

School Partnership

Computing Policy

Policy produced by school

Adopted by [Governors FGB](#)-Academic year 2023/24 updated 04.09.23

Review date- As changes are made

Intent of our curriculum

Curriculum design

In the ever-changing digital world, using computers safely and understanding how they work is a national curriculum requirement and an essential life skill. Our school provides a high quality broad, balanced computing curriculum, incorporating computer science, information technology and digital literacy, allowing all pupils to be successful and safe in the digital world while developing the knowledge and skills necessary for future learning and employment. Our computing curriculum develops pupils' computational thinking, computing knowledge and digital skills. We want our pupils to be confident, enthusiastic creators of digital content while understanding how computer systems work and comprehending the implications of their choices in the digital world.

We plan for all our pupils to meet the computing national curriculum programmes of study requirements. To ensure inclusivity, our curriculum is based on the latest pedagogical research. Themes are revisited regularly, enabling pupils to consolidate and build on prior learning and commit to long-term memory of what they have been taught.

Lessons are planned and well-sequenced to develop key skills and knowledge. There is clear progression across each key stage, with concepts and skills increasing in complexity as pupils mature. Activities are scaffolded, and extra resources are provided where appropriate, while exploratory tasks afford opportunities for greater challenges. Themes are revisited regularly, enabling pupils to consolidate and build on prior learning. Where relevant, cross-curricular links to other subjects and contexts are made.

With the design of our curriculum, we aim for our pupils to:

- be digitally literate: enthusiastic, confident, creative, collaborative and safe technology users. Capable of using new or familiar technologies to search, analyse and solve problems.
- be informed and thoughtful digital citizens, capable of understanding how the digital world works and able to critically evaluate the content and communicate ideas using a range of information and communication technologies.
- understand the fundamental principles and concepts of computer science and apply them to solve problems.
- analyse problems in computational terms and have repeated practical experience designing and writing computer programs to solve such problems.
- are successful in computing and enjoy the challenge this subject offers.
- Meet the aims of the national curriculum programs of study for computing.

Curriculum implementation

We teach computing as a discrete weekly lesson in each primary class and through different subject areas across the curriculum. Computing lessons are timetabled weekly for the first half term of each term, years 1 to 6. Reception classes have computing experiences, both through

'unplugged activities and using digital devices, that prepare them for key stage 1. The activities are carried out indoors, outdoors and through role play in child-initiated and teacher-directed time.

Teaching resources for each lesson are organised into weekly folders according to year groups. Resources include medium-term plans, weekly lesson plans, weekly teaching presentations, digital resources, non-digital resources and screen recordings to support delivery.

By teaching our curriculum, we aim to develop pupils' knowledge, computation and digital skills, progressively building on pupils' previous understanding, encouraging creative application and developing good digital citizenship.

There is a scaffolded approach to teaching new concepts, with opportunities for guided practice before pupils move towards greater independence. Where relevant, activities are differentiated. Pupils' working at greater depth' are encouraged to solve problems, answer questions or create designs of greater complexity. Pupils working towards the end of year expectations complete scaffolded simplified tasks and are supported by an adult.

We encourage the development of subject-specific vocabulary throughout the curriculum and, where appropriate, use an 'unplugged' approach to teaching specific concepts. The aim is to ensure pupils' have a deep understanding of concepts before applying them to digital devices.

We recognise that design is an important component of the computing curriculum, and where appropriate, pupils use wipe boards or paper templates to plan their work. Depending on the task, pupils are organised in ability pairings and encouraged to work collaboratively, supporting and challenging each other.

We teach computer science through unplugged activities, onscreen and using physical devices. We teach pupils to apply increasingly complex programming constructs to solve programming challenges. Pupils work independently and collaboratively to design algorithms, write, debug and improve computer programmes.

We use a wide range of digital applications to teach pupils to create, design, edit, publish, and critically evaluate digital content. We encourage pupils to develop a variety of strategies for solving problems and evaluating online content. We ask them to reflect on their online behaviour.

