



Computing intent – A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing is an integral part of everyday life. We recognize that pupils require the skills to enable them to use computers, tablets and other hardware effectively for a range of purposes. Pupils understand how to keep safe online.

The Teaching of COMPUTING at Ravensdale

The Teaching of COMPUTING - COMPUTING is taught weekly as a discreet lesson, or as part of a linked topic. Devices are also used to enrich learning throughout the curriculum.

Pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.

Pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

Pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems

Pupils are responsible, competent, confident and creative users of information and communication technology.

Strategies for teaching computing are: should include

- the use of a range of devices,
- carefully planned, differentiated tasks
- practical, active learning and investigative tasks
- clear linkage between: current curricular topics, year-on-year progression, or linkage threading through the year

NC – Teaching of computing implementation –

- Have regular, purposeful use of devices showing independence and confidence
- inspire pupil’s curiosity,
- equip them to solve problems
- create algorithms to achieve a given objective.
- An online-safe lesson taught the first week of each half term.

Knowledge – Here is an overview of the knowledge taught – more detailed information is available in the progression documentation.

Declarative Knowledge		Procedural Knowledge		
Knowledge and understanding of computing.		Thinking and working like a computation		
Computing knowledge / understanding (including fluency on a range of software, across different devices).	Computing terms and key vocabulary	Computing Concepts	Know, apply and understand the skills and processes of the subject	Using devices confidently to accomplish a range of tasks across the curriculum.

The national curriculum for computing aims to ensure that all pupils:

- ♣ 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.

Year group coverage		Impact – Teachers will observe and see evidence of..
Year 3 . Typing skills . saving and printing .Wd processing .Programming .Research .Presenting .Desktop publish. .e-Safety	Year 4 .Wd processing . Programming . Animation .Research .Presenting .Performing music .e-Safety	
Year 5 .Programming Typing skills Wd processing .Research .3D Modelling . Handling Data .e-Safety	Year 6 .Typing skills .Programming . Animation .Research . Handling data . Repeating patterns . Web design .e-Safety	
-application of computing skills and knowledge through a range of concepts. -refer to use of computing terminology and vocab across a range of subjects. -Use of enquiry and questioning. -increasingly independent research and discerning selection of data - formal assessment against a given set of criteria & an assessment level is reported to parents as part of the end of year report.		

Key computing concepts

Typing and keyboard skills
Programming, including: Control, sequencing, selection, repetition, reasoning & debugging
Understanding networks & search technologies
Managing data
e-Safety

Key Computing Skills

Use a keyboard accurately and with increasing speed and confidence
Write programs to achieve a particular purpose
Use progressively challenging programming features, such as repetition and selection to create increasingly complex programs
Debug programs by analysing and changing their algorithm
To use the school network to open, save and print files.
To use search engines discernibly and critically select what is valid and reliable information.
To use software to manage data with increasing skill.
Be safe online, recognising online risks, cyber-bullying and how to report it.