



The Ribblesdale Federation of Schools

Curriculum Handbook C



Long Term Plan – Cycles of Units of Study

EYFS – Computing

Practitioners will;

- Provide opportunities to use technology to solve problems.
 - Provide opportunities for pupils to use technology to produce creative outcomes.
- Provide opportunities to take part in a variety of tasks with digital devices such as Bee Bots.
- Provide opportunities to use toys such as remote control cars, walkie talkies and interactive pets.
 - Provide opportunities to use digital cameras, voice recorders or microphones and iPads.

Year 1 Computing – Long Term Overview

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
2023- 2024 (A)	Computing systems and networks Improving Mouse Skills Yr 1 5 Lessons	Programming 1 Algorithms Unplugged (Yr 1)	Skills Show case Rocket to the moon Yr 1 (5 lessons)	Programming 2 Programming Bee Bots	Online Safety Online Safety Yr 1 (4 Lessons)	Data Handling Introduction to data (Yr 1)

Year 2 and 3 Computing – Long Term Overview Kapow

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Yr A	Computing systems and networks 1 What is a computer? (yr2)	Computing systems and networks 1 Networks (yr 3)	Data Handling International Space Station (Yr 2)	Programming Scratch Jr (Yr 2)	Creating media Stop Motion Using Tablets (Yr2)	Online Safety Online safety (Yr 2)
Yr B	Computing systems and networks 2 Word Processing (Yr 2)	Creating Media Video trailers Option 1: Using devices other than iPads , Option 2: Using iPads (Yr 3)	Computing systems and networks 3 Journey inside a computer (Yr 3)	Programming 1 Algorithms and debugging (Yr 2)	Data Handling Comparison cards databases Option 1: Google Option 2: Microsoft Office 365	Online Safety Online safety (Yr 3)

**Years 4, 5 and 6 Computing – Long Term Overview
Kapow**

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
2023- 2024 Cycle A	Computing systems and networks Collaborative Learning Option 1: Google Option 2: Microsoft Office 365 (Yr 4)	Programming 1 Programming music Option 1: Sonic Pi , Option 2: Scratch (Yr 5)	Computing systems and networks Search Engines (Yr 5)	Data handling Investigating Weather (Yr 4)	Skills showcase Inventing a Product (Yr 6)	Online Safety Online Safety (Yr 4)
2024- 2025 Cycle B	Online safety Y5 (Yr 5)	Data handling Mars Rover 1 (Yr 5)	Creating Media Website design Option 2: Microsoft Office 365 (Yr 4)	Programming 1 Further coding with Scratch (Yr 4)	Programming Intro to python (Yr 6)	Data Handling Big Data 1 (Yr 6)
2025 – 2026 Cycle C	Programming 2 Micro:Bit (yr 5)	Skills Showcase Mars Rover 2 (Yr 5)	Programming 2 Computational thinking (Yr 4)	Computer Networks and Systems Bletchley Park (Yr 6)	Creating media Stop motion animation Option 1: Stop motion studio Option 2: Using cameras (Yr 5)	Online safety Online safety Y6 (Yr 6)

Computing

Intent

All pupils have the right to have rich, deep learning experiences that balance all the aspects of computing. With technology playing such a significant role in society today, we believe 'Computational thinking' is a skill children must be taught if they are to be able to participate effectively and safely in this digital world. A high-quality computing education equips pupils to use creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. In Computing lessons, pupils are introduced to a wide range of technology, including laptops, iPads and interactive whiteboards, allowing them to continually practice and improve the skills they learn. This ensures they become digitally literate so that they are able to express themselves and develop their ideas through information and computer technology– at a level suitable for the future workplace and as active participants in a digital world.

We teach a curriculum that enables children to become effective users of technology who can:

- Understand and apply the essential principles and concepts of Computer Science, including logic, algorithms and data representation;
- Analyse problems in computational term, and have repeated practical experience of writing computer programs in order to solve such problems;
- Evaluate and apply information technology analytically to solve problems;
- Communicate ideas well by utilising appliances and devices throughout all areas of the curriculum.

