Packmoor Ormiston Academy
Computing Policy

(Reviewed April 2021)

1. Introduction

At Packmoor Ormiston Academy we understand that a high-quality computing education is essential for pupils to understand modern information and communication technologies (ICT), and for them to use these skills to become responsible, competent, confident and creative participants of an increasingly digital world.

Our vision is that "*technology skills and computing are embedded within all aspects of learning to ensure our pupils are fit for the future*".

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 'Rising Stars' 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. <u>SEN and G&T</u>
Computing lessons should take into account the individual needs of our children which include SEN and G&T. Lessons should be differentiated to ensure all children reach their potential, this may be through additional adult support, extension tasks or resources etc.

7. <u>Assessment</u>
Computing will be primarily assessed within a lesson and further teaching tailored to support and extend pupils. Assessment may be carried out via verbal feedback, this will often be from the teacher but peer assessment may be used alongside this in lessons. Pupils will also self-assess, particularly when coding (by de-bugging). Pupils are able to save work to their own unique file which gives more opportunities for pupils to re-visit and improve on projects as their skills improve.