We recognise that online safety is an essential part of computing. It is taught in computing and PHSE and across the whole school curriculum. When online safety is taught in the computing curriculum, it is highlighted in individual lesson plans and cross-referenced to the [Education for a Connected World framework \(2020\)](#). There is an online safety focus at the beginning of every term. The school has a Keeping Safe studies curriculum, exploring issues around online safety with pupils and parents.

In addition to delivering the computing curriculum within the school, we plan for every class to have an intensive two days of specialist computing teaching delivered either on-site or at Camden CLC. These specialist-led workshops allow all pupils to experience a wide range of digital resources (tablets, VR sets, robotics sets) that they otherwise may not have access to. These visits are detailed on the Whole School Curriculum Map. Teachers record evidence of visits and visitors as a photo page (with an explanation). According to school policy, the class teacher is responsible for book visits and visitors. Teachers are also responsible for booking transport and completing a preliminary visit for the risk assessment before the visit.

At our school, we see the Y1 to Y6 curriculum as a body of **subject-specific knowledge** defined by the National Curriculum and us, and so we take a **knowledge-led approach**. Skills are an outcome of the curriculum, not its purpose. When children are 'fluent' in knowledge, they can then apply that knowledge as part of skill acquisition.

We have a **clear focus on subjects** as units to deliver the curriculum. Our **Curriculum Map** and units of work in every subject contain the knowledge that we have identified as essential in our school.

Our **Units of Work, lesson plans and teaching resources** have been written by the NCCE team of experts based on up-to-date pedagogical research and adapted by an expert teacher for our school. These resources are reviewed and updated regularly. **Composite tasks** are broken down into **component tasks** to ensure **sequential, layered knowledge acquisition**. These Units of Work also support our particular '**instructional**' style of teaching and help with the speedy and effective induction of new staff. This is particularly important in an inner London environment where the cost of accommodation prevents most of our staff from being able to stay with us long term.

Implementation of our curriculum

The implementation of our curriculum is greatly supported by **carefully structured unit plans, leading pupils through component knowledge and skills to composite knowledge and skills** in all subjects.

Our pedagogical approach is based on **Rosenshine's Principles of Direct Instruction**. This approach's brilliant clarity and simplicity support teachers to engage with cognitive science and the wider world of educational research.

The Principles of Direct Instruction

1. Daily Review
2. Present new material using small steps
3. Ask questions
4. Provide models
5. Guide student practice
6. Check for student understanding
7. Obtain a high success rate
8. Provide scaffolds for difficult tasks
9. Independent practice
10. Weekly and monthly review

Resources

The school has invested in a series of resources to ensure pupils receive a high-quality computing education:

- Resources from the National Centre of Computing Education: [Teach computing curriculum](#) are used to teach computing.
- Cloud-based resources - Google Classroom and the LGfL curriculum resources
- The services of a Camden LA computing technician to resolve technical problems across the school and to ensure all equipment is maintained to meet the agreed safety standards.
- Annual visits by each class from Camden City Learning Centre computing experts, a specialist computing centre that affords pupils the opportunity to experience a wide range of new technologies and high-quality digital resources in a workshop setting (see Appendix 6 for a list of CLC workshops).

Assessment

Within each lesson plan, there are clearly identified assessments for learning opportunities identified for teachers. Teachers use these opportunities to give verbal feedback.

There are pupil self-assessment opportunities at the end of each lesson.

Teachers assess and track progress through observations and reviewing pupils' digital and non-digital work. Digital work is saved on the school network and in cloud resources (LGfL and Google Classrooms). Some work may be printed and filed within the subject from which the task was set.

Class teachers and the curriculum-lead use 'pupil voice' to assess computing.

In key stage 1, teachers use observation to assess their pupils. Using observations rather than tests or end-of-unit projects ensures that teachers focus on assessing pupils' computing ability rather than literacy skills.

In key stage 2, teachers can use carefully designed quizzes to assess pupils' knowledge or an assessment rubric to evaluate pupils' work.

At two points in the year (February and July), each pupil's attainment is recorded using the 'I can...' Computing assessment statements found at the end of this policy.

The scheme of work also offers opportunities for peer assessment. Pupils are routinely given opportunities to appropriately evaluate each other's pupils' work online.

