Computing

Intent, Implementation and Impact Statement

INTENT

The intent of St. Andrew's CEVA Primary School's Computing curriculum is to equip pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, providing 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 able to use information technology to design and create programs, systems and a range of content. Our Computing curriculum also ensures that pupils are digitally literate and are able to use, express themselves and develop their ideas through information and communication technology, at a level suitable for the future workplace and as active participants in the digital world. These concepts are interwoven throughout the whole curriculum (including links within PSHE), in addition to Online Safety themes where our children learn how to use the internet safely, stay safe, behave appropriately and who they can talk to if they have a problem when they are online.

Key Concepts

Our lessons will focus on the key concepts of being a computational thinker, user and creator within the breadth of the Early Years Foundation Stage, Key Stage One and Key Stage Two topics. The broad key skills for Computing, outlined within the National Curriculum are:

- Understand and apply concepts of computer science, including abstractions, logic, algorithms and data representation.
- Analyse and solve problems through the skills of writing computer programs.
- Evaluate and apply information technology to solve problems.
- Become responsible, competent, confident and creative users of information and communication technology, including safe and considerate internet use.

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Our teaching objectives will focus on developing this knowledge, understanding and skills within the Computing Curriculum. At St. Andrew's CEVA Primary School, we have adopted the Government approved and funded *NCCE Teach Computing Scheme.* Objectives from this may be taught from a topic-based approach where the Computing skills being taught will be made explicit. Teachers will adapt and amend the planned units within the scheme to suit the needs of their class.

Each topic will include retrieval activities to revisit and secure the key knowledge as well as the key vocabulary being explored. These will be made explicitly clear in the planning, within each unit's Knowledge Organiser and displayed within each classes Reflection Books.

Interwoven throughout the Computing curriculum are our core school's values of

Independence: Children are provided with opportunities to work independently and apply skills when using a range of digital devices and software.

Ambition: Through Computing lessons the children will be asked a range of deep level questions to extend their learning and raise the expectation we have in Computing. This in turn will help to raise their ambitions of what they can do and achieve as well as improve and develop their technique.

Self-Control: During Online Safety lessons the children will be encouraged to build their resilience and self-control, they will learn how to deal with difficult scenarios as well as how to control their emotions during this.

Perseverance: Online Safety is a key area where children will build their resilience, in addition to Computing lessons where the children will have to experiment with software and devices. They will need to be reflective and think about what has been successful, as well as what may need developing further.

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Integrity: throughout computing lessons children will be trusted to use equipment responsibly and with integrity. They must support others during collaborative work, whilst being reflective and supportive.

Responsibility: throughout computing lessons the children will be expected to work responsibly with any equipment which is provided. This continues during online safety lessons, where children will sign and set targets yearly as outlined in our online safety policy.

Empathy: during computing lessons the children will be expected to explore a range of different mediums, outlining the similarities and differences as well as making links to their own work. They will also consider how others should feel when using digital devices online in addition to areas such as copyright and cyberbullying.

In addition to our whole school ethos: *"With God All Things are Possible" - Matthew 19:26.*

These will be explored alongside and within our breadth of study.

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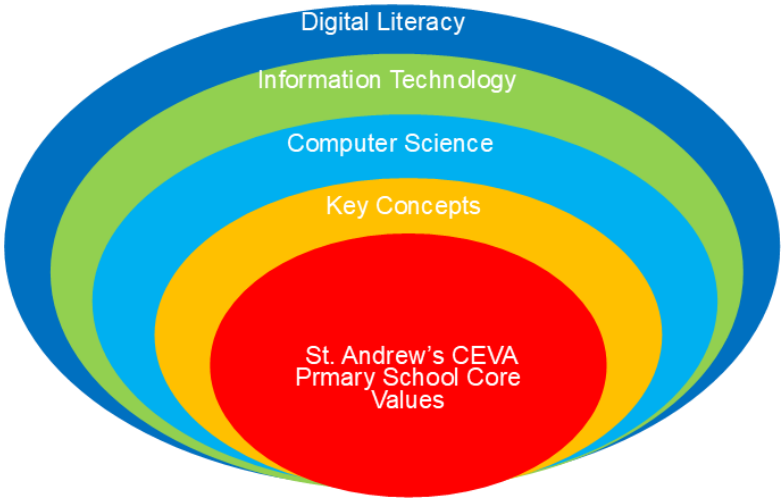
IMPLEMENTATION

To enable a continuous thematic approach, key concepts are mapped out across Key Stage One and Key Stage Two.



