



Computing at Amington Heath

How is this subject taught?

Children learn computing through discrete lessons with cross-curricular links where possible. They have a discrete lesson weekly which focuses on three strands of the curriculum: coding, computer skills and physical systems. Esafety is embedded throughout to ensure its high profile is maintained. Progress and coverage is evident in our whole class Computing floor books.

In addition to the specific Computing lessons, the vast array of devices in school mean that ICT is also used as a tool to support learning throughout all phases. Children also learn about computing and Esafety within other subject areas such as DT and PSHE.

Plan for progression

The curriculum has been mapped to ensure that knowledge and skills build upon prior learning from knowledge and understanding of the world in Nursery to Year 6. Internet safety is also carefully mapped to ensure that students become confident and safe users of the internet.

Enrichment

Computing lessons are enhanced with enrichment activities such as visits from Google –Be internet legends and coding and robotics clubs/workshops.



Amington Heath Whole School Overview in Computing

The yellow columns are applications of objectives through purposeful tasks.

Blue units of work are coding units and these are supported by Espresso coding scheme of work.

Green units are closing the gap units, which support key skill development targeted especially for pupils within our school community.

All classes in the first half term of the year will learn and carry out basic computing skills. These will consist of logging into a range of devices, saving, printing, and using touchscreen, touch pad and mouse for controlling the cursor.

Alongside this, Esafety objectives for each year group will be taught as stated in the Esafety progression ladder. This can be found in the school's Esafety policy. This in addition to those objectives covered through PSHE sessions that also cover how to keep safe online.

Our Esafety policy can be found here: [Amington Heath Primary and Nursery School – Esafety Policy](#)

<u>Year Group</u>	<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<u>Year 1</u>	<p><u>We are controllers</u></p> <p>Bee Bot (Ipads) Algorithms - Unit begins without bee bots. Following and writing instructions and then physically acting out the algorithms practically.</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Follow instructions • Give instructions • Program Beebot • Design route • Define term algorithm • Define term bug • Define term debug • Plan and test algorithm 	<p><u>We are storytellers</u></p> <p>Producing a talking book</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Log on to laptops • Move mouse • Copy and paste • Open the internet • Search a key word • Open a document • Screen shot on ipads • Import into puppet pals • Record own voice 	<p><u>We are zoologists</u></p> <p>Research skills</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Opening chrome • Using search engines • Recognising appropriate sources 	<p><u>We are presenters</u></p> <p>Developing word processing skills</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Typing speed • Copy and paste using right click • Save, retrieve and organise data by adding folders and naming them. • How to change position, colour, size and font. • Print from laptop 	<p><u>We are coders</u></p> <p>Espresso Coding</p> <p>Unit 1a to unit 1b</p> <ul style="list-style-type: none"> - Bubbles - Space travel <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>	<p><u>We are Gardeners</u></p> <p>Simulating plant growth</p> <p>https://seedsurvivor.com/just-for-kids/games/</p> <p>https://pbskids.org/learn/scratchjr/activities/how-plants-grow</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Define input • Define output • Real life applications of technology • Online safety with games • Know how input effects output

