St Alban's C of E Academy

Computing Policy

2023-2024

Intent

At St Alban's C of E Academy, we empower each child to learn enthusiastically, grow independently and explore inquisitively to fulfil their God given potential. Our Christian distinctiveness is purposefully threaded and woven throughout our curriculum, to enable our children to flourish both within school beyond into the wider world.

At St Alban's C of E Academy we aim to equip pupils to use computational thinking and creativity to understand, adapt to and change the world. Through our diverse teaching of computing, we enable children to develop their computer science, information technology and digital literacy understanding and skills.

The four main areas of learning include:

- *Working with Computers - Digital Literacy and Online Safety*
- *Create*
- *E Worlds and Digital Communication – Computational Thinking*
- *Digital Research and Information – Computers and Hardware*

This will enable our children to participate in a rapidly-changing world where industry, work and leisure activities are increasingly transformed by technology. We enable them to find, explore, analyse, exchange and present information. Furthermore, we focus on developing critical skills across a range of hardware and software for children to be able to use technology in an effective way. Through all of this, we ensure that E-Safety underpins all aspects of computing to ensure our children are prepared to use technology safely and responsibly.

Computing skills are a major factor in enabling our children to be confident, creative and independent learners in an ever-changing, diverse society. 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. Our core aims of computing are to enable children to:

- *develop computing capability in finding, selecting and using information;*
- *use computing for effective and appropriate communication;*
- *monitor and control events both real and imaginary;*
- *apply hardware and software to creative and appropriate uses of information;*
- *apply their computing skills and knowledge to their learning in other areas;*
- *use their computing skills to develop their language and communication skills;*
- *explore their attitudes towards computing and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.*
- *use technology safely and responsibly to be a positive digital citizen*

These core aims are used to drive the teaching of computing across the whole school. Our ethos ensures that technology is used purposefully and effectively across the whole breadth of our curriculum. This enables pupils to use technological devices across all types of lessons for varying purposes to achieve outcomes in different ways. Enabling our pupils with access

to technology freely and frequently allows them to opportunities to excel and showcase their talents in creative and independent ways.

Implementation

As our aims of computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active, practical and immersive as possible. While at times, we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in computing is for individuals or groups of children to use technology to help them in whatever they are trying to study. We encourage our children to explore ways in which the use of computing can improve their learning in all subjects to strive for excellence.

In EYFS, teaching encourages the use of technology when children learn about the different areas of the curriculum. For example, in Art, they are provided with the opportunity to create self-portraits, enabling them to communicate their thoughts and feelings about themselves and others. The children will also use technology when reading stories, which allows them to show compassion and community for the world around them.

This can also be evident within KS1 where children learn about online bullying and its effects, allowing children to reflect on what they do and say online and the impact that this has on others.

We create a platform in KS2 to provide the best possible opportunity for the children to have a strong understanding for the future. A way in which this is implemented in practice is that the theme of digital citizenship runs throughout our Computing curriculum. An example of this is in Year 3, children learn about the concept of rings of responsibility, which allows them to think beyond themselves and the effects of their actions, develop the skill of empathy, recognise their moral compass and gain a sense of belonging and community.

At St Alban's C of E Academy we use the Kapow computing scheme of work as a foundation for our teaching and learning of computing – which follows all of the National Curriculum aims. However, we adapt this scheme of work to what best fits our school, our ethos and our children to ensure it is purposeful and meaningful in every lesson to develop critical skills progressively as children get older. This means that from the EYFS up to Year 6, our children gain experience in a wide range of computing aspects and understand how computing is used to enhance the world around us. Computing is taught through focus days, but is also evident within all aspects of teaching and learning in every subject. For example, technology is used in history lessons for research, MFL to record speaking and listening or PE to review physical performance.

E-Safety

Through the teaching and learning of computing, E-Safety is absolutely paramount and key to all of our teaching. At the beginning of every half termly topic, the children's first lesson is based on E-Safety: this then underpins the topic and is referred to throughout the entire duration of that topic and all future topics. Children are continually taught about our school ethos of E-Safety and how they can stay safe using technology at home and in the wider world. E-Safety is also referred to during PSHE lessons to ensure it is at the forefront of our technology teaching to ensure our children are equipped with the knowledge and understanding of using technology safely and responsibly at all times. Within our hall, an E-

Safety display is displayed: on here our focus of "Zip it! Block it! Flag it!" is promoted widely to all children, giving them a clear, accessible way to stay safe on the internet.

Computing curriculum planning
We use the national curriculum for computing as the basis for our curriculum planning. To break this down, we use the Kapow scheme of work as the foundation and journey of learning to then adapt to the needs of our children.

