



COMPUTING

OVERVIEW

INTENT STATEMENT

Why is it important to learn computing?

All our pupils deserve a rich learning experience balancing different aspects of the computing curriculum. With ICT playing an increasingly important role in young lives, we believe children must be given opportunities to learn how to participate effectively and safely in this digital world, as users, consumers and creators.

What does computing look like at Golcar JI&N?

Computing at Golcar is treated as a multidisciplinary subject, learned through clearly focused, dedicated computing lessons, but also embedded as part of a creatively cross-curricular approach.

- We nurture our pupils in their curiosity about the connected world and ensure that they understand how the digital systems which they use actually work.
- Pupils learn how to use computational thinking to create and solve problems through coding.
- Pupils discover the value of different apps and devices in helping them create, develop, analyse, evaluate and present ideas and information.
- They learn how to recognize and manage risks when communicating electronically through fun, engaging and age-appropriate schemes of work. These skills are reinforced and embedded whenever pupils use ICT to enrich their learning across the curriculum; we aspire for our pupils to become increasingly confident and independent when choosing to use ICT to help them achieve their objectives.

How do we promote learning in Computing?

Showcases of children's work

Use of computing in different areas of the curriculum

National theme days: safer internet day

Computing Curriculum Map

	Autumn Term		Spring Term		Summer Term	
Early Years	Computing through continuous provision	Using a computer	All about instructions	Exploring hardware	Programming Bee-Bots	Introduction to data
Year 1	Improving mouse skills	Algorithms unplugged	Rocket to the moon	Programming Bee-Bots	Digital imagery	Introduction to data
Year 2	What is a computer?	Algorithms and debugging	Word processing	Scratch Jr	Stop motion	International space station

Computing Curriculum Map

	Autumn Term		Spring Term		Summer Term	
Year 3	Networks	Programming: Scratch	Emailing: Google	Journey inside a computer	Video trailers: ipads	Comparison cards databases
Year 4	Collaborative Learning: google	Further coding with Scratch	Website design: google	HTML	Computational thinking	Investigating weather
Year 5	Search engines	Programming: music	Mars Rover 1	Micro:bit	Stop motion	Mars Rover 2
Year 6	Programming Intro to Python	Data Handling Big Data 1	Bletchley Park and the history of computers	Exploring AI	Big Data 2	Inventing a product

GOLCAR GOALS YEAR 1

COMPUTER SYSTEMS AND NETWORKS

Key Skills

- Learn how to explore and tinker with hardware to find out how it works.
- Learn where keys are located on the keyboard.
- Use a basic range of tools within graphic editing software.
- Develop control of the mouse through dragging, clicking and resizing images to create different effects.
- Develop an understanding of different software tools.
- Recognise devices that are connected to the internet.
- Log in and out and saving work on their own account.

Key Knowledge

- Log in and log out means to begin and end a connection with a computer
- A computer and mouse can be used to click, drag, fill, select, add backgrounds, text, layers and shapes
- Passwords are important for security and to keep us safe.

PROGRAMMING 1

Key Skills

- Recognise that some devices are input devices and others are output devices.
- Learn that decomposition means breaking a problem down into smaller parts.
- Use decomposition to solve unplugged challenges.
- Develop the skills associated with sequencing in unplugged activities.
- Follow a basic set of instructions.
- Assemble instructions into a simple algorithm.
- Learn to debug instructions when things go wrong.
- Learn to debug an algorithm in an unplugged scenario.

Key Knowledge

- An algorithm is when instructions are put in an exact order.
- Decomposition means breaking a problem into manageable chunks, which is important in computing.
- Errors in an algorithm are called bugs and fixing these is called debugging.

PROGRAMMING 2

Key Skills

- Learn how to explore and tinker with hardware to find out how it works.
- Learn how to operate a camera to take photos and videos.
- Use decomposition to solve unplugged challenges.
- Use logical reasoning to predict the behaviour of simple programs.
- Develop the skills associated with sequencing in unplugged activities.
- Follow a basic set of instructions. Assemble instructions into a simple algorithm.
- Programme a floor robot to follow a route.
- Learn to debug instructions when things go wrong.
- Use programming language to explain how a floor robot works.
- Learn to debug an algorithm in an unplugged scenario.
- Take and editing photographs.