<p><u>Year 2</u></p>	<p><u>We are painters</u></p> <p>Illustrating an eBook</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Ipad app ebook • Website - use ebook • Typing and keyboard short cuts • Adding effects 	<p><u>We are programmers</u></p> <p>Algorithms (simple set of instructions) Pupils design own bee bot mat and write instructions (algorithm) for the correct completion of it.</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Floor bee bots • Ipad bee bots • Online Turtle movements • Dino app 	<p><u>We are zoologists</u></p> <p>Bug hunt data (creating info banks on different bugs) Create a Graph Classic - Bar Graph - NCES Kids' Zone (ed.gov)</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Recap word processing skills • Snipping tool • Inputting values • Export data • Combining media 	<p><u>We are coders</u></p> <p>Espresso Coding Unit 2a</p> <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>	<p><u>We are presenters</u></p> <p>Creating and animating PowerPoint presentations.</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • inset new slides • insert clip art • copy and paste using tool bar and right click. • animations • sound effects • inset voice recordings 	<p><u>We are coders</u></p> <p>Espresso Coding Unit 2B</p> <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>
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<p><u>Year 3</u></p>	<p><u>We are animators</u></p> <p>Creating a cartoon</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Augmented reality • Paint • Puppet pals • Combining media • Media manipulation 	<p><u>We are safe</u></p> <p>Communicating safely and respectfully online</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • How to send emails and why we use emails instead of letters sometimes. • What are the advantages and disadvantages of email • What do you not share through email? • Blog <p>Link to researching about topic or science and sending on the information and creating relevant year 3 pages and posts on the blog.</p>	<p><u>We are opinion pollsters</u></p> <p>Opinion polling</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Microsoft forms • Monkey survey • Create survey • Send out survey • Analyse results 	<p><u>We are coders</u></p> <p>Espresso Coding Unit 3a</p> <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>	<p><u>We are presenters</u></p> <p>Videoin performance Green screen</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Using the camera function • Filters • Framing • Green screen technology • Voice over • Editing clips together • Apple TV 	<p><u>We are coders</u></p> <p>Espresso Coding Unit 3B (LA)</p> <p>MA/HA – begin to code using Scratch</p> <ul style="list-style-type: none"> - Sprite - Stage - Start code blocks - Motion - speak <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>
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<p><u>Year 4</u></p>	<p><u>We are meteorologists</u></p> <p>Presenting the weather</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Data loggers • Take measurements • Open excel • Input data • Make graphs • Show work in powerpoint 	<p><u>We are composers</u></p> <p><u>iMusic</u> Creating music using editing software</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • combining sounds • save • retrieve • combine two pieces of composed music • transitions • overlaps 	<p><u>We are coders</u></p> <p>Espresso Coding Unit 4a</p> <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>	<p><u>We are co-authors</u></p> <p>Producing a Wiki Then evaluate using survey monkey software and represent data</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Web based skills • Safe searching • Creating banners • Hyperlinks • Importing • Exporting • Evaluating reliability 	<p><u>We are coders</u></p> <p>Espresso Coding Unit 4B</p> <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>	<p><u>We are gamers</u></p> <p>Making a game for the IWB on SMART/Active inspire board.</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Creating slides • Design • Animating • Linking slides and images • Adding effects
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<p><u>Year 5</u></p>	<p><u>We are architects</u></p> <p>Creating a virtual artefacts Free 3D Modelling Software – 3D Design Online</p> <p>KEY SKILLS Work in 3d layered dimensions Combine perspectives Input values Design process Test and evaluate</p>	<p><u>We are coders</u></p> <p>Espresso Coding Unit 5a</p> <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>	<p><u>We are editors</u></p> <p>Video editing</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Importing music • Editing music • Overlapping digital sounds • Recording sounds using microphones • Importing images • Inserting text • Taking accurate photographs. • Scanning 	<p><u>We are designers</u></p> <p>Designing and making own website</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Writing for purpose • Hyperlinks • All three methods for Copy and paste 	<p><u>We are statisticians</u></p> <p>Analysing data</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Open excel • Input data • Create graphs • Average, total, sum, takeaway formula • Create a simple database using access about types of books 	<p><u>We are coders</u></p> <p>Espresso Coding Unit 5B or 6a based on ability Create app to publish for smart phones</p> <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>
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Year 6	<p><u>We are coders</u></p> <p>Espresso Coding Unit 6a/6b</p> <p><u>SEE ESPRESSO PLANNING -CONTAINS PROGRESSION OF KEY SKILLS</u></p>	<p><u>We are game developers</u></p> <p>Creating an adventure game PowerPoint narrative game</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Hyperlinking slides • Duplicating • Link slides • Animation • Visual effects • Audio • Codes create 	<p><u>We are coders</u></p> <p>Coding through scratch to create, test and publish various games including Mazes and Pacman style games.</p>	<p><u>We are town planners</u></p> <p>TASK 1- design 3d home space using software Documents – SmartDraw</p> <p>TASK 2- create a simulation of town using scratch with variables</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Design and write programs. • Use sequence, selection and repetition in programmes 	<p><u>We are publishers</u></p> <p>Creating a year book_- Unit 6.6 Publisher</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Formatting skills • Positioning • Template use • How to create own template • Making booklet 	<p><u>We are creators</u></p> <p>Combining media Use the different apps to record, video, audio and save music formats. They combine.</p> <p>KEY SKILLS</p> <ul style="list-style-type: none"> • Importing music • Editing music • Overlapping digital sounds • Recording sounds using microphones • Importing images • Inserting text • Taking accurate photographs. • Scanning • Combining sounds • Save • Retrieve • Combine two pieces of composed music • Transitions • Overlaps <p>-</p>
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