

Primary Phase Curriculum Map 2018-19



William Hulme's Grammar School
The best in everyone™
Part of the Learning

Subject Area:

Computing

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	<p>We are treasure hunters</p> <p>E-safety- Understand how technology is used and how to use it safely. E-safety- NSPCC</p> <p>Assembly: online bullying and who to talk to if you need help</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. • Recognise common uses of information technology beyond school. 	<p>We are TV chefs</p> <p>E-safety- Understand how to safely take and store videos and being careful when sharing any information online.</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. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school. • Use logical reasoning to predict the behaviour of simple programs. 	<p>We are painters</p> <p>E-safety - Use the web safely to find ideas for an illustration. E-safety- safer internet day: positive use of online technology and staying safe online</p> <ul style="list-style-type: none"> • 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. 	<p>We are collectors</p> <p>E-safety - Know what to do if they encounter pictures that cause concern.</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. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about 	<p>We are storytellers</p> <p>E-safety – Understand how to retrieve information safely from the internet and what websites are most suitable.</p> <ul style="list-style-type: none"> • 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 ... 	<p>We are celebrating</p> <p>E-safety –Know how to keep information private and where to go to if they have a concern about anything online.</p> <ul style="list-style-type: none"> • 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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2				<p>content or contact on the internet or other online technologies.</p> <ul style="list-style-type: none"> Recognise common uses of information technology beyond school. 		
	<p>We are astronauts</p> <p>E-safety- NSPCC Assembly: online bullying and who to talk to if you need help</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>We are games testers</p> <p>E-safety - Be aware of how to use games safely and in balance with other activities</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. Use logical reasoning to predict the behaviour of simple programs. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private. 	<p>We are photographers</p> <p>E-safety- Understand how to safely take and store videos and being careful when sharing any information online.</p> <p>E-safety- safer internet day: positive use of online technology and staying safe online</p> <ul style="list-style-type: none"> 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 	<p>We are researchers</p> <p>E-safety - Develop research skills through searching for information on the internet.</p> <ul style="list-style-type: none"> 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. 	<p>We are detectives</p> <p>E-safety - Be aware of online safety issues when using email.</p> <ul style="list-style-type: none"> 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. 	<p>We are zoologists</p> <p>E-safety –Know how to keep information private and where to go to if they have a concern about anything online.</p> <ul style="list-style-type: none"> 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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3			technologies.			
	<p>We are programmers</p> <p>E-safety- NSPCC Assembly: online bullying and who to talk to if you need help</p> <ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts. • Use sequence ... in programs; work with variables and various forms of input and output. • Use logical reasoning to detect and correct errors in algorithms and programs. • Select, use and combine a variety of software ... to design and create ... content that accomplish(es) given goals, including ... presenting ... information. 	<p>We are bug fixers</p> <p>E-safety- Recap how technology is used and how to use it safely.</p> <ul style="list-style-type: none"> • Debug programs that accomplish specific goals. • 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>We are presenters</p> <p>E-safety- safer internet day: positive use of online technology and staying safe online</p> <ul style="list-style-type: none"> • 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. • Work with various forms of input and output. • Use technology safely, respectfully and responsibly. 	<p>We are vloggers</p> <p>E-safety - Develop understanding of how the internet, the web and search engines work.</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. • 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 content that accomplish given 	<p>We are communicators</p> <p>E-safety - Be aware of broader issues surrounding email, including 'netiquette' and online safety.</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. • 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. 	<p>We are opinion pollsters</p> <p>E-safety - Understand some ethical and legal aspects of online data collection.</p> <ul style="list-style-type: none"> • 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. • 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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
				<p>goals, including collecting, analysing, evaluating and presenting information.</p> <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. 	<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. 	
Year 4	<p>We are software developers</p> <p>E-safety- NSPCC Assembly: online bullying and who to talk to if you need help</p> <ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals. • 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 	<p>We are toy designers</p> <p>E-safety- recap how the internet, the web and search engines work</p> <ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. • Use sequence, selection, and repetition in programs; work with 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>We are musicians</p> <p>E-safety- safer internet day: positive use of online technology and staying safe online</p> <ul style="list-style-type: none"> • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • Understand computer networks including the internet; ... and the opportunities they offer for communication and collaboration. • Be discerning in evaluating digital content. 	<p>We are HTML editors</p> <p>E-safety - Understand some of the risks in using the web.</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 technology safely, respectfully and responsibly; know a range of ways to report concerns and unacceptable behaviour. 	<p>We are co-authors</p> <p>E-safety - Become familiar with Wikipedia, including potential problems associated with its use.</p> <ul style="list-style-type: none"> • Solve problems by decomposing them into smaller parts. • 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. 	<p>We are meteorologists</p> <p>E-safety - Recap ethical and legal aspects of online data collection.</p> <ul style="list-style-type: none"> • Work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work. <ul style="list-style-type: none"> • 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

