



The Ribblesdale Federation of Schools

Curriculum Handbook

(Updated for 2026 -2027 Curriculum)



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 Beebots. • 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.	

KS1 Computing – Long Term Overview						
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
A 2026-27	Online safety Y2	Computing systems and networks: Word Processing	Creating media: digital imagery	Creating media: Stop motion	Data Handling Introduction to data	Computing systems and networks: What is a computer?

KS2 Computing – Long Term Overview

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Yr A 2026-27	Online safety Yr 4	Data Handling: Comparison cards	Data Handling: Investigating weather	Data Handling: Mars Rover	Data Handling: Big data 1	Data Handling: Big data 2

Computing

Intent

Our computing curriculum has been specifically tailored to meet the unique context of our schools. It is designed to be broad and balanced, providing all pupils with the opportunity to master their learning, deepen their knowledge and help them to understand the importance and real-world applications of computing. Technology is changing the lives of everyone. Through teaching computing, we equip our children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. We believe that computing is a fundamental part of our children's education to ensure they are prepared for the digital world in which we live.

Through our computing curriculum, we aim to give our pupils the life-skills that will enable them to embrace and utilise new technology in a socially responsible and safe way in order to flourish. We aim to equip our pupils with the skills to thrive in the 21st-century workplace, fostering independence and confidence as they become autonomous users of technology who enjoy exploring and creating through computing. We want the use of technology to support learning across the entire curriculum and to ensure that our computing curriculum is accessible to every child.

Not only do we want them to be digitally literate and competent end-users of technology but through our computing lessons we want our pupils to develop creativity, resilience, problem-solving and critical thinking skills.

Implementation

We have chosen to implement the Kapow computing curriculum across the Federation as it ensures a broad and balanced coverage of the National Curriculum requirements. The Kapow Primary scheme is organised into five key areas, creating a cyclical route through which pupils can develop their computing knowledge and skills by revisiting and building on previous learning. We have mapped out the key areas in our long term plan in order to meet the needs of our mixed aged classes. The key areas are:

- Computer systems and networks
- Programming
- Creating media
- Data handling
- Online safety

Where appropriate, units within the Kapow scheme have been created to link to other subjects such as science, art and music to enable the development of further transferable skills and genuine cross-curricular learning.

The curriculum is broken down into units of learning with usually with one unit taught per half term. Lessons incorporate a range of teaching strategies from independent tasks, paired and group work as well as unplugged and digital activities. This variety means that lessons are engaging and appeal to those with a variety of learning styles. Differentiated guidance is available for every lesson to ensure that they can be accessed by all learners.

Computing is timetabled weekly throughout the Federation and staff have access to laptops, iPads, microbits and Beebots to implement the curriculum. As our younger learners often take longer to master the different skills taught within the curriculum, they have the option of implementing the condensed Kapow computing curriculum. We are monitoring how this works with a view to implementing it across all the year groups. This condensed curriculum identifies the lessons that must be taught in order to meet the requirements of the National Curriculum. Having fewer lessons to teach enables teachers to break lessons down into smaller parts and take longer over each lesson or to teach them in smaller groups. Teachers use their professional judgement when making this decision.

Strong subject knowledge is essential for staff to be able to deliver a highly effective and robust computing curriculum. Each Kapow unit of learning includes teacher videos to develop subject knowledge and support ongoing CPD. The subject leader can also be approached for help and advice and we have contacts with our local secondary school, who are also happy to help us with CPD. We also have technical support from NYES Digital who attend our sites on a three week rotation.

Teachers ensure that computing capability is also achieved through core and foundation subjects and where appropriate, computing should be incorporated into all subjects. Teachers and pupils are aware of the importance of health and safety and pupils are always supervised when using technology and accessing the internet.

Internet Safety

We take internet safety extremely seriously and have an E-safety policy that provides guidance for teachers and children about how to use the internet safely. Online safety units of work are planned into the curriculum for all the year groups from Year 1 -6 and frequent reminders are given throughout computing lessons so that the children know how to stay safe when using technology. Our PSHE curriculum also supports the delivery of online safety. All the schools across the Federation take part in Safer Internet Day each year and our younger learners participate in this too. We also take advantage of opportunities offered to us by outside agencies who run assemblies and workshops about online safety.