Topics taught can be flexible, as long as the concepts are explored by the end of teach stage of learning and the key concepts within each unit of the *NCCE Teach Computing* framework are covered. Computing topics may link to other curriculum areas but computing skills and concepts taught will be made explicit.

Pupils will gain key knowledge, building on their prior understanding of key concepts and will have a central task throughout the topic in which to demonstrate their learning and understanding.

Digital Literacy Skills will be taught less frequently (at least once per half term) and Online Safety issues will be explored within each year group from Year R to Year 6. This may form links with other subjects such as PSHE and issues may need to be addressed within the whole school, key stage or class. The underlying concepts of Digital Literacy will be revisited and revised within year groups as needed each term. Teachers will refer to and follow the 'Education for a Connected World' framework as covered by *Project Evolve*, and recommended by the DfE in *Keeping Children Safe in Education, 2023 p.35*

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"135. It is essential that children are safeguarded from potentially harmful and inappropriate online material. An effective whole school and college approach to online safety empowers a school or college to protect and educate pupils. Students, and staff in their use of technology and establishes mechanisms to identify, intervene in, and escalate any concerns where appropriate."

Therefore, we have also adopted our PSHE scheme and the Online Safety units featured within this scheme will supplement the *Education for a Connected World* framework, to ensure Online Safety is thoroughly and explicitly taught within each year group. These should be woven into each Computing unit throughout the year to ensure a solid coverage of all aspect. Teaches will use *Project Evolve* resources to support their teaching of the key strands outlined within the *Education for a Connected World* framework. This may mean that some *NCCE Teach Computing* unit lessons need to be combined to allow sufficient time to teach all strands effectively. Teachers should teach at least one Online Safety lesson per half term and work should be presented within their Reflection Books. The four areas of risk (content, contact, conduct and commerce) as identified in *Keeping Children Safe in Education, 2023* will be explored throughout the Online Safety lessons.

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Computing is no longer a subject which features within the new Early Years framework, however, here are St. Andrew's CEVA Primary School we believe that children should experience the use of technology in their early school life in order to equip them for the Key Stage One curriculum and provide them with life skills. Within continuous provisions in the Foundation unit, there are many sources of technology for the children to explore, interact and use creatively. It is out belief that technology plays such a huge part in day to day life that our youngest children should begin their journey with the use of technology at school.

These resources may include pretend devices such as phones, keyboards, mouses and cameras for the children to use in their explorative play. Or real devices such as iPads, BeeBots, Desktop computers and Interactive Whiteboards to gain a deeper insight into technology and its purpose.

Online Safety will be taught explicitly termly and teachers will refer to the *Education for a Connected World* framework and use of *Project Evolve* resources to support their planning and teaching.

