Packmoor Ormiston Academy
Computing Policy

(Reviewed March 2024)

1. Introduction

At Packmoor Ormiston Academy we believe that every child should have the right to a curriculum that champions excellence; supporting pupils in achieving to the very best of their abilities. We understand the immense value technology plays not only in supporting the Computing and whole school curriculum but overall in the day-to-day life of our school. We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

Our vision is that *"We believe that by embracing our ever more digital present, we can teach our pupils to become responsible, respectful and competent users of digital technology. We believe that by teaching our pupils about the dangers and pitfalls of the internet, we can in turn teach them how to enjoy, be safe and be kind online."*

2. The aims

- All pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation. (CS)

- All pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems. (CS)

- All pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems. (IT)

- All pupils are responsible, competent, confident and creative users of information and communication technology. (DL)

3. **Entitlement**

The new National Curriculum states that pupils should be taught to:

	KS1	KS2
Computer Science (CS)	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	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 Appreciate how [search] results are selected and ranked
Information Technology (IT)	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use search technologies effectively 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
Digital Literacy (DL)	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	Understand the opportunities [networks] offer for communication and collaboration Be discerning in evaluating digital content Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

4. Implementation

Computing will be taught primarily as a discrete subject, however where appropriate, Computing will be taught in a cross-curricular way. Most lessons will be from the 'Purple Mash' Scheme with the majority of the online safety lessons being sourced from a different scheme.

Each year group will have the opportunity to use the Computing suite once on a weekly basis. Additional use of the Computing suite may be possible and should be booked in advance.

In addition to the use of the computing suite children will have access to other equipment such as programmable toys, iPads and cameras.

5. Equality

All pupils at Packmoor Ormiston Academy are entitled to a broad and balanced curriculum. Computing should enhance the children's learning in other subjects as well as extend their computing skills. Pupils should know what to do when using technology if they have a problem, particularly concerns related to e-safety. E-safety should be at the core of all aspects of computing.

To ensure all pupils have the ability to make progress in computing:
- All pupils will tackle the same key objectives

- Teachers will use a range of teaching styles

- Teachers will be aware of pupils with specific needs and tailor support for these pupils, including SEN and higher ability

- Teachers enhance opportunities for learning to be cross curricular; including Maths and Science links (i.e. data collection)

6. SEND

Computing lessons should take into account the individual needs of our children. Lessons should be differentiated to ensure all children reach their potential, this may be through additional adult support, extension tasks or resources.

7. Assessment

Teachers will assess using the assessment tool within the Purple Mash scheme. This tool is used to track key learning objectives for each child, that are covered by the different units of work completed throughout the academic year (as outlined in the Computing curriculum map). Pupils will also self-assess, particularly when coding (by de-bugging).

Online safety is teacher assessed as part of the half-term of Online Safety lessons taught in Summer term 1.