



Curriculum Computing - Whole School 2026 - 2027





Curriculum Computing - Intent

Intent:

At Victoria Road Primary School, we recognise that children are growing up in an increasingly digital and technological world. Our intent is to provide a high-quality computing education that equips pupils with the knowledge, skills, and understanding needed to thrive in this rapidly evolving environment.

In line with the EYFS Framework and National Curriculum for Computing (KS1 and KS2), we aim to develop confident, capable, and responsible users of technology. Pupils will gain an understanding of key computing concepts, including algorithms, programming, data, and digital systems, and learn how these underpin the technology they encounter daily.

We place a strong emphasis on online safety and digital literacy, ensuring pupils know how to use technology safely, respectfully, and responsibly. Children are taught how to recognise risks, report concerns, and make informed decisions when using digital devices.

By the end of Year 6, we aim for all pupils to be computational thinkers who can apply their skills creatively and purposefully, both within school and in wider life.



Curriculum Computing - Implementation

Implementation

Computing is delivered through regular, carefully planned lessons that build progressively on prior knowledge and align with the National Curriculum. Teaching ensures coverage of the three key strands:

- Computer Science (algorithms and programming)
- Information Technology (using and applying technology)
- Digital Literacy (safe and responsible use)

Lessons are sequenced to allow pupils to revisit and deepen understanding, supporting long-term retention. Key concepts such as programming, data handling, and online safety are taught in increasing depth across each phase. In the Early Years Foundation Stage (EYFS), computing is introduced through the areas of *Understanding the World* and *Expressive Arts and Design*. Pupils explore technology through play-based experiences, developing early skills such as using simple equipment, recognising technology in their environment, and beginning to understand cause and effect.

Across KS1 and KS2:

- Pupils participate in practical, hands-on activities, including coding, digital content creation, and problem-solving
- Teachers use modelling and guided practice to support skill development
- Learning is supported through the use of structured platforms

Technology is also embedded across the wider curriculum. Pupils use digital tools to:

- Research information
- Present ideas creatively
- Enhance learning in subjects such as English, maths, and science

The school is well-resourced to support effective delivery. Classrooms are equipped with interactive SMART boards, and pupils have access to laptops and iPads, enabling both whole-class teaching and independent exploration. Through this structured and well-supported approach, pupils develop the skills needed to become independent, confident, and reflective users of technology.



Curriculum Computing - Impact

Impact

The impact of our computing curriculum is evident in pupils who are confident, articulate, and skilled in their use of technology. They demonstrate a secure understanding of key concepts and are able to apply their knowledge effectively across the curriculum.

Assessment is ongoing and includes:

- Monitoring of pupil work through online platforms
- Lesson observations and coaching
- Pupil voice and interviews, where children can explain and demonstrate their learning

By the end of Key Stage 2, pupils are able to:

- Design, write, and debug programs
- Use a range of digital tools confidently and purposefully
- Understand how digital systems work
- Make safe, responsible choices online

Overall, pupils leave VRPS well-prepared for the next stage of their education as safe, responsible, and competent digital citizens.



Curriculum Map

Whole School 2026 - 27

| | Autumn | Spring | Summer |
|-----------------|---|---|---|
| Year 1/2 | Technology Around Us (IT & DL) Digital Painting (IT) | Moving a Robot (CS & IT) Grouping Data (IT & DL) | Digital writing (IT & DL) Programming Animations (CS) |
| Year 3/4 | Connecting Computers (CS & IT) Stop-Frame Animation (IT & DL) | Sequencing Sounds (CS & IT) Branching Databases (IT & DL) | Desktop Publishing (IT) Events & Actions in Programs (CS & IT) |
| Year 5 | Systems & Searching (IT & DL) Video Production (IT & DL) | Selection in Physical Computing (CS & IT) Flat-File Databases (IT) | Vector Graphics (IT) Selection in Quizzes CS & IT) |
| Year 6 | Communication & Collaboration (CS & IT) Webpage Creation (IT & DL) | Variables in Games (CS, IT & DL) Introduction to Spreadsheets (IT) | 3D Modelling (IT & DL) Sensing Movement (CS & IT) |

KEY

CS - Computer Science

IT - Information Technology

DL - Digital Literacy



Curriculum Map

National Curriculum - KS1



Computer Science

Pupils will be able to:

- Understand that an algorithm is a set of instructions and follow simple algorithms
- Create and debug simple programs using visual coding tools
- Use logical reasoning to predict the behaviour of simple programs

Information Technology

Pupils will be able to:

- Use technology purposefully to create, organise, store, and retrieve digital content (e.g. text, images, simple presentations)
- Use a range of basic software tools to support their learning
- Recognise common uses of information technology both in and beyond school

Digital Literacy

Pupils will be able to:

- Use technology safely and respectfully
- Keep personal information private and understand what this means
- Identify trusted adults to speak to if something online makes them feel worried or uncomfortable
- Begin to understand that not all information online is reliable



Curriculum Map

National Curriculum - KS2



| Computer Science | Information Technology | Digital Literacy |
|---|--|---|
| <p>Pupils will be able to:</p> <ul style="list-style-type: none">• Design, write, and debug programs that accomplish specific goals• Use sequence, selection, and repetition effectively in programs• Work with variables and basic input/output• Use logical reasoning to explain how algorithms work and identify errors | <p>Pupils will be able to:</p> <ul style="list-style-type: none">• Select, use, and combine a range of software (including internet services) to create high-quality digital content• Use search technologies effectively and evaluate the reliability of digital information• Understand how computer networks (including the internet) enable communication and collaboration• Use technology to collect, analyse, and present data appropriately | <p>Pupils will be able to:</p> <ul style="list-style-type: none">• Use technology safely, respectfully, and responsibly• Recognise risks associated with online activity, including contact, content, and conduct• Manage personal information securely• Demonstrate an awareness of cyberbullying and know how to respond• Be responsible digital citizens who understand acceptable and unacceptable behaviour online |



Curriculum Map

End Points KS1 & KS2

| Year 1 | Year 2 | Year 3 |
|--|--|---|
| <ul style="list-style-type: none"> Understand that personal information should be kept private (e.g. name, school) Know that they should tell a trusted adult if something online worries them Begin to use technology safely with guidance | <ul style="list-style-type: none"> Understand what personal information is and why it should not be shared online Recognise that not all online content is safe or true Know how to seek help from a trusted adult | <ul style="list-style-type: none"> Understand the importance of strong passwords and keeping them private Begin to recognise unsafe online situations (messages, content) Use technology respectfully when communicating with others |
| Year 4 | Year 5 | Year 6 |
| <ul style="list-style-type: none"> Recognise different types of online risks (content, contact, conduct) Understand the impact of their online behaviour on others Know how to report concerns using school systems | <ul style="list-style-type: none"> Manage personal information responsibly across different platforms Understand cyberbullying and how to respond appropriately Begin to evaluate online content for reliability and bias | <ul style="list-style-type: none"> Demonstrate secure understanding of online risks and how to manage them Make informed choices about sharing information online Take responsibility for their digital footprint and online identity Support others in staying safe online |