Key Knowledge

- Know the basic functions of a Bee-Bot.
- Can use a tablet to make simple videos.
- Algorithms move a Bee-Bot accurately to a chosen destination.

GOLCAR GOALS YEAR 1

SHOWCASING SKILLS

Key Skills

- Learn where keys are located on the keyboard.
- Operate a camera to take photos and videos.
- Use logical reasoning to predict the behaviour of simple programs.
- Develop the skills associated with sequencing in unplugged activities.
- Follow a basic set of instructions.
- Assemble instructions into a simple algorithm.
- Learn to debug instructions when things go wrong.
- Learn to debug an algorithm in an unplugged scenario.
- Use a basic range of tools within graphic editing software.
- Take and edit photographs.
- 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
- Log in and out and saving work on their own account

Key Knowledge

- Know that when we create something on a computer it can be more easily saved and shared than a paper version.
- Know some of the simple graphic design features of a piece of online software.
- Know that a spreadsheet is an electronic 'table' for sorting data.

DATA HANDLING

Key Skills

- Learn how to explore and tinker with hardware to determine how it works.
- Recognise that some devices are input devices and others are output devices.
- Learn where keys are located on the keyboard.
- Developing control of the mouse through dragging, clicking and resizing images to create different effects.
- Develop an 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.
- Use data representations to answer questions about data.
- Use software to explore and create pictograms and branching databases.

Key Knowledge

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

CREATING MEDIA

Key Skills

- Learn how to explore and tinker with hardware to find out how it works.
- Learn where keys are located on the keyboard.
- Learning how to operate a camera to take photos and videos.
- Develop the skills associated with sequencing in unplugged activities.
- Using a basic range of tools within graphic editing software.
- Taking and editing photographs.
- Develop control of the mouse through dragging, clicking and resizing images to create different effects.
- Developing an understanding of different software tools. searching and downloading images from the internet.
- 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

- Hold 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.

GOLCAR GOALS YEAR 1

Self-Image and Identity.

I can recognise that there may be people online who could make someone feel sad, embarrassed or upset.

If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.

Online Relationships

I can give examples of when I should ask permission to do something online and explain why this is important.

I can use the internet with adult support to communicate with people I know (e.g. video call apps or services).

I can explain why it is important to be considerate and kind to people online and to respect their choices

I can explain why things one person finds funny or sad online may not always be seen in the same way by others.

Online Reputation

I can recognise that information can stay online and could be copied.

I can describe what information I should not put online without asking a trusted adult first.

Online Bullying

I can describe how to behave online in ways that do not upset others and can give examples.

Managing Online Information

I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching.

I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke.

I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.

Health, Wellbeing and Lifestyle

I can explain rules to keep myself safe when using technology both in and beyond the home.

Privacy and Security

I can explain how passwords are used to protect information, accounts and devices.

I can recognise more detailed examples of information that is personal to someone (e.g. where someone lives and goes to school, family names).

I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others.

Copyright and Ownership

I can explain why work I create using technology belongs to me.

I can say why it belongs to me (e.g. 'I designed it' or 'I filmed it').

I can save my work under a suitable title or name so that others know it belongs to me (e.g. filename, name on content).

I understand that work created by others does not belong to me even if I save a copy

