



# Year 5



## Computing Skills Progression

	Year Group	5	Class		Teacher	
UNIT	TERM 1		TERM 2		TERM 3	
TOPIC						

### Computing Programme of Study

#### Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

#### Aims

The national curriculum for computing 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.

#### Skills Progression

Throughout the year, pupils are expected to learn, apply and understand the following skills and processes in age appropriate tasks and activities.

They should be taught to:

##### Networks

- begin to use internet services to share and transfer data to a third party

##### Using Computer

- independently select and use appropriate software for a task
- independently select, use and combine a variety of software to design and create content for a given audience

##### E-Safety

- understand the need to only select age appropriate content

##### Net Searching

- use filters in search technologies effectively and appreciate how results are selected and ranked

##### Coding

- design, input and test an increasingly complex set of instructions to program a device
- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems
- design write and test simple programs that follow a sequence or instructions or allow a set of instructions to be repeated
- design, write and test simple programs with opportunities for selection, where a particular result will happen based on actions or situations controlled by the user
- use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency



# Year 5 Computing Skills Progression



	Year Group	Class	Teacher
UNIT	TERM 1	TERM 2	TERM 3
TOPIC			
Knowledge & Skills			
Pupils who are working above expectations			
Total number of pupils in class			
Pupils who have not yet reached expectations			
Teacher Comments			
Subject Leader Action			