

Enquire Learning Trust - Computing Curriculum

At The Enquire Learning Trust, we believe that it is vital for all our pupils to learn from and about Computing and Technology, so that they can understand the world around them. Through teaching our computing curriculum, we aim to equip our children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. It is our intention to enable children to find, explore, analyse, exchange and present information as well as having the skills to manipulate, develop and interpret different forms of technology in an ever-changing world.

In such a fast-moving curriculum, we are constantly looking at new ways of delivering relevant and exciting activities, while still delivering the fundamental skills needed for computing. Using technology safely and responsibly is a main priority and ensuring all are able to use the internet and equipment appropriately is of paramount importance. We encourage our pupils to make links across the curriculum, the world and our local community, to reflect on their own experiences, which are designed in our 3D curriculum, allowing horizontal and vertical links with previous year groups.

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 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.

Key stage 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.

Key stage 2

Pupils 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.

Please use the ELT Assessment statements as guidance for progression through the curriculum

| | | | | | | | |
|--------|---|---|--|--|--|--|---|
| Year 6 | E-safety: Google It's cool to be kind Interland's Kind Kingdom | Digital Literacy: 3D modelling using Google Sketchup. | E-safety: Why is Social Media Free? Fake News in real life. | Coding: Use variables, coding with variables | Coding: Use of types and initialisation in code, parameters and problem-solving skills | Digital Literacy: Childnet video competition | Coding: The use of Arrays in coding, visualise data and coding concepts |
|--------|---|---|--|--|--|--|---|

Assessment

This computing curriculum is also paired with an **assessment framework** to support teacher assessment, next steps planning and gap analysis. This framework provides information that can be used to help plan and assess pupil knowledge, understanding and skills in primary computing. It covers the main expectations for children at the end of each Key Stage. It sets out reasonable expectations of what children could achieve in each year at primary school, thus allowing teachers to track progress towards the statutory attainment targets.

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.
















The progression statements derive from the Programme of Study for computing; they break down the original bullet points into shorter, more manageable chunks. Each statement is accompanied by 'What to look for' descriptors. These are designed to support planning for teaching and learning. The framework sets out a sequence that illustrates progression and that can be used to make judgements about pupil achievements. The framework is not intended to be definitive – it should be seen as indicative rather than prescriptive.

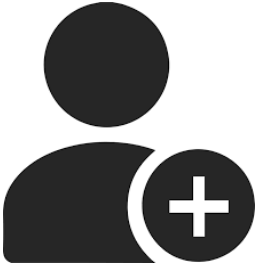







The framework is divided into three main strands and an app specific sub strand that covers the National Curriculum.

- E-safety
- Computing and Digital Literacy
- Coding
- App specific learning linked to digital literacy

Software and Apps used













| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|--|--|---|--|---|---|---|
| <p>iPad Apps</p>  | <p>Scratch Jr</p>  <p>Beebots app</p>  <p>Adobe Spark</p>  <p>Apple Photos</p>  <p>Pages</p>  <p>DigiDucks Big Decision</p>  | <p>Scratch Jr</p>  <p>Piccollage App</p>  <p>Photo Editor – Axiem</p>  | <p>Tynker</p>  <p>CodeSpark Academy</p>  <p>iMovie</p>  <p>iOS Camera</p>  <p>Keynote</p>  | <p>Tynker</p>  <p>Keynote</p>  <p>iMovie</p>  <p>Pages</p>  | <p>Swift Playground</p>  | <p>Swift Playground</p>  <p>Kahoot</p>  |















| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|--|--------|--|---|--|---|---|
| <p>Windows Software</p>  | | <p>Paint.net</p>  | <p>Microsoft Word</p>  <p>Microsoft PowerPoint</p>  | <p>Paint.net</p>  <p>Microsoft Word</p>  <p>Microsoft PowerPoint</p>  | <p>Microsoft Word</p>  <p>Microsoft Excel</p>  <p>Microsoft Publisher</p>  <p>Scratch desktop (or online)</p>  <p>Microsoft PowerPoint</p>  <p>Pivot Animator</p>  | <p>Scratch desktop (or online)</p>  <p>Mozilla X-Ray</p>  |

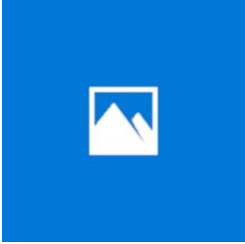






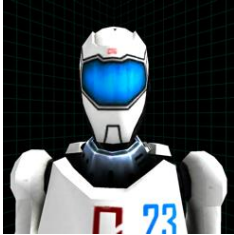





| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---|--|--------|--------|--------|---|---|
| <p>Online Services requiring account creation (Free)</p>  | <p>Adobe Account for Spark</p>  | | | | | <p>SketchUp (Requires class Google account)</p>  |
| <p>Online services needing Office 365 login (Pupil and teacher)</p>  | | | | | <p>Microsoft SharePoint</p>  <p>Microsoft Word online</p>  <p>Microsoft Excel online</p>  <p>Microsoft Publisher online</p>  | |

Equivalent Programs

It is good practice to mention the equivalent services from competing companies, as real world will use different software suites. Functions and skills learned in one are often transferable to others.

| | | | | |
|------------------------|--|---|--|---|
| Vendor |  Microsoft |  Apple |  Google |  OTHER |
| Word Processing |  Microsoft Word |  Apple Pages |  Google Docs |  WPS Office |
| Spreadsheet |  Microsoft Excel |  Apple Numbers |  Google Sheets |  WPS Office |

| | | | | |
|-------------------------------|--|---|--|---|
| Presentation |  <p>Microsoft PowerPoint</p> |  <p>Apple Keynote</p> |  <p>Google Slides</p> |  <p>WPS Office</p> |
| Online storage |  <p>Microsoft OneDrive</p> |  <p>Apple iCloud</p> |  <p>Google Drive</p> |  <p>Dropbox</p> |
| Website Creation |  <p>Microsoft SharePoint</p> | |  <p>Google Sites</p> | |
| Page layout publishing |  <p>Microsoft Publisher</p> |  <p>Apple Pages</p> |  <p>Lucidpress</p> |  <p>WPS Office</p> |

| | | | | |
|---------------------------------|--|---|--|--|
| <p>Photo Editing</p> |  <p>Photos</p> |  <p>Apple Photos</p> |  <p>Google Drawings</p> |  <p>Paint.net</p> |
| <p>Other Coding Apps</p> |  <p>Kodable</p> |  <p>Microsoft Kodu</p> |  <p>Lightbot</p> |  <p>A.L.E.X</p> |
| |  <p>Little Red Coding club</p> | | | |
| <p>Useful apps</p> |  <p>Google Earth</p> |  <p>Google Expeditions</p> |  <p>Epic Reading app.</p> |  <p>AR-Kid Space.</p> |

