

Resources

The Computing curriculum is delivered through a mixture of 'unplugged' activities, programs or apps on an iPad or laptop, and programming resources such as Ozobots.

Application in other Curriculum Areas:

Wherever possible, links are made with other curriculum areas, so that Computing is seen as a tool to support and present other subjects, as well as a subject to learn the skills of in its own right.

Research Base:

Sherrington, T, (2019) *Rosenshine's Principles in Action*

Liane O'Kane. (2019, July) *Computing Pedagogy for Computing Mastery*, <http://www.icompute-uk.com>

The Royal Society. (2017, Nov). *After the reboot: computing education in UK schools*

Sue Sentance, Jane Waite & Maria Kallia (2019) Teaching computer programming with PRIMM, *Computer Science Education*, 29

Crick. (2017, April). Royal Society Computing Education Project Review of Literature: *Literature on effective computing pedagogy*.

UK council for Internet Safety (2020) *Education for a Connected World*.

Teaching and Learning in Computing



Hamble Primary School

023 80453298

Information for Parents

By working together we help our children to succeed.

At Hamble Primary School we are committed to providing the best possible educational outcomes for all children. We aim to ensure that children leave us with a minimum of the Computer knowledge specified within the National Curriculum:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf

Lessons are based on those produced by Teach Computing and supported by the framework outlined in the document 'Education for a Connected World'. Online Safety is embedded across all areas of Computing as well as with our PDL curriculum.

Computing has three strands:

- Information Technology - how to use technology, including programs such as Word, Excel, and art programs
- Computer Science - knowing what to use and how to use it safely and responsibly
- Digital Literacy - computational thinking, programming

Each Computing unit will focus on one or more **specific skills**.
The skills we teach are:

- **Use appropriate vocabulary** when analysing programs and solving problems.
- **Be proficient** in the technical and practical skills needed in coding for a variety of purposes.
- **Be proficient** in using information technology in a range of contexts.
- **Think critically and responsibility** when using information and communication technology.

The Programming Learning Journey at our school

1. Predict:

Focus on functions of code
Encourage discussion
Work in pairs or threes

2. Run:

Provide students with working code to run
Check against prediction

3. Investigate:

Use a variety of activities; tracing, annotating or questioning
Discuss code in small groups

4. Modify:

Modify code in small steps to add new functionality
Apply new knowledge of code structure
Gradual increase in difficulty

5. Make:

Create a new program
Practise the programming skills which have been learnt
Application through design or open task

PRIMM is a way of structuring programming lessons that focuses on: reading code before it's written; working collaboratively to talk about programs; reducing cognitive load by unpacking and understanding what code is doing; gradually taking ownership of programs when ready.