

# Computing at Eversley

*"Everybody should learn to program a computer, because it teaches you how to think." Steve Jobs.*



*I want you to know that you too can make new programs which create new fun ways of using computers and using the Internet. I want you to realize that, if you can imagine a computer doing something, you can program a computer to do that. Unbounded opportunity ... limited only by your imagination. And a couple of laws of physics.*

(Tim Berners-Lee- founder of the internet)

The Department for Education (DfE) says children who understand computing will be able to change the world:

*A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world..... 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.*

(Department for Education, 2013)

At Eversley, we believe that an engaging and motivating Computing curriculum will enable our learners to be able to use a variety of knowledge and skills, which they are able to maintain throughout and after their time with us. This key knowledge and skills includes using computational thinking and creativity to understand and change the world. This encompasses using technology to reach a wide audience and using different programs to create their work. It also involves making deep links with mathematics, science and design and technology.

## During EYFS at Eversley

Although Computing is no longer assessed as an early learning goal, our children have opportunities to do the following, during free flow sessions;

- Use BeeBots to support positional language and to follow instructions
- Understanding about past and present and how technology is used today
- Role play opportunities e.g. computer at the builder's yard, cash register as part of a shop etc.
- Children are given the opportunity to use technology purposefully, e.g. taking a photo of their own work to upload to Tapestry.

## During Key Stage 1 at Eversley

Pupils are 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

## During Key Stage 2 at Eversley

Pupils are 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
<p><b>Planning</b></p> <ul style="list-style-type: none"> <li>• The Computing curriculum map shows the units to be covered each term and by each year group</li> <li>• There is a medium term plan for each unit of work</li> <li>• Plans and resources are designed to scaffold for the needs of pupils with SEND and those new to English</li> <li>• Plans are annotated and adapted to show how less able and those new to English will access the content</li> <li>• The most able children are planned for so that they can deepen their Computing knowledge and skills</li> <li>• Computing knowledge and skills will be explicitly taught, and units allow time for children to apply them independently</li> </ul>	<p><b>Teaching</b></p> <ul style="list-style-type: none"> <li>• A unit should be covered over a half term</li> <li>• Flexible groupings are used during lessons e.g. mixed ability group work, paired work, guided and independent work and whole class work</li> <li>• Lessons will provide opportunities to learn and develop new subject specific vocabulary, knowledge and skills</li> <li>• Key stage 1 and 2 each have a weekly 1 hour Computing lesson</li> <li>• E-safety runs throughout the whole year as appropriate. Units have e-safety embedded</li> <li>• Teaching will be in line with the school Teaching &amp; Learning policy</li> </ul>	
<p><b>Marking and feedback</b></p> <ul style="list-style-type: none"> <li>• Pupils are given immediate verbal feedback during lessons</li> <li>• Self and peer assessment</li> </ul>		
<p><b>Assessment Formative:</b></p> <ul style="list-style-type: none"> <li>• AFL should be used within each lesson to establish next steps for pupils</li> <li>• Each lesson is followed up with an opportunity for self-assessment</li> <li>• Electronic portfolios of work are created and reviewed</li> <li>• Each unit is assessed as it is completed. This enables us to monitor progress across the subject</li> </ul>	<p><b>Resourcing and display</b></p> <p>Computing Suite:</p> <ul style="list-style-type: none"> <li>• Displays are kept up to date and relevant to learning, displaying subject specific vocabulary and concepts that are being taught in Computing</li> </ul> <p>Resources:</p> <ul style="list-style-type: none"> <li>• Resources are stored in the Computing Suites, and computing cupboards</li> <li>• A range of equipment is available for pupils- for example; Bee-Bots, cameras, iPads &amp; Micro-Bits</li> <li>• Interactive “Smart” boards in each classroom</li> <li>• E-Safety posters around the school on how to report an incident online</li> </ul>	
<p><b>Monitoring</b></p> <p>Monitoring is undertaken by teachers, the subject leader and SLT during the school year to measure the impact of the Computing curriculum.</p> <p>This will include;</p> <ul style="list-style-type: none"> <li>• learning walks during lessons</li> <li>• Deep dives to reflect on the effectiveness of the curriculum content</li> <li>• discussions with pupils to assess the impact of the curriculum</li> <li>• reviews of children’s knowledge of skills learnt, taken from assessment data and portfolios</li> <li>• audits of staff training needs to improve subject knowledge and confidence</li> <li>• reviews of the subject leader’s action plan</li> <li>• Inventory checks yearly on all ICT equipment throughout the school</li> </ul>		

