'Learning for a fuller life...'

| TAVERHAM VC CE JUNIOR SCHOOL CURRICULUM OVERVIEW | Computing |
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## INTENT

*For children to engage with programming across the computing curriculum and have opportunities to solve problems and provide solutions to these. They should be able to use prior knowledge and build on this as they progress through the school developing, testing and debugging issues that arise through logical reasoning. In addition to this, all children should have a clear understanding of how to use the Internet and computers safely.*

As stated in the national curriculum our intent is for all pupils throughout Key Stage 2 to:

- 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

| SKILLS | KNOWLEDGE |
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| To discover the skills pupils learn and demonstrate at Taverham VC CE Junior School, please see the 'Teach Computing KS2 Curriculum Map' | The Teach Computing Curriculum uses the National Centre for Computing Education's computing taxonomy to ensure comprehensive coverage of the subject. All learning outcomes can be described through a high-level taxonomy of ten strands, ordered alphabetically as follows:<br><br>• Algorithms — Be able to comprehend, design, create, and evaluate algorithms<br>• Computer networks — Understand how networks can be used to retrieve and share information, and how they come with associated risks<br>• Computer systems — Understand what a computer is, and how its constituent parts function together as a whole<br>• Creating media — Select and create a range of media including text, images, sounds, and video<br>• Data and information — Understand how data is stored, organised, and used to represent real-world artefacts and scenarios<br>• Design and development — Understand the activities involved in planning, creating, and evaluating computing artefacts<br>• Effective use of tools — Use software tools to support computing work<br>• Impact of technology — Understand how individuals, systems, and society as a whole interact with computer systems<br>• Programming — Create software to allow computers to solve problems<br>• Safety and security — Understand risks when using technology, and how to protect individuals and systems |

Program of study
NC (Teach Computing)

Year 3
1 - Connecting computers
2 - Stop-frame animation
3 - Sequencing sounds
3 - Branching databases
3 - Desktop publishing
3 - Events and actions in programs

Year 4
1 - The internet
2 - Audio production
3 - Repetition in shapes
4 - Data logging
5 - Photo editing
6 - Repetition in games

Year 5
1 - Systems and Searching
2 - Video production
3 – Vector drawing
4- Selection in physical computing
5 - Flat-file databases
6 - Selection in quizzes

Year 6
1 – Variables in games
2- Communication and collaboration
3 - Webpage creation
4 - Introduction to spreadsheets
5- 3D modelling
6 – Sensing

SUPPORT/ ADDITIONAL OPPORTUNITIES

*Support for SEN/disadvantaged children:*

- *Example of code to be displayed to assist some children.*
- *Other resources available to use if they are finding a particular difficult.*
- *Mixed ability pairs to help children that may struggle more*

*Additional opportunities for more able children:*

- *Opportunities to further develop pieces of work.*
- *Encouragement to try and adapt games and create new lines of code that add different variables.*

How does computing contribute to the overall school aims? (*Children who are: Successful and Happy; Confident and Resilient; Responsible; Caring; Respectful and Tolerant and Reflective)*:

Computing is an engaging subject full of variety. Children overwhelming enjoy computing at Taverham Junior School, if it be working on their own to solve problems or working in groups to create videos, presentations or games; they love to be creative and expressive within these tasks. Computing builds resilience through trying to find solutions to problems that aren't trivial and aren't immediately obvious. In most year groups there are clear links to overarching themes and other subjects to stretch children's learning and build on the knowledge that they have already gained by putting it to use in practical tasks. It is also vital hat the children learn about digital citizenship and e-safety as it teaches them to be responsible when they are online in school and at home; respectful of others on line and tolerant of other's beliefs.