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, use of visual aids, scaffolding resources such as writing frames, additional thinking time, additional adult support, task breakdown plans and targeted questioning.

EYFS

This subject leader handbook is for the National Curriculum. There is a separate EYFS handbook which shows the EYFS long-term curriculum. The EYFS curriculum is holistic and therefore a number of areas of learning will link to this subject and support children to be immersed in Computing.

Impact

Our computing curriculum is high quality, well thought out and planned to ensure progression. If children are keeping up with the curriculum, they are deemed to be making at least good progress and they will be developing a range of skills that are transferable to other curriculum areas. As pupils progress through KS1 and KS2 children will:

- Become increasingly confident in the application of their digital skills,
- Be increasingly efficient and effective communicators, collaborators and analysts,
- Show imagination and creativity in their use of ICT in different aspects of their learning and life beyond school.
- Understand E-safety and the risks involved when using the internet.

The impact of the computing curriculum offered within the Ribblesdale Federation is assessed continuously. Each Kapow lesson includes guidance to support teachers in assessing pupils against the learning objectives. By making these judgements, we can ensure that the necessary support is provided for all children to have a good understanding of the primary computing curriculum and allows us to effectively differentiate tasks for students.

Other methods of judging the impact of the computing curriculum offered are through the following methods:

- Pupil discussions and interviewing the pupils about their learning (pupil voice).
- Photo evidence and images of the pupils' practical learning.
- Monitoring of children's work.

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.

Online safety

Year 1 we...

Key Skills

- Identify whether information is safe or unsafe to be shared online with support.
- Begin to learn how to create a strong password.
- Learn to be respectful of others when sharing online and ask for their permission before sharing content.
- Begin to learn strategies for checking if something they read online is true.
- Understand how to stay safe when talking to people online and what to do if they see or hear something online that makes them feel upset or uncomfortable.

Key Knowledge

To know/begin to know

- The difference between online and offline.
- What information I should not post online.
- How to create a strong password.
- That you should ask permission from others before sharing about them online and that they have the right to say 'no.'
- That not everything I see or read online is true.

In Year 2 we...

Key Skills

- Identify whether information is safe or unsafe to be shared online.
- Learn how to create a strong password.
- Learn to be respectful of others when sharing online and ask for their permission before sharing content.
- Learn strategies for checking if something they read online is true.
- Understand how to stay safe when talking to people online and what to do if they see or hear something online that makes them feel upset or uncomfortable.

Key Knowledge

To know

- The difference between online and offline.
- What information I should not post online.
- How to create a strong password.
- You should ask permission from others before sharing about them online and that they have the right to say 'no.'
- That not everything I see or read online is true.

Computing systems and networks: Word Processing

Year 1 we...

Key Skills

- Become familiar with the keyboard and the basics of touch typing.
- Begin to develop word processing skills, including altering text, copying and pasting and using keyboard shortcuts.
- Use word processing software to type and reformat text with support.
- Search for appropriate images to use in a document with support.
- Understand what online information is.
- Identify whether information is safe or unsafe to be shared online.

Key Knowledge

begin to know

- Touch typing is the fastest way to type.
- I can make text a different style, size and colour.
- Copy and paste is a quick way of duplicating text.

In Year 2 we...

Key Skills

- Develop confidence with the keyboard and the basics of touch typing.
- Develop word processing skills, including altering text, copying and pasting and using keyboard shortcuts.
- Use word processing software to type and reformat text.
- Search for appropriate images to use in a document.
- Understand what online information is.

Key Knowledge

To know

- Touch typing is the fastest way to type.
- I can make text a different style, size and colour.
- Copy and paste is a quick way of duplicating text.

Creating media: Digital imagery

Year 1 we...

Key Skills

- Learn how to explore and tinker with hardware to find out how it works.
- Learn where keys are located on the keyboard.
- Learn how to operate a camera to take photos and videos.
- Develop the skills associated with sequencing in unplugged activities.
- Use a basic range of tools within graphic editing software.
- Take and edit photographs.
- Develop control of the mouse through dragging, clicking and resizing images to create different effects.
- Develop an understanding of different software tools
- Search and download images from the internet safely.
- Learn when using the internet to search for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable.

