



KING'S ACADEMY MEADOW VALE



Curriculum Progression Map - Computing

EYFS Expectations

In EYFS, computing is about foundational digital skills and exploring computing through play, focusing on cause and effect, sequencing (Bee-Bots), and digital creativity (interactive whiteboard/ iPads), linked to the Understanding the World area of the Foundation Stage Curriculum. Children learn to use technology purposefully and safely, even with non-digital tools like role-play phones, cameras, computer keyboards and tills.

Key Stage 1 National Curriculum Expectations

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 National Curriculum Expectations

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



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	<ul style="list-style-type: none"> ● use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
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	Autumn	Spring	Summer
Year 1	<p><u>My Online Life</u></p> <ul style="list-style-type: none"> ● 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 	<p><u>Coding</u></p> <ul style="list-style-type: none"> ● 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 	<p><u>Unplugged</u></p> <ul style="list-style-type: none"> ● 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
Year 2	<u>My Online Life</u>	<u>Coding</u>	<u>Unplugged</u>



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	<ul style="list-style-type: none">● 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.	<ul style="list-style-type: none">● Understand what algorithms are and how they are implemented as programs on digital devices.● Understand that programs execute by following precise and unambiguous instructions.● Create and debug simple programs.● Use logical reasoning to predict the behaviour of simple programs.	<ul style="list-style-type: none">● Use technology purposefully to create, organise, store, manipulate and retrieve digital content.● Research important person: Marc Hannah (American electrical engineer).● Recognise common uses of information technology beyond school.
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Year 3	<p><u>My Online Life</u></p> <ul style="list-style-type: none">● use technology safely, respectfully and responsibly;● recognise acceptable or unacceptable behaviour;● identify a range of ways to report concerns about content and contact	<p><u>Computing unplugged – Computational Thinking</u></p> <ul style="list-style-type: none">● 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 logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs● To 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● to use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour	<p><u>Coding</u></p> <ul style="list-style-type: none">● 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
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Year 4	<p><u>Digital Literacy - My online life</u></p> <ul style="list-style-type: none">● About different apps that use the Internet.● Different methods of collaboration over the internet.● About Fake News and how to identify Fake News.● About potential online risks. About the safety features of websites and apps.● About reporting concerns to a trusted adult.● About online relationships. About online privacy.● About the term 'digital footprint'.● About how to act appropriately & respectfully online.● About how to deal with online bullying. About how photos can be altered digitally.● About copyright laws and plagiarism.● About the positive and negative effects technology may have on health.● About downloading, viruses and malware.● About choosing a secure password.● About using an avatar	<p><u>Information Technology - Coding</u></p> <ul style="list-style-type: none">● 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	<p><u>Computer Science - unplugged</u></p> <ul style="list-style-type: none">● Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
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Year 5	<p><u>My Online Life</u></p> <ul style="list-style-type: none">● Use technology safely, respectfully and responsibly;● recognise acceptable or unacceptable behaviour;● identify a range of ways to report concerns about content and contact	<p><u>Computing unplugged – Computational Thinking</u></p> <ul style="list-style-type: none">● 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● To 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● To use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour	<p><u>Coding</u></p> <p>Speed, Direction and Co-ordinates & Random Numbers and Simulations</p> <ul style="list-style-type: none">● 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
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Year 6	<p><u>My Online Life</u></p> <ul style="list-style-type: none">● Explore how to use social media safely.● Discuss the health impacts of social media and too much screen time and consider ways to manage this.● Discuss how to use social media responsibly and respectfully.● Understand the risks of using social media and how to deal with concerns should they arise.● Discuss the use of AI and the rise of dis/mis information.	<p><u>Coding</u></p> <ul style="list-style-type: none">● Explore how codes are used in the creation of games.● Debug programs to complete tasks.● Explore how real life coding works.● Learn how to write programs using text, and apply your coding know-how to build quizzes, draw graphics and run simulations.● Discover how the web is built.● Learn how web pages are designed, structured and presented with HTML mark-up and CSS.● Add tags, images, and links to bring your own web pages to life.	<p><u>Unplugged</u></p> <ul style="list-style-type: none">● Understand the consent given to apps when agreeing to their terms and conditions. Understand how your data can be used.● Explore how the internet works and the processes that bring search engines to life. <p><u>Research - Alan Turing</u></p> <ul style="list-style-type: none">● Research Alan Turing and understand the significance of his work on modern society.