



# COMPUTING AT MIDDLETHORPE



At Middlethorpe At Enquire Learning Trust, we believe that it is vital for all our pupils to learn from and about Computing and Technology, so that they can understand the world around them. We aim to equip our children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology.



## Big Ideas



- **Algorithm** (process, rules, sequence)
- **Program** (operation for computer)
- **Technology** (equipment for knowledge)
- **Software** (program, computer information)
- **Coding** (sequence)
- **E-Safety**



## Content and Sequencing



- **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.

## Links with English and Maths



- Every lesson is a reading lesson
- Use of computing for data handling
- Presentation of work (including word processing skills)
- Research
- Develop and apply number work (such as TTrockstars)
- Use of visual literacy



## Retrieval Practice



- Knowledge, skills and vocabulary identified
- Knowledge organisers used to support recall and retention
- Low stakes quizzing to develop long term memory
- Key concepts identified (above) are revisited
- Key ideas are investigated by considering what they are and what they are not
- Links across year groups for retrieval of knowledge



## Outcomes



- All units begin with an enquiry questions which children should be able to answer at the end of the unit
- End of the unit children with complete a task which gives them the opportunity to apply all their computing knowledge and understanding
- End of unit quiz



## Support



Everyone has access to the computing National Curriculum.

Support is provided for those learners who require it

Considerations are given for learners who grasp concepts more rapidly