

# Computing at Badsley

## Overall Rationale

In Computing children will be responsible, confident and creative users of technology who apply computational thinking beyond the computing curriculum. They will become digitally literate and have the confidence to participate in the digital world. They will know how to stay safe, whilst using technology and on the internet. They can identify risks and therefore keep themselves and others safe. All children will understand and follow our E Safety rules and know who to contact if they have concerns, including the use of report buttons. Ultimately, the children will be respectful, responsible and competent digital users who will have the knowledge to safely support themselves and others online.

## Content and Sequencing

All National curriculum objectives taught through using the Purple Mash scheme. Content and practice are used through the Purple Mash portal.

KS 1 - Pupils 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.

KS2 –

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.

## Meeting the needs of all Learners

SEND

- Adaptive teaching takes place
- Teachers identify and break down the components of the subject curriculum into manageable chunks for pupils who find learning more difficult, particularly those with cognition and learning needs. These may be smaller 'steps' than those taken by other pupils to avoid overloading the working memory.
- Units taught in manageable chunks of learning. Learning progressed week on week.
- Support from TA within class.
- Scaffold used to secure understanding and examples shown to give learners support.
- Visual representations/ learning mat supports are available to support every unit.
- Questions used to identify gaps in learning and support children making links.

Challenge

- Challenge tasks available within each lesson that can be used to extend learning.
- Set 2do to support children who want to extend learning and practice what has been taught in lesson.

## Key Concepts

Computing has the following 3 essential strands for learning,

**Computer Science** - Helps children understand how computers and networks work, and includes programming and problem solving.

**Information Technology** - Involves using computers for practical purposes, such as using search technology, collecting and presenting information, and using spreadsheets.

**Digital Literacy** - Focuses on the safe and responsible use of technology, including recognizing its advantages for communication and collaboration.

## EYFS

Rather than a scheme with set lessons, the early years resources are designed to integrate into the day-to-day routine and set-up of an early years setting with opportunities for using Mini Mash or Purple Mash as part of the Early Years curriculum to support children in working towards early learning goals. In addition, there are units of suggested ideas that focus on computing skills specifically, that can also be provided as opportunities for learning as part of the topics in other areas to give children a sound basis to explore topics using technology and to be ready for progressing through the Computing curriculum.

## Links to Other Subjects

Maths – Spreadsheets, pictograms, bar charts, line graphs

English – word processing, writing emails, spell check

Art – paint, 3D design, colour investigations

## Retrieval Practice

Each lesson begins with the key aims of the previous session being revisited. Alongside the key aims, vocabulary linked to the module which is being covered is also revisited. Knowledge and skill recap questions are available on the purple mash portal to support retrieval.

## Assessment and Outcomes

All lessons begin with an outcome for the end of a session.  
On spot assessment continually used by team stops within a lesson.  
End of unit quiz available to use.  
End of unit assessments completed by class teachers.  
Assessment document completed for each module highlighting areas of success and areas for development.

## Subject Leader Responsibility

- Leading CPD sessions for class teachers.
- Monitoring progression - book scrutiny.
- Collecting assessment sheets and analysing whole school areas of weakness.
- Support for teacher when required.
- Pupil voice – collecting opinions of the subject.