Internet Safety

We take internet safety extremely seriously. We have an E- Safety Policy that provides guidance for teachers and children about how to use the internet safely. Every year group participates in lessons on e-safety and children understand how to stay safe when using technology

Pupils with SEND

To support pupils with SEND to access a full computing curriculum, we use a range of approaches which include, but are not limited to: pre-teaching subject-specific vocabulary, including vocabulary relating to the passing of time; use of visual aids and artefacts which can be explored practically; scaffolding resources, such as writing frames; additional thinking time; additional adult support; use of technology; multi-sensory activities and multimedia teaching; alternative means to record responses; task breakdown plans; use of vocabulary mats, and; targeted questioning

Implementation

Implementation:

To ensure high standards of teaching and learning in computing, we implement a curriculum that is progressive throughout the whole school. Our implementation of the computing curriculum is in line with 2014 Primary National Curriculum requirements for KS1 and KS2 and the Foundation Stage Curriculum in England. This provides a broad framework and outlines the knowledge and skills taught in each key stage.

We use and follow the Kapow scheme of work from Year 1-6, ensuring consistency and progression throughout the school. The scheme of work enables clear coverage of the computing curriculum whilst also providing support and CPD for less confident teachers to deliver lessons.

The lessons are broken down into weekly units, usually with two units taught per half term. Units are practical and engaging and allow computing lessons to be hands on. Units cover a broad range of computing components such as coding, spreadsheets, Internet and Email, Databases, Communication networks, touch typing, animation and online safety.

When teaching computing teachers can follow the children's interests to ensure their learning is engaging, broad and balanced. Teachers ensure that computing capability is also achieved through core and foundation subjects and where appropriate and necessary computing should be incorporated into work for all subjects where possible.

Computing teaching is practical and engaging and a variety of teaching approaches and activities are provided based on teacher judgement and pupil ability. Teachers and pupils are aware of the importance of health and safety and pupils are always supervised when using technology and accessing the internet.

We provide a variety of opportunities for computing learning inside and outside the classroom. Computing and safeguarding go hand in hand and we provide a huge focus on internet safety inside and outside of the classroom. Additional to all pupils studying an online safety unit through their computing lessons, every year we also take part in National Safer Internet Day in February. The Computing subject leader, alongside class teachers, will plan additional internet safety lessons and activities.

Impact

Our Computing curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes
- Children can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation;

- Children can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems;
- Children can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems;
- Children are responsible, competent, confident and creative users of information and communication technology.
- A celebration of learning for each term which demonstrates progression across the school;

Tracking of gains in each quiz;

- Pupil discussions about their learning;

National Curriculum

Key stage 1

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

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

use technology safely, respectfully and responsibly;

recognise acceptable/unacceptable behaviour;

identify a range of ways to report concerns about content and contact.

Year C – Programming 2 MicroBit (yr 5)

In Year 4 we...	In Year 5 and 6 we...
<p>Key skills</p> <p>Programming an animation. Iterating and developing their programming as they work. Confidently using loops in their programming. Using a more systematic approach to debugging code, justifying what is wrong and how it can be corrected. Writing code to create a desired effect. Using a range of programming commands</p> <p>Key knowledge</p> <p>To know that a Micro:bit is a programmable device. To know that Micro:bit uses a block coding language similar to Scratch. To understand and recognise coding structures including variables. To know what techniques to use to create a program for a specific purpose (including decomposition)</p>	<p>Key skills</p> <p>Decomposing a program without support. Predicting how software will work based on previous experience. Writing more complex algorithms for a purpose. Programming an animation. Iterating and developing their programming as they work. Confidently using loops in their programming. Using a more systematic approach to debugging code, justifying what is wrong and how it can be corrected. Writing code to create a desired effect. Using a range of programming commands. Using repetition within a program. Using logical thinking to explore software more independently, making predictions based on their previous experience. Identify ways to improve and edit programs, videos, images etc.</p> <p>Key knowledge</p> <p>To know that a Micro:bit is a programmable device. To know that Micro:bit uses a block coding language similar to Scratch. To understand and recognise coding structures including variables. To know what techniques to use to create a program for a specific purpose (including decomposition).</p>

Year C Skills Showcase Mars Rover 2 (Yr 5)

