Computing Intent and Implementation Statement

"Alan Turing gave us a mathematical model of digital computing that has completely withstood the test of time. He gave us a noticeably clear description that was truly prophetic"

George Dyson

Intent:

At the Manor, we intend to provide...

- A curriculum that is ambitious and designed to give all learners, particularly the most disadvantaged and those with special educational needs and/or disabilities (SEND) or high needs, the knowledge and cultural capital they need to succeed in life.

- A curriculum that is coherently planned and sequenced towards cumulatively sufficient knowledge and skills for future learning and employment.

This Computing curriculum is **ambitious** because:

- It develops **a wide range of knowledge, skills, understanding** and constructive **attitudes** towards technology
- It develops the [underlying processes and metacognition](#) needed for students to have a deep understanding of Computer Systems
- It recognises that students have the right to become **more than competent operators of technology** – that they are able to adapt, understand and make discerning use of the technology around them.
- It integrates the latest DFE guidance on Online Safety therefore making sure that the ethics of Computer use are addressed. This is vital for building positive social capital in any society.
- It complements the [vision of the National Centre of Computing Education](#)
- It covers online safety, with sequenced learning objectives from [Education For an Connected World](#) in the following areas:

Click links to view starter activities in these strands for KS1+KS2

[Self Image and Identity](#)

[Online Relationships](#)

[Managing Online Information](#)

[Online Reputation and Online Bullying](#)

[Copyright and Ownership](#)

[Health, wellbeing and lifestyle](#)

[Privacy and Security](#)

You can find further resources via [Project Evolve](#) from The South West Grid For Learning – these are resourced longer lessons type activities.

This Computing curriculum is coherently **planned and sequenced** because:

- There are broad themes that align vertically through each key stage: **Programming, Multimedia and Digital Literacy**
- **Objectives** within each strand are progressive, and share a common language so that there is progression in Computer Science skills
- The objectives allow usage in either a discrete or cross-curricular way.
- **Online Safety** is taught periodically in a planned and sequenced way, building layers of resilience against inappropriate **conduct, content and contact**
- This document provides access to customizable resources and lesson plans, s**o that additional content can be included or adapted by teachers as needed.**

This Computing curriculum contributes to a **broad and balanced ethos** because:

- It focuses on a wider range of **knowledge and skill** than the operation of devices – contributing to children **becoming well informed and rounded** learners
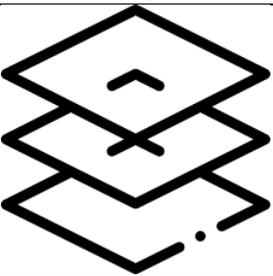
- It provides access **to sequences of lessons** looking at a **wide range of real-world applications** of Computing
- It allows the classroom practitioner to include cross curricular work – for example with Mathematics and Data handling

Implementation

- Teachers have an appropriate level or knowledge for the subject, which is supported through the access to sequences of lessons, resources and planning within this scheme if work. Where staff need support, there is access to planning, teaching and coaching support from The White Horse Federation School Improvement team
- The learning is structured to help with retention of knowledge and underlying skills – for example, in programming, children will systematically develop their skills in prediction, investigation, making and modifying and improving.
- The curriculum is designed to reduce workload for staff by providing access to resources, technology that works across different devices, so that they can concentrate on teaching and monitoring the children's learning.
- The curriculum supports the school's wider ambitions towards reading – key questions, success criteria, and information about online safety allow children to use their reading skills. Debugging code develops skills in scanning techniques and reinforces the need for accurate syntax.

- The curriculum supports the school's wider ambitions towards rich vocabulary, with activities and key language that build up Pupil's ability to describe what they are learning.

Golden threads Within this subject.

Subject Name: Computing		Subject lead: James Summerson		Date 2021-2022
How do the following 'Golden Threads' work within this subject?				
Christian Values	Language Rich	In depth	Knowledge Rich	Active and Engaged
This subject supports our Christian Values by…	This subject supports children's language use and acquisition by…	This subject provides in depth learning through…	This subject provides children with age-appropriate knowledge by…	This subject allows for active and engaged learners by…
Developing **Courage**, by expecting children to solve problems and create high quality content.	Highlight key words for each strand of the curriculum for children to learn in increasing depth as they develop.	Having an in depth and overarching online safety component, so that children gain layers of protection from online harm.	Gaining new knowledge of how to program hardware and software to complete a given goal.	Participating in their own assessment, so that they know how they are doing.

Developing **Respect,** by teaching children about how to respect equipment, information and each other online.	By highlighting key language within programming, so that children can talk authoritatively about what they are doing.	Through having progression down through year groups. Children learn about Programming, Multimedia and Digital Literacy, building on prior skills.	By looking at a range of software in multimedia, so that students get a wide knowledge of different applications.	Providing children with the chance to tinker, debug, create and modify code, multimedia projects and other learning.
Developing **honesty,** through supporting children to evaluate and improve their own algorithms and work.	Providing children with a language of computer systems, so that they can explain how things work beyond the surface level.	Through having breadth across the subject. Children learn about a wide range of applied knowledge, skills and attitudes to develop their understanding.		