Acceptable User Policies (AUP)

An Acceptable Use Policy has been written to keep pupils safe when using the Internet. At the beginning of the year, each class teacher reads and discusses the policy with their class to ensure pupils understand its significance. Pupils sign the 'e-safety rules' to acknowledge their understanding and acceptance of the rules.

Staff training

Staff receive regular support and training from a computing consultant keeping their knowledge, skills and understanding up to date and relevant for delivering the curriculum.

Parent involvement

Through parents' meetings, the school newsletter and the school website, parents are encouraged to support their children's learning by using cloud resources purchased by the school (LGfL and Google Classroom). Through the same means, parents are also kept updated on various issues related to online safety. In particular, how to apply parental controls and monitor their child's use of the Internet and digital tools.

The role of the subject coordinator

Subject leaders

- provide continuous professional development for staff.
- monitor the quality of provision in the computing curriculum, and report to senior leaders.
- monitor pupil outcomes in computing and report to senior leaders.

Monitoring and evaluation

The quality of provision in computing is monitored and evaluated according to the annual school monitoring and evaluation policy.

School Partnership Computing Curriculum Overview

KS1	Autumn 1	Spring 1	Summer 1	CLC visit
Year One Computing Units	Creating media: Digital writing	Computing systems and networks – Technology around us	Programming A – Moving a robot	Programming B – Programming animations
Taught in other curriculum subjects	Data and information - Grouping data - <i>This is taught in the maths curriculum.</i> Creating media - Digital painting - <i>This is taught in the art curriculum.</i>			
Year Two Computing Units	Computing systems and networks – IT around us	Programming A – Robot algorithms	Creating media – Digital music	Programming B – Programming quizzes
Taught in other curriculum subjects	Data and information: Pictograms - <i>This is taught in the maths curriculum.</i> Creating media – Digital photography-, <i>This is taught in the art curriculum.</i>			

LKS2	Autumn 1	Spring 1	Summer 1	CLC visit
Year Three Computing Units	Creating media: Desktop publishing	Computing systems and networks – Connecting computers	Programming A: Sequencing in music	Creating media - Animation
Year Four Computing Units	Creating media: Audio editing	Programming A: Repetition in shapes - Logo	Computing systems and networks – The Internet	Programming B: Repetition in games Data logging: iPad using Arduino Science Journal app

Taught in other curriculum subjects	Creating media -Photo editing- <i>This is taught in the art curriculum.</i>
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UKS2	Autumn 1	Spring 1	Summer 1	CLC visit
Year Five Computing Units	Creating media: Vector drawing -	Computing systems and networks – Sharing information.	Programming- Selection in quizzes	Programming A – Selection in physical computing
Taught in other curriculum subjects	Creating media – <i>This is taught in the art curriculum.</i>			
Year Six Computing Units	Creating media: Web page creation	Computing systems and networks – Communication	Programming- Variables in games	Creating media – 3D Modelling Programming B – Sensing (using BBC Microbit)

Progression across the Computing Curriculum

Updated

	Year Rec / One: Digital writing	Year Two: Digital music	Year Three: Desktop Publishing	Year Four: Audio production	Year Five: Introduction to vector graphics	Year Six: Web page creation
Creating media	<p>Pupils learn:</p> <ul style="list-style-type: none"> ● basic keyboarding skills. ● consider the impact of the choices they make. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● use a computer to create music for a purpose. ● review and refine their work. ● recognise that information on a computer can be saved and stored, retrieved, re-edited, resaved, shared, and viewed worldwide. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● use a template and consider how different templates suit different purposes. ● use placeholders to organise text and manipulate images. ● recognise how choices are used for particular purposes. ● consider the benefits of using a DTP application. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● edit audio using an audio editor. ● consider the result of their editing choices. ● save and export an audio file. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● create graphical objects on a computer screen using a vector application by selecting, duplicating, modifying, grouping, and deleting objects. ● recognise that objects are layered and can be scaled without impact on quality. ● evaluate their choices. 	<p>Pupils learn to</p> <ul style="list-style-type: none"> ● recognise components of a web page layout and add text, images, navigation, hyperlinks, and embedded content on a template to create their own web page. ● consider the ownership and use of images (copyright). ● recognise the implications of linking to content owned by others.

