

# Subject on a page



At Springfield Academy, our goal is to empower pupils to become masters of technology—using it with purpose and confidence—rather than passive users. Technology plays an integral role in modern life and will continue to shape the future of our students. We are committed to modelling and teaching the responsible, safe, and positive use of digital tools. Our curriculum is designed to foster creativity and innovation. By integrating computer science, information technology, and digital literacy, we encourage pupils to be creators rather than consumers. We also recognise the transformative potential of technology in enhancing accessibility and supporting diverse learning needs. A knowledge-rich curriculum must be complemented by opportunities for pupils to apply their learning in imaginative ways. This approach ensures that our students develop into skilled, thoughtful, and capable digital citizens.

## Intent

- We aim to...

We aim to equip learners with the skills to embrace technology.

We aim to enable pupils to be confident using technology safely and appropriately.

We aim to give pupils every opportunity to develop their ability and express their ideas.

We aim to teach specific skills and knowledge in different areas of computing.

We aim to enable pupils to make links with prior learning and build on this.

## Implementation

- How do we achieve our aims?

### Computing elements

Key skills of Computing underpin the projects taken in each year group. Each is grouped under 3 headings:

Digital literacy

Information technology

Computer science

### Skills are then grouped under headings:

#### Computing systems and networks

Identifying hardware and using software, while exploring how computers communicate and connect to one another.

#### Programming

Understanding that a computer operates on algorithms, and learning how to write, adapt and debug code to instruct a computer to perform set tasks.

#### Creating media

Learning how to use various devices – record, capture and edit content such as videos, music, pictures and photographs.

#### Data handling

Ensuring that information is collected, recorded, stored, presented and analysed in a manner that is useful and can help to solve problems.

#### Online safety

Understanding the benefits and risks of being online – how to remain safe, keep personal information secure and recognising when to seek help in difficult situations.

## Impact

- How will we know we have achieved our aims?

Pupils are confident and are able to use technology safely.

Skills are developed year on year and reflect that they can think critically about technology.

Pupils can articulate and explain what computing is.

Pupils use their imagination and creativity to create their own work.

Pupils use computing in a variety of ways to express their individuality.

### The National Curriculum

#### Key stage 1

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

#### Key stage 2

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.