YEAR 1 KEY VOCABULARY

Unit	
Computing systems and networks: Improving mouse skills	account, click, clipart , computer , drag, drag and drop, duplicate , fill, image, layers , left-click, log in, log off, mouse, password, predict, redo, resize, right click, screen (monitor), software, tool , username, undo
Programming 1: Algorithms unplugged	algorithm, artificial intelligence, bug, chunks , code , computer , debug, decompose , device, directions, input , instructions, manageable , order , organise , output , program, problem, solution , specific , tasks , virtual assistant
Skills showcase: Rocket to the moon	annotate , cells, components, create , data , debug, designing , digital content , digital image , document , e-document , edit, editing software, editing program, evaluate , folder , graphics, input, instructions, log in, photo, program, order, robot, save , sequence, share , software , spreadsheet , table
Programming 2: Bee-Bots	algorithm, Bee-Bot , code, debug, demonstration , explain, explore , filming , inputting , instructions, pause , precise, predict , program , review , test , tinker, video (Option 2- clear)
Creating media: Digital imagery	background , blurred , camera, clear, crop , delete, device, digital camera , download , drag and drop, edit, editing software, filter , image, import , internet, keyword, online, photograph , resize , save as, screen, search engine , sequence, software, storage space , visual effects
Data handling: Introduction to data	bar chart , block graph , branching database , categorise , chart , click and drag, compare , count , data , data collection , data record , data representation , edit, input, keyboard, line graph, mouse, information, label, pictogram , pie chart , process , record, resize, sort , table, tally , values
Online safety	app, appropriate, device, digital footprint , feelings , going online , in-person interactions, internet, kindness, offline activity, online activity, online experience, online interactions, online safety, personal information , pop-up , posting online , report , responsible digital citizen, screen time , sharing online , stranger , technology, trusted adult, unkind, website

GOLCAR GOALS YEAR 2

COMPUTER SYSTEMS AND NETWORKS 1

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

- 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

PROGRAMMING 1

Key Skills

- Develop confidence with the keyboard and the basics of touch typing.
- Articulate what decomposition is.
- Decompose a game to predict the algorithms used to create it.
- Learn that there are different levels of abstraction.
- Explain what an algorithm is.
- Follow an algorithm.
- Create a clear and precise algorithm.
- Learn that programs execute by following precise instructions.
- Incorporate loops within algorithms.
- Use logical thinking to explore software, predicting, testing and explaining what it does.
- Use an algorithm to write a basic computer program.
- Develop word processing skills, including altering text, copying and pasting and using keyboard shortcuts.

Key Knowledge

- To understand what machine learning is and how it enables computers to make predictions.
- To know that loops in programming are where you set a certain instruction (or instructions) to be repeated multiple times.
- To know that abstraction is the removing of unnecessary detail to help solve a problem.

COMPUTER SYSTEMS AND NETWORKS 2

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.
- Identify whether information is safe or unsafe to be shared online.

Key Knowledge

- To know that touch typing is the fastest way to type.
- To know that I can make text a different style, size and colour.
- To know that “copy and paste” is a quick way of duplicating text.

GOLCAR GOALS YEAR 2

PROGRAMMING 2

Key Skills

- Recognise that buttons cause effects and that technology follows instruction
- Explain what an algorithm is.
- Follow an algorithm.
- Creating a clear and precise algorithm.
- Learn that programs execute by following precise instructions.
- Incorporate loops within algorithms.
- Use logical thinking to explore software, predicting, testing and explaining what it does.
- Use an algorithm to write a basic computer program.
- Use loop blocks when programming to repeat an instruction more than once.
- Use software (and unplugged means) to create story animations.

Key Knowledge

- To know that coding is writing in a special language so that the computer understands what to do.
- To understand that the character in ScratchJr is controlled by the programming blocks.
- To know that you can write a program to create a musical instrument or tell a joke.

CREATING MEDIA

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 understand that an animation is made up of a sequence of photographs.
- To know that small changes in my frames will create a smoother looking animation.
- To understand what software creates simple animations and some of its features e.g. onion skinning.

HANDLING DATA

Key Skills

- Develop confidence with the keyboard and the basics of touch typing.
- Create and label images.
- Collect and input data into a spreadsheet.
- Interpret data from a spreadsheet.
- Learn how computers are used in the wider world.

Key Knowledge

- Simple data can be entered into a spreadsheet.
- What steps are needed to take to create an algorithm.
 - What data to use to answer certain questions.
 - Computers can be used to monitor supplies.

GOLCAR GOALS YEAR 2

Self-Image and Identity.

I can explain how other people may look and act differently online and offline.

I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help.

Online Relationships

I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country).

I can explain who I should ask before sharing things about myself or others online.