In Year 4 we...	In Year 5 and 6 we...
<p>Key skills Learning how the data for digital images can be compressed. Recognising that computers transfer data in binary and understanding simple binary addition. Understanding how bit patterns represent images as pixels. Using logical thinking to explore software more independently, making predictions based on their previous experience. Independently learning how to use 3D design software package TinkerCAD. Learn about different forms of communication that have developed with the use of technology</p> <p>Key knowledge To understand that bit patterns represent images as pixels. To understand that the data for digital images can be compressed</p>	<p>Key skills Learning the difference between ROM and RAM. Recognising how the size of RAM affects the processing of data. Understanding the fetch, decode, execute cycle. Learning how the data for digital images can be compressed. Recognising that computers transfer data in binary and understanding simple binary addition. Understanding how bit patterns represent images as pixels. Using logical thinking to explore software more independently, making predictions based on their previous experience. Independently learning how to use 3D design software package TinkerCAD. Learn about different forms of communication that have developed with the use of technology.</p> <p>Key knowledge To understand that bit patterns represent images as pixels. To understand that the data for digital images can be compressed. To know the difference between ROM and RAM. To understand various techniques that will improve the design of a 3D object (using CAD software).</p>

Year C Programming 2 Computational thinking (Yr 4)

In Year 4 we...	In Year 5 and 6 we...
<p>Key skills</p> <p>Using decomposition to solve a problem by finding out what code was used.</p> <p>Using decomposition to understand the purpose of a script of code.</p> <p>Identifying patterns through unplugged activities.</p> <p>Using past experiences to help solve new problems.</p> <p>Using abstraction to identify the important parts when completing both plugged and unplugged activities.</p> <p>Creating algorithms for a specific purpose.Using abstraction and pattern recognition to modify code.</p> <p>Key knowledge</p> <p>To know that combining computational thinking skills can help you to solve a problem.</p> <p>To understand that pattern recognition means identifying patterns to help them work out how the code works.</p>	<p>Key skills</p> <p>Using decomposition to solve a problem by finding out what code was used.</p> <p>Using decomposition to understand the purpose of a script of code.</p> <p>Identifying patterns through unplugged activities.</p> <p>Using past experiences to help solve new problems.</p> <p>Using abstraction to identify the important parts when completing both plugged and unplugged activities.</p> <p>Creating algorithms for a specific purpose.</p> <p>Using abstraction and pattern recognition to modify code.</p> <p>Key knowledge</p> <p>To know that combining computational thinking skills can help you to solve a problem.</p>

To understand that algorithms can be used for a number of purposes e.g. animation, games design etc.

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Year C - Computer Networks and Systems

Bletchley Park

(Yr 6)

In Year 4 we...

Key skills

Learning about the history of computers and how they have evolved over time.

Using past experiences to help solve new problems. Writing increasingly complex algorithms for a purpose

Changing a program to personalise it.

Use search and word processing skills to create a presentation.

Understanding how search engines work.

Understanding the importance of secure passwords and how to create them.

Using search engines safely and effectively

Key knowledge

.To understand the importance of having a secure password and what “brute force hacking” is.

To know that the first computers were created at Bletchley Park to crack the Enigma code to help the war effort in World War 2.

To know about some of the historical figures that contributed to technological advances in computing.

To understand what techniques are required to create a presentation using appropriate software.

In Year 5 and 6 we...

Key skills

Learning about the history of computers and how they have evolved over time.

Using past experiences to help solve new problems. Writing increasingly complex algorithms for a purpose. Debugging quickly and effectively to make a program more efficient. Remixing existing code to explore a problem.

Changing a program to personalise it. Evaluating code to understand its purpose.

Predicting code and adapting it to a chosen purpose.

Using search and word processing skills to create a presentation.

Understanding how search engines work.

Understanding the importance of secure passwords and how to create them.

Using search engines safely and effectively

Key knowledge

To understand the importance of having a secure password and what “brute force hacking” is.

To know that the first computers were created at Bletchley Park to crack the Enigma code to help the war effort in World War 2.

To know about some of the historical figures that contributed to technological advances in computing.

To understand what techniques are required to create a presentation using appropriate software.

Year C Creating media

Stop motion animation Option 1: Stop motion studio Option 2: Using cameras (Yr 5)

In Year 4 we...	In Year 5 and 6 we...
<p>Key skills Decomposing animations into a series of images. Decomposing a story to be able to plan a program to tell a story. Using video editing software to animate.</p> <p>Key knowledge To know that decomposition of an idea is important when creating stop-motion animations. To understand that stop motion animation is an animation filmed one frame at a time using models, and with tiny changes between each photograph. To know that editing is an important feature of making and improving a stop motion animation</p>	<p>Key skills Decomposing animations into a series of images. Decomposing a story to be able to plan a program to tell a story. Using video editing software to animate.</p> <p>Key knowledge To know that decomposition of an idea is important when creating stop-motion animations. To understand that stop motion animation is an animation filmed one frame at a time using models, and with tiny changes between each photograph. To know that editing is an important feature of making and improving a stop motion animation</p>

Year C - Online safety Y6 (Yr 6)

In Year 4 we...