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	work and to detect and correct errors in algorithms and programs.		<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Use and combine a variety of software (including internet services) to accomplish given goals, including presenting information. 	<ul style="list-style-type: none"> Use ... a variety of software (including internet services) ... to ... create ... content ... including ... presenting information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	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.
	<p>We are game developers</p> <p>E-safety- NSPCC Assembly and workshops: online bullying and who to talk to if you need help</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 	<p>We are cryptographers</p> <p>E-safety - Understand the need for private information to be encrypted. Appreciate the need to use complex passwords and to keep them secure.</p> <ul style="list-style-type: none"> Have some understanding of how encryption works on the web. Use logical reasoning to explain how some simple 	<p>We are artists</p> <p>E-safety- safer internet day: positive use of online technology and staying safe online</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 	<p>We are web developers</p> <p>E-safety - Question the plausibility and quality of information.</p> <p>Develop their understanding of online safety and responsible use of technology.</p> <ul style="list-style-type: none"> Understand computer networks including the internet; how they can provide multiple services, such as the 	<p>We are bloggers</p> <p>E-safety - Develop a critical, reflective view of a range of media, including text.</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 	<p>We are architects</p> <p>E-safety- recap reliability of sites such as Wikipedia and problems that could occur.</p> <ul style="list-style-type: none"> Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>smaller parts.</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. • 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... 	<p>algorithms work and to detect and correct errors in algorithms and programs.</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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<p>algorithms work and to detect and correct errors in algorithms and programs.</p> <ul style="list-style-type: none"> • 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. 	<p>world wide web; and the opportunities they offer for communication and collaboration.</p> <ul style="list-style-type: none"> • 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 	<p>communication and collaboration.</p> <ul style="list-style-type: none"> • 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. • ... be discerning in evaluating digital content. 	<ul style="list-style-type: none"> • 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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6				contact.		
	<p>We are adventure gamers</p> <p>E-safety - Develop an awareness of the capabilities of smartphones and tablets. E-safety- NSPCC Assembly and workshops: online bullying and who to talk to if you need help</p> <ul style="list-style-type: none"> • Learn some of the syntax of a text-based programming language. • Use commands to display text on screen, accept typed user input, store and retrieve data using variables and select from a list. • Plan a text-based adventure with multiple 'rooms' and user interaction. • Thoroughly debug the program. 	<p>We are computer thinkers</p> <p>E-safety – Recap and develop a critical, reflective view of a range of media, including text.</p> <ul style="list-style-type: none"> • Develop the ability to reason logically about algorithms. • Understand how some key algorithms can be expressed as programs. • Understand that some algorithms are more efficient than others for the same problem. • Understand common algorithms for sorting and searching. • Appreciate algorithmic approaches to problems in mathematics. 	<p>We are advertisers</p> <p>E-safety- safer internet day: positive use of online technology and staying safe online</p> <ul style="list-style-type: none"> • Think critically about how video is used to promote a cause. • Storyboard an effective advert for a cause. • Work collaboratively to shoot suitable original footage and source additional content, acknowledging intellectual property rights. • Work collaboratively to edit the assembled content to make an effective advert. 	<p>We are network technicians</p> <p>E-safety- importance of only communicating with people online when necessary</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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<p>We are travel writers</p> <p>E-safety- identify different ways to report concerns from online</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 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 	<p>We are publishers</p> <p>E-safety - Further develop knowledge, skills and understanding in relation to creating a website.</p> <ul style="list-style-type: none"> • Understand computer networks including the internet 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,

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					<p>goals, including collecting, analysing, evaluating and presenting data and information.</p> <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. 	<p>evaluating and presenting data and information.</p> <ul style="list-style-type: none"> • Use technology safely, respectfully and responsibly.