Education for a connected world links	<p>Privacy and security</p> <ul style="list-style-type: none"> ● I can give reasons why I should only share information with people I choose to and can trust. (Y1) 	<p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I know that work I create belongs to me. 	<p>Managing online information</p> <ul style="list-style-type: none"> ● I can use key phrases in search engines. ● I can use search technologies effectively. <p>Copyright and ownership</p> <ul style="list-style-type: none"> ● When searching on the Internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. ● I can demonstrate the use of search tools to find and access online content which can be reused by others 	<p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I can explain why copying someone else's work from the Internet without permission can cause problems (Y3) ● I can give examples of what those problems might be (Y3) ● When searching on the Internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it (Y4) ● I can give some simple examples (Y4) 		<p>Online relationships</p> <ul style="list-style-type: none"> ● I can use the Internet with adult support to communicate with people I know. (EY-7) ● Managing information online ● I can navigate online content, websites, or social media feeds using more sophisticated tools to get to the information I want (e.g., menus, sitemaps, breadcrumb trails, site search functions). (11-14) <p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I can explain why copying someone else's work from the Internet without permission can cause problems. ● I can give examples of what those problems might be. ● When searching on the Internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. ● I can give some simple examples. ● I can assess and justify when it is acceptable to use the work of others. ● I can give examples of content that is permitted to be reused. ● I can demonstrate the use of search tools to find and access online content which can be reused by others. ● I can demonstrate how to reference and acknowledge sources I have used from the Internet. ● I can explain the principles of fair use and apply this to case studies. (11-14)
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	Year Rec / One: Technology around us	Year Two: IT around us	Year Three: Connecting computers	Year Four: The Internet	Year Five: Systems and searching	Year Six: Communication and collaboration
Systems and networks	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● identify technology and describe how it helps us. ● identify the main parts of a computer. ● use a mouse or drag pad to open a program, then create and edit an image. ● use a keyboard to add text to an image. ● recognise the need to keep safe when using computers and identify rules in school which help us to stay safe when using computers. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● recognise the uses and features of information technology. ● identify IT devices and explain how they benefit us, both in school and beyond. ● explain how to use information technology safely. ● recognise that choices are made when using information technology. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● explain how digital devices accept inputs, produce outputs and follow a process. ● identify the similarities and differences between using digital devices and non-digital tools. ● explain how a computer network can be used to share information. ● explore how digital devices can be connected. ● explain the benefits of a computer network. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● recognise the Internet is a network of networks and that it needs protection. ● understand the World Wide Web is part of the Internet and contains pages, and those pages can be made up of different types of media. ● recognise that people create different kinds of content on the World Wide Web, and there are rules to protect that content. ● Understand that not all content on the World Wide Web is true, and therefore it's important to think carefully before sharing or resharing content. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● recognise the role of computer systems in their lives. ● understand how information is transferred over the Internet. ● explain how sharing information online lets people in different places work together. ● contribute to a shared project online. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● identify how to use a search engine and compare results from different search engines. ● describe how search engines select and rank results. ● recognise why the order of search results is important and to whom. ● evaluate different methods of online communication.

