accurate/ how to check and how to keep your data safe online.

Education with character: We provide Aspire clubs in ICT/Computing to ensure our students have access to programming and creating digital artifacts. This allows students to apply their knowledge of computer science through writing code to solve problems. Computer Science also ensures that students 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. This includes using up to date office programs and utilizing web-based software.