

Manor Junior School

Curriculum Statement – Computing

Quote

‘We need technology in every classroom and in every student and teacher's hand, because it is the pen and paper of our time, and it is the lens through which we experience much of our world.’ David Warlick

The national curriculum aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Are responsible, competent, confident and creative users of information and communication technology

Our Planning Approach

Hook and key question

What is the topic/purpose? Where is this used in the real world? Introduce key question to inspire, fascinate and ignite curiosity. What questions do you have?

Explore

Learn and practise key skills and understanding. How does it work? What do we need to know?

Apply

Understand and apply the new learning using key vocabulary.

Evaluate

Reflect on what we have learnt and evaluate learning. Explain what we know. Respond to key question. An opportunity to show case how we have been inspired, curious and fascinated and celebrate learning.

Intent – Aims

Our ‘Explore, Learn, Achieve’ computing curriculum aims for children to become competent, confident, creative and responsible users of technology in all aspects of their lives. At Manor Junior School, we provide:

- Our children with the life-skills which will enable them to act responsibly and thrive in an ever changing technological world.
- Enriched, engaging activities that will equip our children to be confident, independent and responsible digital citizens.
- A clear progression of skills and knowledge.

As part of our curriculum, we want children to become creative users of technology and be able to identify and access the benefits of technology to become socially responsible members of a global community. Our curriculum encourages children to explore, be problem solvers and to become critical thinkers. We celebrate children showing independence, finding their own solutions, making mistakes along the way and being the best that they can be.

Implementation- How do we achieve our aims?

Our curriculum is delivered as a mixture of plugged and unplugged activities to embed the different concepts within computing. There is a clear progression of skills throughout their experience from Year 3 to Year 6.

Finding the right balance with technology is key to an effective education and a healthy life-style. We feel the way we implement computing helps children realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. We encourage regular discussions between staff and pupils to best embed and understand this.

- Programmes of Study are blocked to allow children to focus on developing their knowledge and skills.
- Every year group will build upon the learning from prior year groups therefore developing depth of understanding and progression of skills within the strands of digital literacy, information technology and computer science.
- Children have the opportunity to demonstrate their understanding using a variety of hardware (e.g. iPads, laptops, Chromebooks and programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications.
- Effective modelling by teachers ensures that children are able to achieve their learning intention, with misconceptions addressed within it.
- E-safety is taught as a whole school community issue and is very much integrated within our PSHE curriculum. This will be taught through assemblies as well as lessons in class.

Impact - How will we know we have achieved our aims?

The way pupils' showcase, share, celebrate and publish their work will best show the impact of our curriculum. We also look for evidence through reviewing pupil's knowledge and skills digitally through tools like Google Drive and observing learning on a lesson-by-lesson basis based on the objectives and outcomes. These are used to inform future planning ensuring that teachers are meeting the needs of all individuals and allowing them to progress.

We encourage our children to enjoy and value the curriculum we deliver. We will constantly ask the WHY behind their learning and not just the HOW. Therefore, learners will be able to discuss, reflect and appreciate the impact computing has on their learning, development and wellbeing.

Planning is monitored by the subject leader and work is sampled for each project.

Year leaders are given feedback.

Curriculum Links with other subjects and enrichment opportunities

- PSHCE (E-safety)
- DT (Crumble)

The following could be used throughout the year e.g. when researching or using devices for other subjects, but are not assessed.

- Collecting/collating data using Excel or Junior Viewpoint.
- Using the internet for research purposes.
- Using different software to produce pieces of work. E.g. videos, photos, iPads , ppts

Curriculum Overview: Computing at Manor Junior School

	Autumn		Spring		Summer	
Year 3	E Safety - Self-image and identity Data and Information - Computing at Manor Logging on to TTRS/Oxford Reading Buddy etc...		Computing systems and Networks - Know how to search effectively	Programming - (Scratch – The Magic Carpet)	Creating Media - Keyboard/word processing skills	Creating Media - Keyboard/word processing skills
Year 4	Programming - (Scratch - The Helicopter Game)		Creating Media - Animation	E-Safety - Managing online information	Computing systems and Networks - What is the internet?	
Year 5	Programming - (Scratch – Wizard's Choice)	Creating Media - Dance Videos	Computing systems and Networks - Evaluating Digital Content	E-Safety - Online reputation		Data and Information - Data Collecting
Year 6	Programming - (Scratch – Walker One) Crumble		Computing systems and Networks - What is the WWW?	Creating Media - Use a range of software		E-Safety – Copyright & Ownership