Key Knowledge

To know:

- Holding a camera or device still and considering angles and light are important to taking good pictures.
- Photographs can be edited, cropped and filtered.
- How to search safely for images online.

Key Skills

- Explore a wider range of digital devices and hardware, explaining their basic purpose and how they work together.
- Use the keyboard more confidently, locating and using letters, numbers, space bar, enter, backspace and shift keys accurately.
- Operate a camera or tablet camera independently to capture photographs and videos for a specific purpose.
- Develop sequencing skills
- Use an extended range of tools within graphic editing software.
- Capture, select and edit photographs using simple editing tools such as cropping, rotating and adjusting colour or brightness.
- Develop greater control of the mouse and touchscreen through selecting, dragging, resizing, rotating and arranging objects.
- Compare and choose appropriate software tools for different tasks, explaining how they help to create digital content.
- Use search tools safely to find, select and download appropriate images from the internet.
- Understand how to stay safe when searching online, recognising that not everything online is trustworthy and knowing how to report content that makes them feel worried, uncomfortable or unsafe.

Key Knowledge

To know:

- Good photographs depend on lighting, focus and angle.
- Photographs can be edited by cropping, rotating and adding effects.
- Different editing tools can change the appearance of an image.
- How to search safely for images online.

Creating media: Stop motion

Year 1 we...

Key Skills

- Use control when taking photos with cameras, tablets or computers.
- Tinker with software to explore, predict, test and explain what it does.

Key Knowledge

To know:

- An animation is made up of a sequence of photographs.
- Small changes in my frames will create a smoother looking animation.
- Which software creates simple animations

In Year 2 we...

Key Skills

- Use greater control when taking photos with cameras, tablets or computers.
- Use logical thinking to explore software, predicting, testing and explaining what it does.

Key Knowledge

To know:

- An animation is made up of a sequence of photographs.
- Small changes in my frames will create a smoother looking animation.
- Which software creates simple animations and some of its features e.g. onion skinning.

Data handling - Introduction to data

Year 1 we...

Key Skills

- Learn how to explore and tinker with hardware to find out how it works.
- Recognise that some devices are input devices and others are output devices.
- Learn where keys are located on the keyboard.
- Develop control of the mouse through dragging, clicking and resizing of images to create different effects.
- Develop understanding of different software tools.
- Recognise devices that are connected to the internet.
- Understand that technology can be used to represent data in different ways: pictograms, tables, pie charts, bar charts, block graphs etc.
- Use data representations to answer questions about data.
- Use software to explore and create pictograms and branching databases.

Key Knowledge

To know:

- Charts and pictograms can be created using a computer.
- Branching database is a way of classifying a group of objects.
- Computers understand different types of 'input'.

In Year 2 we...

Key Skills

- Explore hardware and explain how different devices work.
- Identify and classify input and output devices.
- Use the keyboard confidently, including a wider range of keys.
- Develop mouse control through selecting, dragging, resizing and arranging objects.
- Choose and use appropriate software tools for different tasks.
- Identify devices that connect to the internet and describe their purpose.
- Recognise different ways data can be represented, including pictograms, tables and charts.
- Use data representations to answer and ask simple questions
- Create and interpret pictograms and branching databases using software.

Key Knowledge

To know:

- Computers can create charts and pictograms to display data.
- Branching database sorts objects using yes/no questions.
- Computers use inputs to receive information and outputs to share information.

Computing systems and networks: What is a computer?

Year 1 we...

Key Skills

- Explore computers and identify their main parts.
- Recognise that pressing buttons and giving instructions causes actions to happen.
- Recognise that technology provides outputs such as sounds, images and text.
- Use a camera, tablet or computer to take simple photographs.
- Develop basic word processing skills by typing text and making simple changes.
- Use a keyboard to enter words and simple sentences.
- Create and label simple digital images.
- Recognise some ways computers are used at home, school and in the wider world.

Key Knowledge

To know:

- Computers can be different types, including desktops and laptops.
- People use technology to help them complete tasks.
- Examples of input devices that give instructions to a computer.
- Devices can work together to help people use technology.

In Year 2 we...

