Computing

Long-term plan

EYFS > Y6

EDALE RISE
Primary & Nursery School

Statutory guidance

Computer science
Information technology
Digital literacy

National curriculum
Key stages 1 & 2

EYFS

There is no statutory/non-statutory guidance around computing in the Development Matters document, however, as a school we believe in a whole-school approach and that fostering an enthusiasm for computing whilst developing a foundation of skills to be important. Early years students at Edale will;

- Develop an understanding of basic sequencing and buggy code.
- Use technology safely and respectfully.
- Begin to develop creative multimedia skills.
- Understand where to go for help and support should they have concerns around online content.

KS1

- 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.

KS2

- 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.

Statement

At Edale Rise, we strive to improve the life chances of every child and ensure that all children leave our school with a well rounded set of moral values. Our computing curriculum complements this with aims to instil a sense of enjoyment and appreciation for the capabilities of and opportunities provided by technology in our ever growing digital world. Children become responsible and respectful online citizens with an extensive set of transferable digital skills and a deep understanding of computer science and information technology whilst experimenting with creative ways to manage data, organise information, design and create multimedia outcomes and collaborate with others in a 'Take Care' manner.

Our scheme of work enables pupils to meet the end of Key Stage targets outlined in the National curriculum and goes above and beyond when delivered alongside our PSHE curriculum and Votes for Schools sessions. Our digital literacy offer also covers all outlined Aspects of the Education for a Connected World framework (2020).

Our curriculum is cumulative and spiralled, meaning that students revisit and build on skills and knowledge as they advance through the key stages of our school.

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How is it organised?

Computer science

The study of computer systems and networks, coding and algorithms.

Every child has a subscription to Rodocodo, which will help to guide them through units of learning and provide opportunities to practise skills both in school and at home.

Information technology

The study of technology and its uses in storing, managing and manipulating data.

Children will learn about the technology around them both in and out of school and the ways in which they operate.

Digital literacy

The study of responsible, respectful and ethical ways in which to access a wide range of digital technology.

Children will also develop creative multimedia skills to be used in designing, producing and sharing content.

Digital literacy

This strand of our curriculum combines both creative media units and online safety. At Edale, we believe it to be essential that all children leave our school as responsible and respectful online citizens with the skills and understanding required to thrive in an ever growing digital world. Students therefore spend the majority of their time in computing at Edale focussed on digital literacy.

We have adapted the Education for a Connected World framework (2020) and assigned strands to year groups in a spiralled nature, meaning that children return to and build on strands on a bi-annual basis. More information about these strands of online safety can be found on the next slide.

In addition to this, key concepts in designing, creating, organising and managing media are studied in each year group in coordination with our humanities curriculum. Our students will be exposed to a range of tools and applications with the opportunity to create 'Take Care' cross-curricular outcomes with their newly polished skills.

Digital literacy is at the heart of our computing/digital curriculum offer here at Edale.

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Digital literacy

Self-image and identity

This strand explores the differences between online and offline identity beginning with self-awareness, shaping online identities and media influence in propagating stereotypes. It identifies effective routes for reporting and support and explores the impact of online technologies on self-image and behaviour.

Online relationships

This strand explores how technology shapes communication styles and identifies strategies for positive relationships in online communities. It offers opportunities to discuss relationships, respecting, giving and denying consent and behaviours that may lead to harm and how positive online interaction can empower and amplify voice.

Online reputation

This strand explores the concept of reputation and how others may use online information to make judgements. It offers opportunities to develop strategies to manage personal digital content effectively and capitalise on technology's capacity to create effective positive profiles.

Online bullying

This strand explores bullying and other online aggression and how technology impacts those issues. It offers strategies for effective reporting and intervention and considers how bullying and other aggressive behaviour relates to legislation.

Managing online information

This strand explores how online information is found, viewed and interpreted. It offers strategies for effective searching, critical evaluation of data, the recognition of risks and the management of online threats and challenges. It explores how online threats can pose risks to our physical safety as well as online safety. It also covers learning relevant to ethical publishing.