I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure.

I can explain why I have a right to say 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do.

Online Reputation

I can explain how information put online about someone can last for a long time.

I can describe how anyone's online information could be seen by others.

I know who to talk to if something has been put online without consent or if it is incorrect.

Online Bullying

I can explain what bullying is, how people may bully others and how bullying can make someone feel.

I can explain why anyone who experiences bullying is not to blame

I can talk about how anyone experiencing bullying can get help.

Managing Online Information

I can use simple keywords in search engines

I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).

I can explain what voice activated searching is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri).

I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'

Health, Wellbeing and Lifestyle

I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment.

I can say how those rules / guides can help anyone accessing online technologies

Privacy and Security

I can explain how passwords can be used to protect information, accounts and devices

I can explain and give examples of what is meant by 'private' and 'keeping things private'.

I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).

I can explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).

Copyright and Ownership

I can recognise that content on the internet may belong to other people.

I can describe why other people's work belongs to them

YEAR 2 KEY VOCABULARY

Unit	
Computing systems and networks 1: What is a computer?	battery, buttons, camera, computer, desktop, device, digital content, digital recorder, electricity, input, invention, keyboard, laptop, monitor, mouse, output, photograph, robot, scanner, screen, system, tablet, technology, till, video, wire
Programming 1: Algorithms and debugging	abstraction, algorithm, artificial intelligence, bug, clear, correct, data, debug, decompose, error, key features, loop, predict, unnecessary
Computing systems and networks 2: Word processing	back button, backspace, bold, copy, copyright, cut, delete, forward button, highlight, image, import, italic, keyboard, keyboard shortcut, layout, navigate, paste, redo, search, space bar, text, text effects, touch typing, underline, undo, word processing
Programming 2	algorithm, bug, debug, programming, sequence (Option 1 - as above, plus: block coding, evaluate, micro:bit, MakeCode, program) (Option 2 - as above, plus: animation, blocks, button, CGI, computer code, fluid, icon, imitate, instructions, loop, 'on tap', repeat, Scratch Jr , sound recording)
Creating media: Stop motion	Animation, animator, background, digital device, drawing, flipbook, frames, moving images, opinion skinning, still images (Option 1- as above, plus: decompose, object, plan) (Option 2- as above, plus: decompose, digital camera, duration, focus, import, object, plan, save, upload) (Option 3- as above, plus: debug, effects, evaluate, fluid, pen tool, static)
Data handling: International space station	algorithm , astronaut, column, data, digital content, essential, experiment, Goldilocks zone, interactive map, International Space Station, input, monitor, row, satellite, sensor, space, spreadsheet, survival, temperature, thermometer.
Online safety	accepting, consent, denying permission, fake, giving permission, offline, online, password, permission, personal information, pop-up, pressure, private information, real, reliable, sharing online, source, trusted adult

GOLCAR GOALS YEAR 3

COMPUTER SYSTEMS AND NETWORKS 1

Key Skills

- Learn about the purpose of routers.
- Understand the role of the key components of a network.
- Understand that websites and videos are files that are shared from one computer to another.
- Learn about the role of packets.
- Understand how networks work and their purpose.
- Identify the key components within a network, including whether they are wired or wireless.
- Recognise links between networks and the internet.
- Learn how data is transferred.

Key Knowledge

- To understand that a network is a group of interconnected devices.
- To know the components that make up a network (Wireless access point/WAP, Network switch, Router, Server and devices).
- To know that a server is central to a network and responds to requests made.
- To know that the internet connects all the networks around the world.
- To know that a router connects us to the internet.
- To know what a packet is and why it is important for website data transfer.

PROGRAMMING

Key Skills

- Use decomposition to explore the code behind an animation.
- Use repetition in programs.
- Use logical reasoning to explain how simple algorithms work.
- Explain the purpose of an algorithm.
- Form algorithms independently.
- Use logical thinking to explore more complex software; predicting, testing and explaining what it does.
- Incorporate loops to make code more efficient.
- Continue existing code.
- Make reasonable suggestions for how to debug their own and others' code.

