Forever Learning: Limitless potential for every child

Our Computing Curriculum

Subject Introduction - Computing		
A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides 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 equipped to use information technology to create programs, systems and a range of content. 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. At Victor Seymour we follow the Teach Computing Scheme for KS1 which is built around an innovative progression framework where computing is planned to equip all learners with the experiences and skills of Computing that they will use in a rapidly changing technological world.		
Intent		
Skills	**Knowledge**	**Provision**
• To develop Computing capability in finding, selecting and using information • To develop capability to begin to code programs • To create and debug simple programs • To confidently use simple software • To equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible.	• To understand and name the key parts of a computer • To have a broad understanding of technology • To use Computing for effective and appropriate communication • To apply their Computing skills and knowledge to their learning in other areas • To value the use of Computing and be able to use Computing appropriately and safely • To ensure children know the importance of online safety.	• The Teach Computing Curriculum has been written to support all pupils. • Lessons are sequenced to build on the learning from the previous lesson, and where appropriate, activities are scaffolded so that all pupils can succeed and thrive. • Scaffolded activities provide pupils with extra resources, such as visual prompts, to reach the same learning goals as the rest of the class. • Exploratory tasks foster a deeper understanding of a concept, encouraging pupils to apply their learning in different contexts and make connections with other learning experiences.

Online Safety	● Learn how to use technology and the internet safely. ● Online safety is not only taught in computing lessons, but in PSHE (and other) lessons	
Implement		
First Quality Teaching	**VSI Pedagogy**	**Timings and Coverage**
An exciting and interesting practical Computing curriculum following … ● Use of a variety of practical approaches within the classroom, school environment and Computer suite. ● There will be suitable learning challenges. ● There will be a response to pupils' diverse learning needs. ● Potential barriers to learning and assessment for individuals and groups - for e.g. for SEN / LA children who need support in Literacy - have appropriate resources to access learning. ●	● At VSI we follow the principles of Rosenshine Pedagogy. All lessons have these aspects: ●Sequencing concepts and modelling ●Questioning ●Reviewing learning ●Practice and apply ●Through this, subject specific vocabulary is developed.	● Computing curriculum is taught for **1 hour per week** within the ICT suite or within the classroom. ● Computing may be used in other curriculum areas to enhance the pupils' learning of the hour session per week.
Opportunities	**Subject Leaders**	**Vocabulary**
● Computing overviews have cross-curricular links with other subject areas and Teachers have the choice where these links are made. ● Teachers should teach the units where it best fits with the topic or timing. ● Children have opportunities in their environment to explore a digital literate class and explore the technology around them.	The Computing subject leader is responsible for: ● Planning the strategic direction and development of Computing at VSI. ● Leading Teaching and Learning in Computing and sharing expertise to support staff. ● Guiding and supporting CPD and staff development for specific teachers . TA's or as a whole school. ● Managing Computing resources. ●Being the drive for Computing as a subject and promoting and developing the VSI Computing vision.	● Develop children's use of Computer specific language, recording and techniques through the units of work covered. ● Computing Vocabulary for Key Stage One can be found here

Impact		
Information Technology	**Digital Literacy**	**Computer Science**
• Build on children's self-confidence to enable them to work independently with a variety of computing technology. • Children will develop positive attitudes to Computing.	• Provide the children with an enjoyable experience of Computing, so that they will develop a deep and lasting interest and may be motivated to study Computing further and use it in everyday life.	• Pupils know how and why technology is used in the outside world, and in the workplace. They know about different ways that computers can be used. • Children across the school articulate well about the potential risks of being online, and can talk about ways to keep safe.

Useful Links

BBC bitesize Computing - KS1 Computing - England - BBC Bitesize

Algorithm - What is an algorithm? - BBC Bitesize

Coding - What is code? - BBC Bitesize

Programming a robotic toy - Computing KS1 / KS2: Programming a robotic toy car - BBC Teach

Programming a computer game (Scratch) - Computing KS1 / KS2: Programming a computer game - BBC Teach

What is a computer? - What is a computer? - BBC Bitesize

Teach Computing - National Centre for Computing Education