Education for a connected world links	<p>Health, well-being and lifestyle</p> <ul style="list-style-type: none"> ● I can identify rules that help keep us safe and healthy in and beyond the home when using technology ● I can give some simple examples <p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I know that the work I create belongs to me ● I can name my work so that others know it belongs to me 	<p>Health, well-being, and lifestyle</p> <ul style="list-style-type: none"> ● I can identify rules that help keep us safe and healthy in and beyond the home when using technology. ● I can give some simple examples 		<p>Managing online information</p> <ul style="list-style-type: none"> ● I can analyse information to make a judgement about probable accuracy, and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others. ● I can explain what is meant by fake news, e.g., why some people will create stories or alter photographs and put them online to pretend something is true when it isn't. ● I can describe ways of identifying when online content has been commercially sponsored or boosted (e.g. by commercial companies or by vloggers, content creators, or influencers). ● I can describe how fake news may affect someone's emotions and behaviour and explain why this may be harmful. 	<p>Self-image and identity</p> <ul style="list-style-type: none"> ● I am aware that a person's online activity, history or profile (their 'digital personality') will affect the type of information returned to them in a search or on a social media feed and how this may be intended to influence their beliefs, actions and choices. (Y7) <p>Managing online information</p> <ul style="list-style-type: none"> ● I can explain how search engine rankings are returned and can explain how they can be influenced (e.g. commerce, sponsored results)(Y8) 	<p>Online reputation</p> <ul style="list-style-type: none"> ● I can describe and assess the benefits and the potential risks of sharing information online. <p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I can assess and justify when it is acceptable to use the work of others. ● I can give examples of content that is permitted to be reused.
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	Year Rec / One: Programming A – Moving a robot	Year Two: Programming A – Robot algorithms	Year Three: Programming A: Sequencing in music	Year Four: Programming A: Repetition in shapes	Year Five: Programming- Selection in quizzes	Year Six: Programming A – Variables in games
Programming	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● predict the outcome of a command on a device. ● give commands to a partner. ● input a sequence of simple commands into a floor robot. ● plan and program a simple route for a floor robot. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● describe a series of instructions as a sequence and explain what happens if the order of instructions is changed. ● use logical reasoning to predict the outcome of a program (series of commands). ● design an algorithm. ● create, test and debug a program to control a floor robot to achieve a specific goal. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● use scratch blocks to control a sprite graphic onscreen. ● create a program following a design and explain how the program starts. ● recognise that a sequence of commands has an order. ● create a project from a task description. 	<p>Pupils learn to</p> <ul style="list-style-type: none"> ● create a program in a text-based language. ● use a count-controlled loop to produce a given outcome. ● use a procedure in a program. ● create a program that uses. count-controlled loops to produce a given outcome. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● explain how selection is used in computer programs. ● create a program with different outcomes using selection. ● explain how selection directs the flow of a program. ● design and create a program which uses selection. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● understand what a variable is (something that is changeable). ● explain why a variable is used in a program. ● improve a game by using variables. ● design and program a game which includes variables. ● evaluate their completed project.

	Year 1: Programming B - Introduction to animation	Year 2: Programming B- An Introduction to quizzes	Year 3: Creating media - Stop-frame animation	Year 4: Programming B: Repetition in games	Y 5: Programming A - Selection in physical computing	Y6 Creating media – 3D Modelling
Taught by Camden CLC	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● choose a command for a given purpose on a screen. ● sequence a series of commands on screen. ● identify the effect of changing a value within a programming block. ● explain that each onscreen sprite has its own instructions. ● design parts of a project ● design an algorithm and use it to create a program. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● explain that a sequence of commands has a start and an outcome. ● create a program using a given design. ● change a given design. ● create a program using their own design. ● debug and improve their design. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● explain that animation is a sequence of drawings or photographs. ● plan an animation. ● identify the need to work consistently and carefully, (using onion skinning) when creating an animation. ● review and improve an animation, adding other media and evaluating the impact. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● identify count-controlled loops. ● when to use a count-controlled and when to use an infinite loop ● modify an infinite loop in a given program. ● design and create a program that includes repetition. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● control a simple circuit, a microcontroller connected to a computer, ● write a program that includes count-controlled loops. ● explain that a loop can stop when a condition is met. ● explain that a loop can repeatedly check whether a condition has been met. ● design and create a physical computing project that includes selection. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● recognise that you can work in three dimensions on a computer. ● identify that digital 3D objects can be modified. ● recognise that objects can be combined in a 3D model. ● create a 3D model for a given purpose. ● plan and create their own 3D model.