Key Knowledge

- To know that Scratch is a programming language and some of its basic functions.
- To understand how to use loops to improve programming.
- To understand how decomposition is used in programming.
- To understand that you can remix and adapt existing code.

COMPUTER SYSTEMS AND NETWORKS 2

Key Skills

- Learning to log in and out of an email account.
- Writing an email including a subject, 'to' and 'from'.
- Sending an email with an attachment.
- Replying to an email.
- Understanding the purpose of emails.
- Learning about cyberbullying.
- Learning that not all emails are genuine, recognising when an email might be fake and what to do about it.

Key Knowledge

- To understand that email stands for 'electronic mail.'
- To know that an attachment is an extra file added to an email.
- To understand that emails should contain appropriate and respectful content.
- To know that cyberbullying is bullying using electronics such as a computer or phone.

GOLCAR GOALS YEAR 3

COMPUTER SYSTEMS AND NETWORKS 3

Key Skills

- Understanding what the different components of a computer do and how they work together.
- Drawing comparisons across different types of computers.
- Using decomposition to explain the parts of a laptop computer.
- Explaining the purpose of an algorithm

Key Knowledge

- To know the roles that inputs and outputs play on computers.
- To know what some of the different components inside a computer are e.g. CPU, RAM, hard drive, and how they work together.
- To know what a tablet is and how it is different from a laptop/desktop computer

CREATING MEDIA – VIDEO TRAILERS

Key Skills

- Using logical thinking to explore more complex software; predicting, testing and explaining what it does.
- Taking photographs and recording video to tell a story.
- Using software to edit and enhance their video adding music and text on screen with transitions.

Key Knowledge

- To know that different types of camera shots can make my photos or videos look more effective.
- To know that I can edit photos and videos using film editing software.
- To understand that I can add transitions and text to my video.

HANDLING DATA

Key Skills

- Using logical thinking to explore more complex software, predicting, testing and explaining what it does.
- Understanding the vocabulary associated with databases: field, record and data.
- Learning about the pros and cons of digital versus paper databases.
- Sorting and filtering databases to quickly retrieve information.
- Creating and interpreting charts and graphs to understand data.

Key Knowledge

- 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.

GOLCAR GOALS YEAR 3

Self-Image and Identity.

I can explain what is meant by the term 'identity'.

I can explain how people can represent themselves in different ways online.

I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why.

Online Relationships

I can describe ways people who have similar likes and interests can get together online.

I can explain what it means to 'know someone' online and why this might be different from knowing someone offline.

I can explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with.

I can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.

Online Reputation

I can explain how to search for information about others online

I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal.

I can explain who someone can ask if they are unsure about putting something online.

Online Bullying

I can describe appropriate ways to behave towards other people online and why this is important.

I can give examples of how bullying behaviour could appear online and how someone can get support.

Managing Online Information

I can demonstrate how to use key phrases in search engines to gather accurate information online.

I can explain what autocomplete is and how to choose the best suggestion.

I can explain how the internet can be used to sell and buy things

I can explain the difference between a 'belief', an 'opinion' and a 'fact' and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc.

Health, Wellbeing and Lifestyle

I can explain why spending too much time using technology can sometimes have a negative impact on anyone; I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged

I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites).

Privacy and Security

I can describe simple strategies for creating and keeping passwords private.

I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult.

I can describe how connected devices can collect and share anyone's information with others.

Copyright and Ownership

I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.