Key Skills

- Understand what a computer is and that it is made up of different components.
- Recognise that buttons cause effects and that technology follows instructions.
- Learn how we know that technology is doing what we want it to do via its output.
- Use greater control when taking photos with cameras, tablets or computers.
- Develop word processing skills, including altering text, copying and pasting and using keyboard shortcuts.
- Use word processing software to type and reformat text.
- Create and label images.
- Learn how computers are used in the wider world

Key Knowledge

To know:

- The difference between a desktop and a laptop computer.
- People control technology.
- Some input devices that give a computer an instruction about what to do (output).
- Computers often work together.

Online safety

Year 3 we...	Year 4 we...	Year 5 we...	Year 6 we...
Key Skills • Begin to understand why some results come before others when searching. • Begin to understand that information found by searching the internet is not all grounded in fact. • Learn to make judgements about the accuracy of online searches. • Begin to identify forms of advertising online. • Reflect on the positives and negatives of time online. • Identify respectful and disrespectful online behaviour. • Begin to recognise that information on the Internet might not be true or correct and that some sources are more trustworthy than others. Key Knowledge To know: • Some of the methods used to encourage people to buy things online with support. • Technology can be designed to act like or impersonate living things. • Technology can be a distraction.	Key Skills • Understand why some results come before others when searching. • Understand that information found by searching the internet is not all grounded in fact. • Learn to make judgements about the accuracy of online searches. • Identify forms of advertising online. • Reflect on the positives and negatives of time online. • Identify respectful and disrespectful online behaviour. • Recognise that information on the Internet might not be true or correct and that some sources are more trustworthy than others. Key Knowledge To know: • Some of the methods used to encourage people to buy things online. • Technology can be designed to act like or impersonate living things. • Technology can be a distraction and identify when someone	Key Skills • Understand why some results come before others when searching and offer reasons for this. • Understand that information found by searching the internet is not all grounded in fact. • Learn to make judgements about the accuracy of online searches. • Identify forms of advertising online. • Reflect on the positives and negatives of time online. • Identify respectful and disrespectful online behaviour. • Recognise that information on the Internet might not be true or correct and that some sources are more trustworthy than others. Key Knowledge To know: • Some of the methods used to encourage people to buy things online. • Technology can be designed to act like or impersonate living things.	Key Skills • Understand and explain why some results come before others when searching. • Understand that information found by searching the internet is not all grounded in fact. • Learn to make judgements about the accuracy of online searches and explain their thinking. • Identify forms of advertising online. • Reflect on the positives and negatives of time online. • Identify respectful and disrespectful online behaviour. • Recognise that information on the Internet might not be true or correct and that some sources are more trustworthy than others. Key Knowledge To know: • Some of the methods used to encourage people to buy things online. • Technology can be designed to act like or impersonate living things.

• What behaviours are appropriate to stay safe and be respectful online.	might need to limit the amount of time spent using technology. • What behaviours are appropriate to stay safe and be respectful online.	• Technology can be a distraction and identify when someone might need to limit the amount of time spent using technology. • What behaviours are appropriate to stay safe and be respectful online.	• Technology can be a distraction and identify when someone might need to limit the amount of time spent using technology. What behaviours are appropriate to stay safe and be respectful online.
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Data Handling: Comparison card databases

Year 3 we...	Year 4 we...	Year 5 we...	Year 6 we...
Key Skills • Use logical thinking to explore more complex software, predicting, testing and explaining what it does. • Understand the vocabulary associated with databases: field, record and data. • Learn about the pros and cons of digital versus paper databases. • Sort and filter databases to quickly retrieve information. • Create and interpret charts and graphs to understand data Key Knowledge To know: • A database is a collection of data stored in a logical, structured and orderly manner. • Computer databases can be useful for sorting and filtering data. • Different visual representations of data can be made on a computer.	Key Skills • Use logical thinking to explore more complex software, predicting, testing and explaining what it does confidently. • Understand and explain the vocabulary associated with databases: field, record and data. • Learn about the pros and cons of digital versus paper databases and be able to talk about them. • Sort and filter databases to quickly retrieve information. • Create and interpret charts and graphs to understand data Key Knowledge To know: • A database is a collection of data stored in a logical, structured and orderly manner. • Computer databases can be useful for sorting and filtering data. • Different visual representations of data can be made on a computer and give some examples.	Key Skills • Use logical thinking to explore more complex software, predicting, testing and explaining what it does in detail. • Understand and explain the vocabulary associated with databases: field, record and data. • Learn about the pros and cons of digital versus paper databases and be able to talk about them. • Sort and filter databases to quickly retrieve information to answer a question. • Create and interpret charts and graphs to understand data. Key Knowledge To know: • A database is a collection of data stored in a logical, structured and orderly manner. • Computer databases can be useful for sorting and filtering data. • Different visual representations of data can be made on a computer and give some examples.	Key Skills • Use logical thinking to explore more complex software, predicting, testing and explaining what it does in detail. • Understand and explain the vocabulary associated with databases: field, record and data. • Learn about the pros and cons of digital versus paper databases and be able to talk about them. • Sort and filter databases to quickly retrieve information to answer a question. • Create and interpret charts and graphs to understand data and be able to explain pros and cons of them. Key Knowledge To know: • A database is a collection of data stored in a logical, structured and orderly manner. • Computer databases can be useful for sorting and filtering data. • Different visual representations of data can be made on a computer and give some examples.