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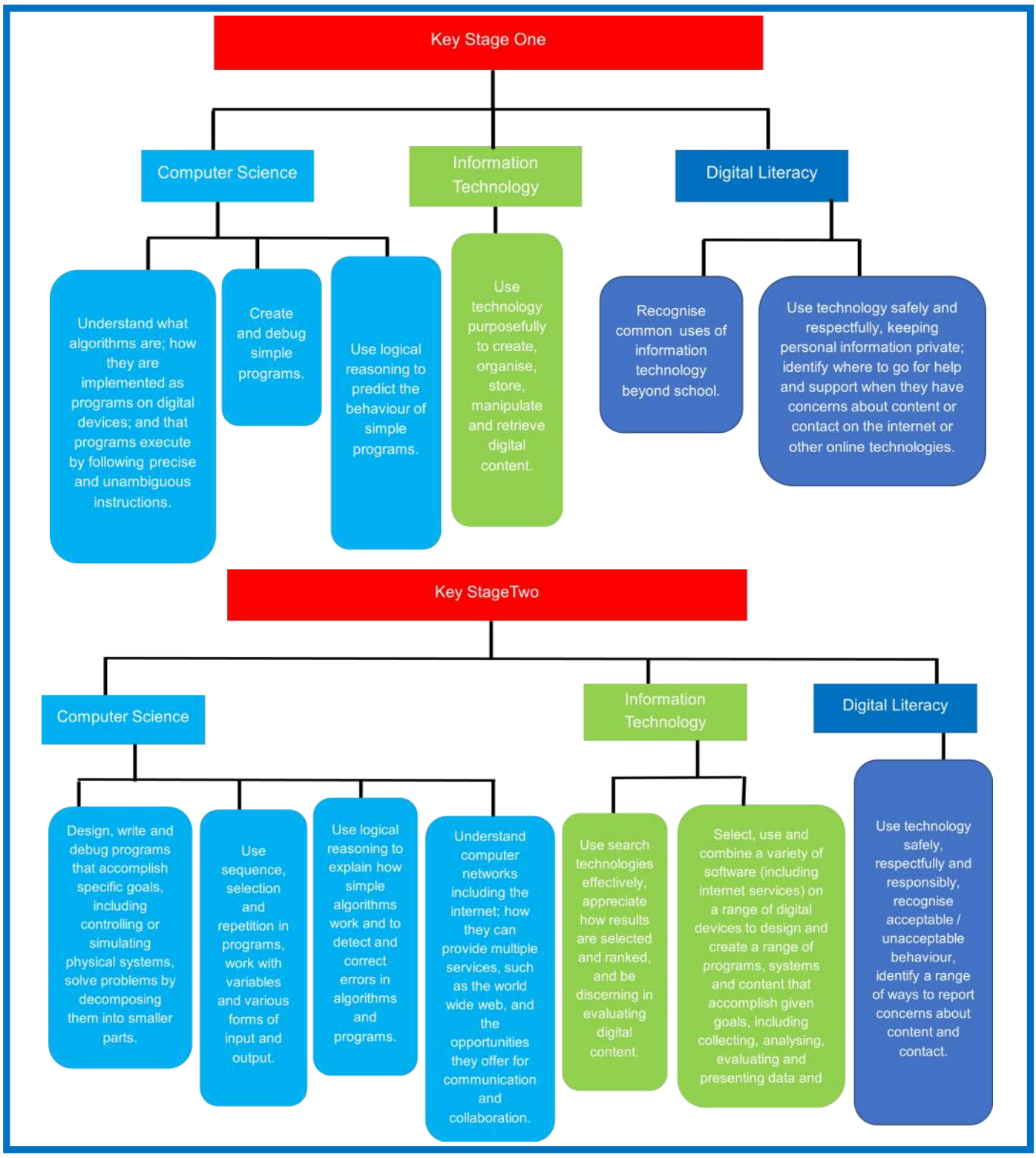

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IMPACT

After experiencing Computing at St. Andrew's CEVA Primary School, all pupils should be well equipped with a range of knowledge and skills to be confident and competent digital citizens.

With each lesson providing opportunities for teachers to assess pupil's learning against the key concepts, all children will acquire knowledge and understanding of how to use technology effectively for desired, relevant and meaningful purposes. They will be positive role models within the online world and will be respectful and responsible internet users, life skills which will follow them through in this ever changing digital and technological world.

All of our learners will acquire programming skills, evident within their work and assessed accordingly against the school's COMPASS statements. Enabling them to create and write effective computer programs, evaluate them and improve them. In addition to being critical thinkers, pattern spotters and trouble shooters—skills that they will need not only as they continue their journey into Secondary School, but also for the rest of their lives.