Planning process

- *The whole school overview maps out the computing topics that the children study in each half term during each year group.*
- *Our long term plans then break down the aims/objectives that are covered across each year group matched to the four main areas of learning.*
- *Our medium term plans break down each half termly topic with objectives from our building blocks covered and our clear national curriculum links.*
- *The class teacher is responsible for the weekly plans and then use these to identify differentiation needed for individuals.*

The topics studied in computing are planned to build upon prior learning to ensure there is progression from EYFS up to Year 6. While we offer opportunities for children of all abilities to develop their skills and knowledge in each topic, we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through our school.

Links in EYFS
Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, there are many opportunities for children to use technology to solve problems and produce creative outcomes within EYFS. Children are provided with opportunities to develop their ability to use computational thinking effectively through the use of computers, cameras, BeeBots to link to directional language, and other technology suitable to their age. Then during the year they gain confidence and start using the computer to find information and use it to communicate in a variety of ways.

Resources
The children have the opportunity to use the computers, digital cameras and programmable devices such as e.g. Beebots, data loggers, hardware, iPads, computers and a wide range of up-to-date software. Children also have access to green screens and multimedia suites to conduct projects and share their learning in variety of ways including video conferencing. Furthermore, the school endeavours to update its technological resources through hardware and software to meet the needs of the curriculum and advance the learning across the curriculum. Hardware and software resource lists are also detailed for each particular topic.

Equal opportunities
All children will have equal access to the Computing Curriculum, regardless of gender, ethnicity, socioeconomic background or special educational needs as outlined in the school's Equal Opportunities Policy. In advance to this, teaching will take into account the age, ability, readiness, and cultural backgrounds of children [and those with English as an

additional language] to ensure that all can fully access computing education provision. This will be done through purposeful reasonable adjustments and drawing on expertise from the subject leader to make every lesson meaningful to every child.

Cultural Capital

We believe that computing is an enormous part of the modern world and promote this through a range of activities: members of staff lead a computing after school club where children have the opportunity to explore a range of hardware and software; a young engineering club is also run where children have the opportunity to build and program their own products; and, children can also take part in cross MAT competitions where they have the opportunity to showcase their computing skills.

Monitoring

Close monitoring of lessons and learning along with reviews will be made by senior leaders and subject leaders. This will allow us to observe learning and outcomes within the curriculum, allowing us to gain feedback around what is going well and what are the ways to grow and move forward with children of all backgrounds and abilities. If there are areas where children are not making expected progress then class teachers will work alongside leaders and our SENCO to set specific targets within lessons to boost progress and attainment. Likewise, where children are showing themselves to be at a greater depth level, class teachers will provide further challenge to ensure children excel in every lesson. The computing subject leader uses an annual action plan to ensure measures are taken to review, evaluate and develop the effectiveness of computing across the school. This is done through learning walks, regular discussions with staff and monitoring planning, lessons and evidence produced by the children across all stages of learning.

Assessment and recording. Teachers assess children's work in computing by making informal judgements as they observe which informs planning for future lessons. Children are then assessed by teachers using St Alban's C of E Academy's Building Block system to monitor progression in key skills and understanding: this is done termly. Teachers use this evidence as the basis for assessing the progress of the children and to pass information on to the next teacher at the end of the year.

Parents, carers and the wider community

Parents and carers are always welcome at St Alban's C of E Academy and we strive to work alongside our community to benefit the lives and learning of our children. We offer learning together days throughout the academic year for parents to join their children in lessons to work together on areas within the national curriculum. Furthermore, we work strongly with children and parents alike to ensure they are aware of computing learning in school and in particular with our E-Safety policies and focus throughout computing learning. Parents are encouraged to access information we share online through our website and to use online resources available at home to enhance the learning of children whilst not in school. The school also subscribes to Purple Mash which children can use at home to encourage the use of appropriate ICT in the wider world.

Impact

At St Alban's C of E Academy we aim to equip pupils to use computational thinking and creativity to understand, adapt to and change the world. Our curriculum allows children to experience and use technology in a wide range of situations purposefully and effectively to achieve across the curriculum spectrum. This enables our children to thrive and make

excellent progress to achieve positive, meaningful outcomes in a range of ways across different hardware's and software's.
Furthermore, as well as for bespoke purposes, our children use technology side by side with their day to day learning and lives within school so it is fully embedded in their way of living and learning. As technology advances, we equip pupils to use it in school, but also out of school, safely and responsibly to enhance their lives now and in their future lives and workplace.
Spiritual reflection is an essential and intrinsic element in the curriculum we teach. We enable our children to reflect on their world and the world beyond them so that our children will have a wider understanding of the world around them. This Christian teaching will lead our children to have a greater fulfilment and tolerance towards all faiths in society leading to peace and hope for their futures.

Review

This policy will be reviewed annually by the subject leader, members of the SLT, staff and the Trust Directors/CEO