YEAR 3 KEY VOCABULARY

Unit	
Computing systems and networks 1: Networks	device, file, internet, network, network switch, packet data, router, server, the cloud, user, Wi-Fi, wired, wireless, wireless access point
Programming: Scratch	algorithm, animation, application , code, code block, debug, decompose, game, interface, loop, predict, program, remixing code, repetition code, review, Scratch , sprite, tinker
Computing systems and networks 2: Emailing	attachment , bcc (blind carbon copy) cc (carbon copy) , compose , content, cyberbullying , document, domain , download , email , email account , email address , emoji, emotions, fake , font, genuine , hacker , icons, inbox , information, link , log in, log out, negative language , password, personal information, positive language , reply, responsible digital citizen , scammer , settings , send , sign in , spam email , subject bar , theme , tone , username , virus , WiFi
Computing systems and networks 3: Journey inside a computer	algorithm, assemble , CPU (central processing unit) , data, decompose, desktop, disassemble , GPU (graphics processing unit) , hard drive, HDD (hard disk drive) , infinite loop, input, keyboard, laptop, memory , microphone , monitor, mouse, output, photocopier, program, QR code , RAM (random access memory) , ROM (read only memory) , storage, tablet device, technology, touchscreen , touchpad
Creating media: Video trailers	application, camera angle, clip , edit, film editing software , graphics , import, key events, music, photo, plan, recording, sound effects , storyboard, time code , trailer , transition , video, voiceover (Option 1 - as above, plus: cross blur , crossfade , cross zoom , desktop, digital device, dip to black , directional wipe , laptop) (Option 2 - as above, plus: cross dissolve , fade to black/white , slide , wipe)
Data handling: Comparison cards databases	categorise, category, chart, data, database, Excel , fields , filter , graph, information, interpret , PDF , questionnaire , record, representation, sort, spreadsheet
Online safety	accurate, age restrictions , autocomplete , belief , charity , content, digital device, fact , fake news , hoax, internet, internet of things, opinion , online emotions, organisation, permission, privacy settings, reliable, search, search engine, share, smart devices, social media platforms

GOLCAR GOALS YEAR 4

COMPUTER SYSTEMS AND NETWORKS

Key Skills

- Understanding that computer networks provide multiple services, such as the world wide web, and opportunities for communication and collaboration.
- Use online software for documents, presentations, forms and spreadsheets.
- Using software to work collaboratively with others.
- Understanding that software can be used collaboratively online to work as a team.
- Recognising what appropriate behaviour is when collaborating with others online.

Key Knowledge

- Software can be used collaboratively online to work as a team.
- What type of comments and suggestions on a collaborative document can be helpful.
- You can use images, text, transitions and animation in presentation slides.

PROGRAMMING

Key Skills

- Using decomposition to solve a problem by finding out what code was used.
- Using decomposition to understand the purpose of a script of code.
- Creating algorithms for a specific purpose.
- Coding a simple game.
- Incorporating variables to make code more efficient.
- Remixing existing code.

Key Knowledge

- That a variable is a value that can change (depending on conditions) and know that you can create them in Scratch.
- What a conditional statement is in programming.
- That using variables can help you to create a quiz on Scratch

CREATING MEDIA: GOOGLE

Key Skills

- Building a web page and creating content for it.
- Designing and creating a webpage for a given purpose.
- Using software to work collaboratively with others.

Key Knowledge

- To know that a website is a collection of pages that are all connected.
- To know that websites usually have a homepage and subpages as well as clickable links to new pages, called hyperlinks.
- To know that websites should be informative and interactive.

GOLCAR GOALS YEAR 4

SKILLS SHOWCASE: HTML

Key Skills

- Exploring the HTML on a web page.
- Remixing existing code.
- Translating HTML into text and images.
- Identifying HTML tags.
- Altering HTML on a live web page.
- Replacing images on a web page.
- Recognising that information on the internet might not be true or correct and that some sources are more trustworthy than others.

Key Knowledge

- Identify examples of html tags.
- What changing the html does to alter the appearance of an object on the web.
- Copyright means that those images are protected and to understand that people should use a 'creative commons' image search if they wish to use images from the internet.
- What fake news is and ways to spot websites that carry this type of misinformation.
- What the inspect tool is and ways of using it to explore and alter text and images.

PROGRAMMING: COMPUTATIONAL THINKING

Key Skills

- Using decomposition to solve a problem by finding out what code was used.
- Using decomposition to understand the purpose of a script of code.
- Identifying patterns through unplugged activities.
- Using past experiences to help solve new problems.
- Using abstraction to identify the important parts when completing both plugged and unplugged activities.
- Creating algorithms for a specific purpose.
- Using abstraction and pattern recognition to modify code.