Key skills

Learning about the positive and negative impacts of sharing online.
 Learning strategies to create a positive online reputation.
 Understanding the importance of secure passwords and how to make them.
 Learning strategies to capture evidence of online bullying to seek help.
 Recognising that updated software can help to prevent data corruption and hacking.

Key knowledge

A digital footprint means the information that exists on the internet as a result of a person's online activity.
 What steps are required to capture bullying content as evidence.
 It is important to manage personal passwords effectively.

In Year 5 and 6 we...

Key skills

Learning about the positive and negative impacts of sharing online.
 Learning strategies to create a positive online reputation.
 Understanding the importance of secure passwords and how to make them.
 Learning strategies to capture evidence of online bullying to seek help.
 Recognising that updated software can help to prevent data corruption and hacking.

Key knowledge

A digital footprint means the information that exists on the internet as a result of a person's online activity.
 What steps are required to capture bullying content as evidence.
 It is important to manage personal passwords effectively.
 What it means to have a positive online reputation.

What it means to have a positive online reputation.
Some common online scams

Some common online scams.

Agreed End Points

We have plotted end points for each year group to ensure that children keep on track for the end of Key Stage end points. In this way we can get children ready for the next stage of their education

Our end points ensure that our curriculum is purposefully structured and logically sequenced, and new knowledge builds on previous knowledge – links can be made across different areas of study.

Computing	Year One	Year Two
Texta and Multimedia	<ul style="list-style-type: none">• Work with others and with support to contribute to a digital class resource which includes text, graphic and sound.	<ul style="list-style-type: none">• Generate their own work, (with help where appropriate with multimedia) combining text, graphics and sound. Save and retrieve and edit their work.
Digital Images	<ul style="list-style-type: none">• Use a range of simple tools in a paint package / image manipulation software to create / modify a picture.	<ul style="list-style-type: none">• Use a range of tools in a paint package / image manipulation software to create / modify a picture to communicate an idea.• Create a simple animation to tell a story.
Sound and Music	<ul style="list-style-type: none">• Chose suitable sounds from a bank to express their ideas.• Record short speech.	<ul style="list-style-type: none">• Compose music from icons.• Produce a simple presentation incorporating sounds the children have captured, or created.

	•	
Electronic Communication	<ul style="list-style-type: none"> Contribute ideas to a class email to another class / school etc. 	<ul style="list-style-type: none"> Work collaboratively by email to share and request information of another class or story character.
Research and ESafety	<ul style="list-style-type: none"> As a class exercise children explore information from a variety of sources (electronic, paper based, observations of the world around them, etc.). <p>PSHE Links</p> <p>H12 – To know rules for keeping physically and emotionally safe including responsible ICT use and online safety.</p> <p>H16 – To know what is meant by ‘privacy’ their right to keep things private, the importance of respecting others’ privacy.</p> <p>R13 – To recognise different types of teasing and bullying (including online)</p>	<ul style="list-style-type: none"> Children use a search engine to find specific relevant information to use in a presentation for a topic. <p>PSHE Links</p> <p>H12 – To know rules for keeping physically and emotionally safe including responsible ICT use and online safety.</p> <p>H16 – To know what is meant by ‘privacy’ their right to keep things private, the importance of respecting others’ privacy.</p> <p>R13 – To recognise different types of teasing and bullying (including online)</p>
Control and Algorithms	<ul style="list-style-type: none"> Control simple everyday devices to make them produce different outcomes. 	<ul style="list-style-type: none"> Control a device, on and off screen, making predictions about the effect their programming will have.

Computing	Year One	Year Two
Handling Information	As a class or individually with support, children use a simple pictogram or painting program to develop simple graphical awareness / one to one correspondence.	<ul style="list-style-type: none"> Use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph and answer questions.

