

## Subject Area -Computing

### Rational Overview –

What does this subject look like at Chancel Primary School?

At Chancel, our school has a wide range of resources available including laptops, iPads, Chromebooks, desktop computers, visualisers and ClassVR. We have extracurricular links for children in offering numerous websites to access age-appropriate learning at home to further their education in a variety of subjects.

Computing lessons at Chancel are taken from the Purple Mash Scheme of Work and are delivered by class teachers. This provides a broad span of content that is age appropriate and builds on previous learning. Topics include: coding, online safety, spreadsheets, databases, game creation, 3D modelling.

An important feature of the school's ICT provision is its Computing Crew/eCadets. These are children from years 4, 5 and 6 who take on the additional responsibility of organising whole-school and class assemblies; activities for Safer Internet Days; termly challenges for eSafety in school; promoting acceptable use and prolonging life of our equipment; and they are regarded as computing experts and can provide assistance across the school.

### Intent (overarching aims- What skills do we wish our pupils to acquire?)

We aim to ensure that all pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation. To analyse problems in computational terms, and have repeated experience of writing computer programs in order to solve such problems. To evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems. To be responsible, competent, confident and creative users of information and communication technology.

Pupils in KS1 should be taught to:

- 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
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- 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.

Pupils in KS2 should be taught to:

- 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, and the
- opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected
- and ranked, and be discerning in evaluating digital content
- 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

At Chancel, we wish for children to be equipped with a confidence and understanding when using technology, to become vigilant, knowledgeable and responsible toward the advantages and potential dangers of the online world and become willing to embrace future change and opportunity within their digital lives.