COMPUTING DECODED

For tomorrow's digital creators.

Morden PRIMARY SCHOOL
Learn - Achieve - Enjoy

Subject Story

Computing

Computing is a key skill in today's world; there aren't many areas of study or work that won't require a confident use of technology. We prepare children to be confident and responsible digital creators with a bespoke curriculum made just for Morden Primary. Safe computing practices, both on and offline, are modelled across the school not just within computing as a subject but embedded within all subjects.

We aim to give our children access to a wide range of devices and software to aid bringing their creativity to life. We provide a range of physical and computational problem solving (debugging) activities to foster decomposition of problems and enhance logical thinking processes to assist both individually and within collaborative work.

As a school community, we are diverse and children bring a large range of experience and skills to computing sessions. We encourage children to collaborate as much as possible to share these skills and build upon our aim to educate confident and responsible users of technology.

The National Curriculum states:

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.

If you were to walk into Computing lessons at Morden, you would see:

- Reference back to the unit overview at the start of each lesson, focussing attention on the skills to be developed in the proceeding learning activities.
- Retrieval practice, giving learners the chance to consolidate previous skills and knowledge.
- Key vocabulary is included in the lesson material which is displayed on the big screen during the input.
- Intros including revision of previous session to remember skills taught
  Instructional videos and or live demonstrations of skills taught and successes
- Confident and engaged learners using tools within the session to achieve the sessions objectives.
- Learners who are eager to work both as individuals and collaboratively to enhance their learning.
- Learners who will voice their thinking and question that which they don't yet understand.

- Teachers who have access to an online support engineer at all times throughout lessons to help resolve technical issues so not to interrupt the learning of the children.
- Inclusivity – learning accessible to all.

Pupil Voice

Y1: Children could talk about using Beebots and programming these to turn either left or right. Children were able to explain what an algorithm was and were observed working in teams.

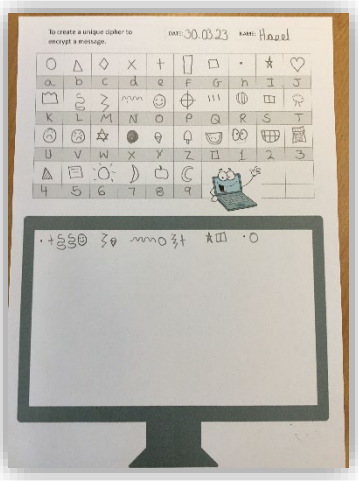
Y3: "We enjoyed gathering information using Google Forms, but sorting the data was tricky"

Y6: Showed good skill and knowledge, especially with regards to staying safe online and keeping their location and personal details secret when filming farewell videos for their digital memory box project.

An example of skills and knowledge progression within our Computing curriculum

Autumn	Understand what algorithms are	Debugging	Logical reasoning for prediction.	Networking	Using technology for a purpose.	Staying safe and respectful.
Y1		**Into the spider's web** start to learn debugging methods. To suggest where the error might be.	**Into the spider's web** Start predicting what might happen when an even occurs e.g. pressing a hyperlink		**A splash of colour** To start to understand how information is stored and retrieved on a digital device. Using a variety of applications to start to develop content.	**Into the spider's web** Starting internet safety, looking at what to do if anything pops up on the screen unexpected. Who to talk to. How to record evidence.
Y2		**Tell me about it** Recognising errors in email addresses. Suggesting possible fixes			**Show me what you've got** To begin to use multiple files in one presentation. To further develop file management to store and retrieve files.	**Tell me about it** Start to develop understanding of respectful language and appropriate behaviour online. Start to understand consequences of misuse and/or cyber bullying.
Y3	**Answer me this** To implement loops and variables within algorithms that fulfil a task. Take user input and use this to engage with the user. Create variables for specific data storage.	**Answer me this** Identifying errors in code and suggesting fixes. Working with peers to find errors and suggest possible fixes.	**Answer me this** Predicting outcome of scripts Using previous experience to influence predictions.	**LANWAN thinking** To start to visualise local area networks. To understand the difference between LAN and WAN To begin to understand IP addresses and how computers communicate.		**LANWAN Thinking** Develop understanding of networks and how to secure files and folders. Understand how usernames and passwords allow access in different ways.
Y4		**Becoming a web designer** Identify line numbers of code that are not displaying using browser development tools	**Becoming a web designer** Predict logically what tags might mean. Use development tools to examine code and pick out areas of interest.		**Cool when you're part of a team** Using multiple online communication systems to share and create content. To understand that content can be stored not only physical devices but cloud networks too.	**Becoming a web designer** **Cool when your part of a team** Further developing use of appropriate language. Develop understanding of copyright and ownership of content. Develop working together online.

Outstanding examples of learning



Y5 Looking at Encryption. Starting with basic ciphers.

Y5 creating programs using block coding in Scratch

Y2 Beginning to understand algorithms and the importance of chronology by creating recipes.

Successes in 2022 – 2023

- Computing Decoded is now implemented from Y1 to Y6 and is showing a general upward trend in assessment data so far.
- Children are starting to show more confidence in Computing after the effects of the pandemic.
- Children showing pride in their work and wanting to save it for future reference.

Priorities for 2023 – 2024

- Continue to develop and improve how the children are assessed within computing and give children a channel to self-evaluate on their computing session.
- Increase the differentiation as much as possible within activities allowing children to gain greater depth in understanding and creativity.
- Further develop technological resources for Early Years
- Use iPads and other technology in greater depth to enhance learning opportunities.
- Children to have an input into Morden Primary Schools social media platforms to increase awareness of online safety and etiquette.
- Gallery of children's work …

Ambitions for Computing at Morden Primary School

- All children to have access to an online portfolio of their work throughout their primary education journey, from Year 1 to Year 6.
- For children in UKS2 to support younger children in online safety strategies and have an input into Morden Primary's social media presence.

Useful Websites

Morden subscribe annually in order to gain access to award winning educational resources to help enrich our children's curriculum content. There is so much provided by the LGFL it would take years to access it all. By use of their login information, which is available through our Morden Primary Intranet.

The online applications span age ranges from EYFS (Early Years and Foundation Stage) all the way through to KS3 (Key Stage 3) as well as subjects' literacy, maths, space explorations, online safety, dance, music and so many more.