		<ul style="list-style-type: none"> • Enter information into a simple branching database, database or word processor and use it to answer questions. • They save, retrieve and edit their work.
Modelling	Make simple choices to control a simple simulation program.	<ul style="list-style-type: none"> • Children are able to play an adventure game and use a simple simulation, making choices and observing the results. • Their conversation shows they understand that computers are good at replicating real life events and allowing them to explore contexts that are otherwise not possible.
Data Logging	•	•
Individual Technologies	Show an awareness of the range of devices and tools they encounter in everyday life •	<ul style="list-style-type: none"> • Show an awareness of a range of inputs to a computer (IWB, mouse touch screen, microphone, keyboard, etc.)
Understanding Technologies (network)	how an awareness that what they create on a computer or tablet device can be shown to others via another device (e.g. printer, projector, Apple TV)	<ul style="list-style-type: none"> • Begin to show an awareness that computers can be linked to share resources •
Understanding Technologies (the internet)		Use websites and demonstrate an awareness of how to manage their journey around them (e.g. using the back/forward button, hyperlinks)

Computing	Year Three	Year Four
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Texts and Multimedia	<ul style="list-style-type: none"> Record and present information integrating a range of appropriate media combining text and graphics in printable form and sound and video for on-screen presentations which include hyperlinks. Begin to show an awareness of the intended audience and seek feed-back. 	<ul style="list-style-type: none"> Use advanced tools in word processing / DTP software such as tabs, appropriate text formatting, line spacing etc. appropriately to create quality presentations appropriate for a known audience.
Digital Images	<ul style="list-style-type: none"> Manipulate digital images using a range of tools in appropriate software to convey a specific mood or idea. 	<ul style="list-style-type: none"> Make a short film / animation from images (still and / or moving) that they have sourced, captured or created.
Sound and Music	<ul style="list-style-type: none"> Create a simple podcast, selecting and importing already existing music and sound effects as well as recording their own. 	<ul style="list-style-type: none"> Create multiple track compositions that contain a variety of sounds.
Electronic Communication	<ul style="list-style-type: none"> Begin to understand the need to abide by school e-safety rules. 	<ul style="list-style-type: none"> Share ICT work they have done electronically by email, VLE, or uploading to authorised sites. Where possible seek and respond to feedback.
Research and ESafety	<ul style="list-style-type: none"> Using another curriculum area as a starting point, children ask their own questions then use ICT sources to find answers, making use of search engines, an index, menu, hyperlinks as appropriate. Children use the information or resources they have found. <p>PSHE Links</p> <p>H22 – Develop strategies for keeping safe online; the importance of protecting personal information.</p> <p>H25 – To know how to manage requests for images of themselves or others; what is and is not appropriate to ask for or share ; who to talk to if they feel uncomfortable.</p>	<ul style="list-style-type: none"> Make use of copy and paste, beginning to understand the purpose of copyright regulations and the need to repurpose information for a particular audience. They show an understanding that not all information on the internet is accurate. <p>PSHE Links</p> <p>H22 – Develop strategies for keeping safe online; the importance of protecting personal information.</p> <p>H25 – To know how to manage requests for images of themselves or others; what is and is not appropriate to ask for or share ; who to talk to if they feel uncomfortable.</p>
Control and Algorithms	<ul style="list-style-type: none"> Children are able to type a short sequence of instructions and to plan ahead when programming devices on and off screen. 	<ul style="list-style-type: none"> Use control software to control devices (using output commands) or to simulate this on screen. Predict, test and refine their programming.

Computing	Year Three	Year Four
Handling Information	<ul style="list-style-type: none"> Children use a simple database (the structure of which has been set up for them) to enter and save and save information on a given subject. They follow straight forward lines of enquiry to search their data for their own purposes. They talk about their experiences of using ICT to process data compared with other methods. 	<ul style="list-style-type: none"> Children work as a class or group to create a data collection sheet and use it to setup a straight forward database to answer questions. <ul style="list-style-type: none"> Enter information and interrogate it (by searching, sorting, graphing etc.). Begin to reflect on how useful the collected data and their interrogation was and whether or not their questions were answered.
Modelling	<ul style="list-style-type: none"> Use models and simulations to find things out and solve problems. Recognise that simulations are useful in widening experience beyond the classroom. Make simple use of a spreadsheet to store data and produce graphs. 	<ul style="list-style-type: none"> Set up and use a spreadsheet model to explore patterns and relationships. Make predictions. Know how to enter simple formulae to assist this process.
Data Logging	<ul style="list-style-type: none"> Begin to use a data logger to sense physical data (sound, light, temperature). 	<ul style="list-style-type: none"> Use a data logger confidently, connected to the computer or remotely, to capture continuous or intermittent data readings. Interpret the results and use these in their investigations.
Individual Technologies	<ul style="list-style-type: none"> Begin to show discernment in their use of computing devices and tools for a particular purpose and explain why their choice was made. <p>PSHE Links – H24 To develop the responsible use of mobile phones; safekeeping and safer use habits (time limits, use of passcodes, turning off at night)</p>	<ul style="list-style-type: none"> Make choices about the devices and tools they use for specific purposes and explain them in relation to the context. <p>PSHE Links – H24 To develop the responsible use of mobile phones; safekeeping and safer use habits (time limits, use of passcodes, turning off at night)</p>