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Taught by Camden CLC</p>				<p>Data logging</p> <ul style="list-style-type: none"> ● use a digital device to collect data automatically. ● explain that a data logger collects 'data points' from sensors over time. ● use data from sensors to answer questions 		<p>Programming B</p> <ul style="list-style-type: none"> ● use a variable in an if, then, else statement to select the flow of a program. ● use a conditional statement to compare a variable to a value. ● design and develop a program to use inputs and outputs on a controllable device.
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Education for a connected world links			<p>Managing online information</p> <ul style="list-style-type: none"> • I can use key phrases in search engines. • I can use search technologies effectively. <p>Copyright and ownership</p> <ul style="list-style-type: none"> • I can explain why copying someone else's work from the Internet without permission can cause problems. • I can give examples of what those problems might be. • When searching on the Internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. • I can give some simple examples. • I can give examples of content that is permitted to be reused. • I can demonstrate the use of search tools to find and access online content which can be reused by others. 			<p><i>3D Modelling</i></p> <p>Privacy and Security</p> <ul style="list-style-type: none"> • I can describe strategies for keeping my personal information private, depending on context (Y4)
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National curriculum coverage KS1 computing curriculum	Digital writing	Technology around us	Moving a robot	Introduction to animation	IT around us	Robot algorithms	Making music	An introduction to quizzes
Understand what algorithms are; how they are implemented as programs on digital devices; and those 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.	✓	✓			✓			

National curriculum coverage Year 3 and 4 computing curriculum.	Desktop publishing	Connecting computers	Sequencing in music	Stop-frame animation	Audio editing	The Internet	Repetition in shapes	Data logging	Repetition in games
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 that 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.					✓	✓			

National curriculum coverage Year 5 and 6 computing curriculum.	Sharing information	Selection in physical computing	Vector drawing	Selection in quizzes	Communication	Web page creation	Variables in games	3D Modelling	Sensing movement
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 that 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.	✓					✓	✓	✓	

Source: [Teach computing curriculum](#)
[Education for a Connected World](#)

**Computing Assessment statements
Year One**

Name: _____

Expected standard Year One

	Statements of assessment	Feb	Jul
Creating Media Digital writing	I can recognise keys on a keyboard: letter, number, and space keys		
	I can use backspace to remove text		
	I can type capital letters		
	I can select a word by double-clicking		
	I can use 'undo' to remove changes		
Computing Systems & Networks	I can name the main parts of a computer		
	I can switch on and log into a computer		
	I can type my name on a computer		
	I can open and save my work to a file		
Programming A Moving a	I can run a command on a device		
	I can give directions		
	I can choose the order of commands in a sequence		
	I can start a sequence from the same place		
Programming B	I can find the commands to move a sprite		
	I can use a Start block in a program		
	I can join a series of commands together		
	I can create an algorithm for each sprite		

February assessment point On track to _____

July assessment point _____

**Computing Assessment statements
Year Two**

Name: _____

Expected standard Year Two

	Statements of assessment	Feb	Jul
Computing systems and networks: IT around us	I can identify that a computer is a part of information technology		
	I can open a file		
	I can move and resize images		
	I can explain how information technology helps people		
	I can recognise how to use information technology responsibly		
Programming A Robot algorithms	I can use an algorithm to program a sequence on a floor robot		
	I can identify different routes around my mat		
	I can use my algorithm to create a program		
	I can test and debug each part of the program		
Creating media Digital music	I can use a computer to experiment with pitch and duration		
	I can use a computer to create a musical pattern using three notes		
	I can refine my musical pattern on a computer		
	I can explain my choices		
Programming B Programming quizzes	I can explain that a sequence of commands has a start		
	I can predict the outcome of a sequence of commands		
	I can build sequences of blocks to match my design		
	I can debug my program		

February assessment point On track to _____

July assessment point _____

**Computing Assessment statements
Year Three**

Name: _____

Expected standard Year Three

	Statements of assessment	Feb	Jul
Creating media Desktop publishing	I can explain the difference between text and images		
	I can change font style, size, and colour for a given purpose		
	I can paste text and images to create a publication		
	I can make changes to content after I've added it		
Computing systems and networks Connecting computers	I can explain that digital devices accept inputs and outputs		
	I can recognise different connections on a computer network		
	I can explain how messages are passed through multiple connections		
	I can identify how devices in a network are connected with one another		
Programming A Sequencing sounds	I can recognise that commands in Scratch are represented as blocks		
	I can create a sequence of connected commands		
	I can build a sequence of commands		
	I can implement my algorithm as code		
Creating media SF animation	I can explain that animation is a sequence of drawings or photographs		
	I can plan an animation		
	I can use onion skinning to help me make small changes between frames		
	I can create an effective stop-frame animation		