Data Handling: Investigating weather

Year 3 we...	Year 4 we...	Year 5 we...	Year 6 we...
Key Skills • Use a tablet or digital camera to record a simple weather report. • Understand that weather stations use equipment to measure and collect weather information. • Use simple keywords to search for information online with support. • Find information and data on the internet safely. • Design a simple weather-measuring device. • Enter data into a spreadsheet with guidance. • Use a spreadsheet to organise data and compare information. • Understand that weather information can help people make predictions about the weather. Key Knowledge To know: • Computers can collect information from the world around them.	Key Skills • Use tablets or digital cameras to film a weather forecast. • Understand that weather stations use sensors to gather and record data that predicts the weather. • Use keywords to effectively search for information on the internet. • Search the internet for data. • Design a device that gathers and records sensor data. • Record data in a spreadsheet independently. • Sort data in a spreadsheet to compare using the 'sort by...' option. • Understand that data is used to forecast weather. Key Knowledge To know: • Computers can use different forms of input to sense the world around them so that they can record and respond to data ('sensor data').	Key Skills • Plan, film and edit a weather forecast using digital devices. • Explain how weather stations use sensors to collect weather data. • Use effective search techniques to find information online. • Collect and compare weather data from online sources. • Design and explain a device or system that uses multiple sensors to gather and record data. • Independently record and organise data in a spreadsheet. • Sort and filter spreadsheet data to identify patterns. • Explain how data is used to make weather forecasts. Key Knowledge To know: • Computers use a range of sensors to collect and record data from the environment. • Weather forecasts are created using data collected from sensors and other sources. • Understand that weather presenters use technical vocabulary, visual aids and	Key Skills • Create and edit a weather forecast using digital devices and software. • Explain how sensors, computers and networks collect weather data. • Use advanced search techniques to find and evaluate reliable online information. • Gather and compare weather data from multiple online sources. • Design and explain a sensor-based device for collecting environmental data. • Independently organise and manage data in spreadsheets. • Sort, filter and analyse data to identify patterns and trends. • Explain how large datasets and computer models support weather forecasting. Key Knowledge To know: • Understand how sensors, satellites and weather stations collect and transmit environmental data.

• Some machines can automatically respond to information they collect. • Weather forecasts give people information about what the weather might be like. • Weather presenters use clear language to explain weather information.	• A weather machine is an automated machine that respond to sensor data. • Understand that weather forecasters use specific language, expression and pre-prepared scripts to help create weather forecast films.	prepared scripts to communicate forecasts effectively.	• Explain how computers analyse large datasets to create and improve weather forecasts. • Understand that weather predictions are based on data, computer models and human interpretation. • Explain how technical vocabulary, graphics and data visualisations help communicate weather forecasts effectively.
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Data Handling: Mars Rover