Health, well-being and lifestyle

This strand explores the impact that technology has on health, well-being and lifestyle e.g. mood, sleep, body health and relationships. It also includes understanding negative behaviours and issues amplified and sustained by online technologies and the strategies for dealing with them.

Privacy and security

This strand explores how personal online information can be used, stored, processed and shared. It offers both behavioural and technical strategies to limit impact on privacy and protect data and systems against compromise.

Copyright and ownership

This strand explores the concept of ownership of online content. It explores strategies for protecting personal content and crediting the rights of others as well as addressing potential consequences of illegal access, download and distribution.

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Curriculum coverage - EYFS

Below is an overview of units taught in each year group throughout the year. The expectation is that computing is taught fortnightly but it is left to the discretion of teaching staff as to when each unit is delivered.

Year Group	Computer science	Information technology	Digital literacy
F1			Self-image and identity Online relationships Online reputation Online bullying
F2	Rodocodo		Managing online information Health, wellbeing and lifestyle Privacy and security Copyright and ownership

Suggested overview – EYFS

Computer science
Information technology
Digital literacy

Below is an overview of units taught in each year group throughout the year. The expectation is that computing is taught fortnightly but it is left to the discretion of teaching staff as to when each unit is delivered.

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
F1	Self image and identity		Online reputation	Online relationships		Online bullying
F2	Rodocodo					
	Managing online information		Copyright and ownership	Privacy and security		Health, wellbeing and lifestyle

Curriculum coverage – KS1

Below is an overview of units taught in each year group throughout the year. The expectation is that computing is taught weekly but it is left to the discretion of teaching staff as to when each unit is delivered.

Year Group	Computer science	Information technology	Digital literacy
Y1	Rodocodo		Self-image and identity Online relationships Online bullying Digital painting
Y2	Rodocodo	IT around us	Managing online information Privacy and security Online bullying Digital photography

Suggested overview – KS1

Computer science
Information technology
Digital literacy

Below is an overview of units taught in each year group throughout the year. The expectation is that computing is taught weekly but it is left to the discretion of teaching staff as to when each unit is delivered.

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y1	Rodocodo					
	Online relationships		Self-image and identity		Online bullying Digital painting	
Y2	Rodocodo					
	Managing online information IT around us		Privacy and security		Online bullying Digital photography	

Curriculum coverage– LKS2

Below is an overview of units taught in each year group throughout the year. The expectation is that computing is taught weekly but it is left to the discretion of teaching staff as to when each unit is delivered.

Year Group	Computer science	Information technology	Digital literacy
Y3	Rodocodo	Branching databases	Online relationships Managing online information Health, wellbeing and lifestyle Stop-frame animation
Y4	Rodocodo	The internet Data logging	Online bullying Privacy and security Copyright and ownership

Suggested overview – LKS2

Computer science
Information technology
Digital literacy

Below is an overview of units taught in each year group throughout the year. The expectation is that computing is taught weekly but it is left to the discretion of teaching staff as to when each unit is delivered.

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y3	Rodocodo					
	Online relationships		Health, wellbeing and lifestyle Stop-frame animation		Managing online information Branching databases	
Y4	Rodocodo					
	Online bullying The internet		Privacy and security		Copyright and ownership Data logging	

Curriculum coverage– UKS2

Below is an overview of units taught in each year group throughout the year. The expectation is that computing is taught weekly but it is left to the discretion of teaching staff as to when each unit is delivered.

Year Group	Computer science	Information technology	Digital literacy
Y5	Rodocodo	Systems and searching Flat-file databases	Managing online information Online reputation Health, wellbeing and lifestyle
Y6	Rodocodo	Introduction to spreadsheets	Self image and identity Copyright and ownership Online relationships Privacy and security 3D modelling

Suggested overview – UKS2

Computer science
Information technology
Digital literacy

Below is an overview of units taught in each year group throughout the year. The expectation is that computing is taught weekly but it is left to the discretion of teaching staff as to when each unit is delivered.

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y5	Rodocodo					
	Health, wellbeing and lifestyles Systems and searching		Managing online information		Online reputation Flat-file databases	
Y6	Rodocodo					
	Privacy and security		Online relationships Introduction to spreadsheets	VPNs	Self-image and identity 3D modelling	Copyright and ownership