Understanding Technologies (network)	<ul style="list-style-type: none"> • Show an awareness of where passwords are critical in everyday use (e.g. parents accessing bank details) 	<ul style="list-style-type: none"> • Show an understanding of the school network and how it links computers to resources in school and beyond.
Understanding Technologies (the internet)	<ul style="list-style-type: none"> • Show an awareness that not all the resources/tools they use are resident on the device they are using. 	<ul style="list-style-type: none"> • Perform a search using different search engines and check the results against each other, explaining why they might be different. •

Computing	Year Five & Year Six Consolidation of previous skills and knowledge
Texts and Multimedia	Multimedia work shows restrained use of effects that help to convey meaning rather than impress.
Digital Images	Use images that they have sourced / captured / manipulated as part of a bigger project (e.g. presentation or document).
Sound and Music	Create and share more sophisticated podcasts and consider the effect that their podcasts will have on the audience.
Electronic Communication	Abide by school rules for e-safety – share this information with younger pupils. Follow these rules at home, considering safe and appropriate use of social media.

Research and ESafety	<ul style="list-style-type: none"> Independently and with due regard for safety, search the internet using a variety of techniques to find a range of information and resources on a specific topic. <ul style="list-style-type: none"> Use appropriate methods to validate information and check for bias and accuracy. Repurpose and make appropriate use of selected resources for a given audiences, acknowledging material used where appropriate. <p>PSHE Links</p> <p>H22 – Develop strategies for keeping safe online; the importance of protecting personal information.</p> <p>H25 – To know how to manage requests for images of themselves or others; what is and is not appropriate to ask for or share ; who to talk to if they feel uncomfortable.</p>
Control and Algorithms	<ul style="list-style-type: none"> Independently create sequences of commands to control devices in response to sensing (i.e. use inputs as well as outputs). Design, build, test, evaluate and modify the system; ensuring that it is fit for purpose.

Computing	Year Five & Year Six Consolidation of previous skills and knowledge
Handling Information	<ul style="list-style-type: none"> Independently solve a problem by planning and carrying out data collection, by organising and analysing data involving complex searches using a database, and by drawing conclusions and presenting findings. <ul style="list-style-type: none"> The need for accuracy is demonstrated and strategies for spotting implausible data are evident. To be able to talk about issues relating to data protection and the need for data security in the world at large (e.g. health, police databases).
Modelling	<ul style="list-style-type: none"> Set up and use their own spreadsheet, which contains formulae to investigate mathematical models. Ask "what if ..." questions and change variable in their model.

	<ul style="list-style-type: none"> Understand the need for accuracy when creating formulae and check regularly for mistakes, by questioning results. Relate their use of spreadsheets to model situations to the wider world.
Data Logging	<ul style="list-style-type: none"> To identify their own opportunities for data logging and carry out their own experiments. They check and question results and are able to spot trends in data and identify when problems may have occurred.
Individual Technologies	<ul style="list-style-type: none"> Evaluate the tools available to them including any that are unfamiliar or new and use them to solve problems. Demonstrate an awareness of the appropriateness of outcomes depending on choices regarding tools and devices. <p>PSHE Links – H24 To develop the responsible use of mobile phones; safekeeping and safer use habits (time limits, use of passcodes, turning off at night)</p>
Understanding Technologies (network)	<ul style="list-style-type: none"> Show an understanding of how filtering and monitoring tools affect their use of the school network and Internet and compare this with their experience of access outside school.
Understanding Technologies (the internet)	<ul style="list-style-type: none"> Use collaborative tools and e-mail showing a sensitivity for this type of remote collaboration and communication