Year 3 we...	Year 4 we...	Year 5 we...	Year 6 we...
Key Skills - Know that computers can help control simple devices. - Understand that computers store information. - Learn the word data and know it means information. - Recognise that computers use special codes. - Understand that computers use codes to represent letters and numbers. - Create and read simple coded messages. - Know that information can be collected from different places. - Explore how information can tell us about a place. - Identify ways people communicate using technology. Key Knowledge To know: - Mars rovers collect information from space. - Computers use codes to send messages. - Computers have memory to help them work. - Simple number patterns can be made using binary.	Key Skills - Know that computers can control other devices. - Understand that computers store and process information. - Learn key vocabulary: data and transmit. - Recognise that computers use codes to send information. - Understand that computers use different codes to represent letters and numbers. - Read and create simple coded messages. - Understand that data can be collected from places that are difficult to visit. - Explore how data can tell us about a place or environment. - Identify different ways people communicate using technology. Key Knowledge To know: - Mars rovers collect information from space. - Computers can use simple codes to send messages. - RAM helps a computer work with information.	Key Skills - Learn that a separate computer can program external devices. - Recognise how the size of RAM affects the processing of data. - Learn the vocabulary associated with data: data and transmit. - Recognise that computers transfer data in binary and understanding simple binary addition. - Relate binary signals (Boolean) to the simple character-based language, ASCII. - Learn that messages can be sent by binary code, reading binary up to eight characters and carrying out binary calculations. - Understand how data is collected in remote or dangerous places. - Understand how data might be used to tell us about a location. - Learn about different forms of communication that have developed with the use of technology. Key Knowledge To know: - Mars Rover is a motor vehicle that collects data from space by	Key Skills - Understand how computers control external devices and systems. - Explain how RAM affects computer performance. - Use key vocabulary: data, transmit, storage. - Explain how computers use and transfer data in binary. - Understand how text is represented using ASCII. - Read, write and calculate with 8-bit binary numbers. - Understand how sensors collect data in remote or dangerous locations. - Analyse data to learn about places and environments. - Evaluate how technology has changed communication. Key Knowledge To know: - Mars rovers collect and send data from space. - Binary uses 0s and 1s to represent data and messages. - RAM is a computer's working memory.

	• Simple patterns can be made and solved using binary numbers.	taking photos and examining rock samples. • What numbers using binary code look like and be able to identify how messages can be sent in this format. • RAM is Random Access Memory and acts as the computer's working memory. • What simple operations can be used to calculate bit patterns.	• Binary numbers can be calculated using simple addition.
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Data Handling: Big data 1

Year 3 we...	Year 4 we...	Year 5 we...	Year 6 we...
Key Skills • Recognise barcodes and QR codes in everyday life. • Understand that barcodes and QR codes store information. • Collect and record simple data. • Sort data in a simple spreadsheet, with support. • Know that data can help people make decisions. Key Knowledge To know: • Barcodes and QR codes hold information. • Computers can read barcodes and QR codes. • Information can be sent between devices. • Some data is protected to keep it safe.	Key Skills • Identify the use of barcodes, QR codes and RFID. • Explain how barcodes, QR codes and RFID store and transfer information. • Collect, analyse and interpret real-time data. • Use formulas and sorting tools in spreadsheets, with support. • Understand how big data can be used to solve problems and improve efficiency. Key Knowledge To know: • Barcodes and QR codes store information that computers can read. • Information can be sent using invisible signals, such as infrared. • RFID is a way of sending information without touching a device. • Data can be protected so that only the correct people can use it.	Key Skills • Identify barcodes, QR codes and RFID and describe where they are used. • Identify technology that can scan and access information from barcodes and QR codes. • Describe the basic purpose of barcodes, QR codes and RFID systems. • Collect and examine data using digital devices and software. • Organise and sort data within a spreadsheet. • Recognise that data can be used to solve problems and make informed decisions. Key knowledge To know • Barcodes and QR codes store data that can be read by computers and mobile devices. • Infrared is one way of sending and receiving information. • RFID allows data to be transferred wirelessly. • Digital information can be protected to help keep personal data safe from unauthorised access.	Key Skills • Understand and identify barcodes, QR codes and RFID. • Identify devices and applications that can scan or read barcodes, QR codes and RFID. • Understand how barcodes, QR codes and RFID work. • Gather and analyse data in real time. • Create formulas and sort data within spreadsheets. • Learn how 'big data' can be used to solve a problem or improve efficiency. Key knowledge To know • Data contained within barcodes and QR codes can be used by computers. • Infrared waves are a way of transmitting data. • Radio Frequency Identification (RFID) is a more private way of transmitting data. • Data is often encrypted so that even if it is stolen it is not useful to the thief.