February assessment point On track to _____

July assessment point _____

**Computing Assessment statements
Year Four**

Name: _____

Expected standard Year Four

	Statements of assessment	Feb	Jul
Creating media Audio production	I can use a computer to record audio		
	I can edit my recording by re-recording my voice and trimming my recording		
	I can review and improve the quality of my recordings		
	I can explain the difference between saving a project and exporting an audio file		
Computing systems and networks The Internet	I can recognise that the World Wide Web is the part of the Internet that contains websites and web pages		
	I can explain that not everything on the World Wide Web is true		
	I can explain why some information I find online may not be honest, accurate, or legal		
	I can explain why I need to think carefully before I share or reshare content		
Programming Repetition in shapes	I can explain the effect of changing a value of a command		
	I can write an algorithm to produce a given outcome		
	I can design a program that includes count-controlled loops		
	I can develop my program by debugging it		
Repetition in games	I can choose when to use a count-controlled and when to use an infinite loop		
	I can modify an infinite loop		
	I can design and create a program that includes repetition		
	I can create a program that includes repetition		
Data logging	I can use a digital device to collect data automatically		
	I can explain that a data logger collects 'data points' from sensors over time.		
	I can use data from sensors to answer questions		

February assessment point **On track to** _____

July assessment point _____

**Computing Assessment statements
Year Five**

Name: _____

Expected standard Year Five

	Statements of assessment	Feb	Jul
Creating media Vector drawing	I can create a vector drawing by combining shapes		
	I can move, resize, and rotate objects I have duplicated		
	I can use the zoom tool to help me add detail to my drawings		
	I can reuse a group of objects to further develop my vector drawing		
Computing systems and networks Systems and searching	I can explain that computers can be connected together to form systems		
	I can identify the human elements of a computer system		
	I can make use of a web search to find specific information		
	I can describe how search engines select results		
	I can recognise some of the limitations of search engines		
Programming- Selection in quizzes	I can use selection in an infinite loop to check a condition		
	I can identify the condition and outcomes in an 'if..then... else...' statement		
	I can create a program that uses selection to produce different outcomes		
	I can identify what setup code I need in my project		
Programming A – Selection in physical computing	I can create a simple circuit and connect it to a microcontroller		
	I can program a microcontroller to respond to an input		
	I can use selection (an 'if...then...' statement) to direct the flow of a program		
	I can create a program that controls a physical computing project		

February assessment point **On track to** _____

July assessment point _____

Computing Assessment statements
Year Six

Name: _____

Expected standard Year Six

	Statements of assessment	Feb	Jul
Creating media Web page creation	I can recognise the common features of a web page		
	I can add content to my own web page		
	I can evaluate what my web page looks like on different devices and make edits		
	I can make multiple web pages and link them using hyperlinks		
Computing systems and networks Communication & collaboration	I can explain that internet devices have addresses		
	I can explain that all data transferred over the Internet is in packets		
	I can explain how sharing information online can help people to work together		
	I can decide when I should and should not share information online		
	I can explain that communication on the Internet may not be private		
Programming A Variables in games	I can explain that a variable has a name and a value		
	I can recognise that the value of a variable can be changed		
	I can choose a name that identifies the role of a variable		
	I can test and evaluate my project		
3D Modelling	I can add 3D shapes to a project		
	I can modify digital 3D objects.		
	I can combine a number of 3D objects to create a 3D model for a given purpose		
	I can construct a 3D model based on a design and can modify it to improve it		
Programming B Sensing	I can use a variable in an if, then, else statement to select the flow of a program		
	I can use a conditional statement to compare a variable to a value.		
	I can design and develop a program to use inputs and outputs on a controllable device.		

February assessment point **On track to** _____

July assessment point _____