Data Handling: Big data 2

Year 3 we...	Year 4 we...	Year 5 we...	Year 6 we...
Key Skills - Understand that information can be shared between computers can get corrupted. - Understand that computer networks help people access services. - Use search and word-processing tools to create simple work. - Sort simple data in a spreadsheet with support. - Understand that some everyday devices can connect to the internet. - Recognise that data can help people solve problems. Key Knowledge To know: - information can be sent between computers and devices. - Information can get damaged when sent. - Know that information can be sent in small parts. - Know that keeping devices updated helps keep them safe. - Know that the internet can be accessed through Wi-Fi or mobile data.	Key Skills - Understand how corruption can happen within data during transfer (for example when downloading, installing, copying and updating files). - Understand that computer networks provide multiple services. - Use search and word processing skills to create a presentation. - Create formulas and sort data within spreadsheets. - Learn about the Internet of Things and how it has led to 'big data'. - Learn how 'big data' can be used to solve a problem or improve efficiency. Key Knowledge To know: - Data can sometimes be damaged when it is sent between devices. - Sending data in small parts can help it arrive correctly. - Devices need regular updates to help keep them secure. - The difference between mobile data and Wi-Fi.	Key skills - Recognise that problems can occur when files are transferred, downloaded or updated. - Understand that computer networks allow devices to share information and resources. - Use search tools and word processing software to research and create a presentation. - Enter, organise and sort data within a spreadsheet. - Explore how everyday devices can connect to the internet and share information. - Understand that collecting and using data can help answer questions and solve simple problems. Key knowledge To know - Data can be sent across networks in small parts to help it reach its destination correctly. - Regular software and security updates help keep devices safe. - Wi-Fi connects devices to the internet through a wireless network, while mobile data uses a mobile phone network.	Key skills - Understand how corruption can happen within data during transfer (for example when downloading, installing, copying and updating files). - Understand that computer networks provide multiple services. - Use search and word processing skills to create a presentation. - Create formulas and sorting data within spreadsheets. - Learn about the Internet of Things and how it has led to 'big data'. - Learn how 'big data' can be used to solve a problem or improve efficiency. Key knowledge To know - Data can become corrupted within a network but this is less likely to happen if it is sent in 'packets'. - Devices that are not updated are most vulnerable to hackers. - The difference between mobile data and WiFi.

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

Year 1	Year 2
• Follow a simple set of instructions. • Give instructions to make something happen on a computer. • Spot and fix a simple mistake in a program. • Use a computer or tablet to create pictures, text or other work. • Save and find my work with help. • Name ways that people use technology every day. • Keep personal information private. • Tell a trusted adult if something online makes me feel worried or unsafe.	• Follow and create a simple set of instructions. • Write and test a simple program. • Find and fix simple mistakes in my program. • Predict what a simple program will do. • Use a computer or tablet to create and save work. • Organise and find information using digital tools. • Keep my personal information safe. • Ask a trusted adult for help if something online worries me.

Year 3	Year 4
• Write and test a simple program. • Use a loop to repeat instructions. • Find and fix simple mistakes in my code. • Explain how devices can connect to the internet. • Collect and present information using digital tools. • Create and save digital work independently. • Keep my personal information safe online. • Know what to do if something online makes me feel worried or uncomfortable.	• Create, test and debug a simple program. • Use loops and simple decisions in my code. • Explain how computers connect and share information. • Collect and present data using digital tools. • Create digital projects using a range of media. • Keep myself safe online and protect my personal information. • Use technology responsibly and respectfully. • Explain my thinking when solving computing problems

Year 5	Year 6
• Create a program using variables, loops and decisions. • Debug code independently. • Explain how the internet and websites work. • Gather and analyse data using digital tools. • Create multimedia presentations for a chosen audience. • Stay safe online and explain how to protect personal information.	• Design and create a program using variables, loops and selection. • Debug and improve my code independently. • Explain how the internet works and how information is shared online. • Use data to answer questions and solve problems. • Create digital content for a specific purpose and audience. • Evaluate online information for reliability. • Stay safe online and help others to do the same. • Use technology responsibly and respectfully.