Key Knowledge

- Combining computational thinking skills can help solve a problem.
- Pattern recognition means identifying patterns to help them work out how the code works.
- Algorithms can be used for several purposes, e.g. animation, game design, etc.

DATA HANDLING

Key Skills

- Using tablets or digital cameras to film a weather forecast.
- Understanding that weather stations use sensors to gather and record data that predicts the weather.
- Using keywords to effectively search for information on the internet.
- Searching the internet for data.
- Designing a device that gathers and records sensor data.
- Recording data in a spreadsheet independently.
- Sorting data in a spreadsheet to compare using the 'sort by...' option.
- Understanding that data is used to forecast weather.

Key Knowledge

- To know that computers can use different forms of input to sense the world around them so that they can record and respond to data ('sensor data').
- To know that a weather machine is an automated machine that respond to sensor data.
- To understand that weather forecasters use specific language, expression and pre-prepared scripts to help create weather forecast films.

GOLCAR GOALS YEAR 4

Self-Image and Identity.

- I can explain how my online identity can be different to my offline identity.
- I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.
- I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this.

Online Relationships

- I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms)
- I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.
- I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs.

Online Reputation

- I can describe how to find out information about others by searching online.
- I can explain ways that some of the information about anyone online could have been created, copied or shared by others.

Online Bullying

- I can recognise when someone is upset, hurt or angry online.
- I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).
- I can explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation).

Managing Online Information

- 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 describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy
- I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online.
- I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.

Health, Wellbeing and Lifestyle

- I can explain how using technology can be a distraction from other things, in both a positive and negative way.
- I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time.

Privacy and Security

- I can describe strategies for keeping personal information private, depending on context.
- I can explain that internet use is never fully private and is monitored, e.g. adult supervision.
- I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure.
- I know what the digital age of consent is and the impact this has on online services asking for consent.

Copyright and Ownership

- 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 of content which I must not use without permission from the owner, e.g. videos, music, images.

YEAR 4 KEY VOCABULARY

Unit	
Computing systems and networks: Collaborative learning	animations, average , bar chart, collaboration , comment, contribution , data, edited , email account, format , freeze , icon, images, insert , link, multiple choice , numerical data, pie chart, presentations , resolved , reviewing comments , share, slides , software, spreadsheets , suggestions , survey, teamwork, themes, transitions
Programming 1: Further coding with Scratch	code block, conditional statement , coordinates , decompose, feature , information, negative number , orientation , position , program, project, script , sprite, stage , tinker, variable
Creating media: Website design	assessment , audience , collaboration, content, contribution, create, design , embed , evaluate, features, hyperlinks , images, insert, online, plan, progress , review, web page , website, World Wide Web (Google version add in: checkboxlist , Google Sites , hobby , homepage , published , record, style , subpage , tab , theme) (Microsoft version add in: design view , information, Microsoft Sway , stack , storyline view , style , transform , web browser)
Skills showcase: HTML	code, content, copyright, CSS , end tag , fake news, hacker , heading , HTML , HTML tags , internet browser, paragraph , remixing , start tag , text, unplugged, URL , web page , web page elements
Programming 2: Computational thinking	abstraction, algorithm, code, computational thinking , decomposition, input, logical reasoning , output, pattern recognition , script, sequence, variable
Data handling: Investigating weather	accurate, climate zone , condensation , cylinder , degrees Celsius , evaporation , extreme weather, filming , forecast , heat sensor , lightning , measurement, pinwheel , presenter , rain, satellite, script , sensor data , solar panel , temperature, thermometer, tornado , weather, weather forecast , wind speed
Online safety	accuracy , ad, advantage , advertisement, belief , bot, computer, disadvantage, distraction , fact, hashtag , implications , in-app purchases , influencer , opinion, program, recommendation , reliable, risk, screen time , search results , snippets , sponsored , trustworthy

GOLCAR GOALS YEAR 5

COMPUTER SYSTEMS AND NETWORKS

Key Skills

- Developing searching skills to help find relevant information on the internet.
- Learning how to use search engines effectively to find information, focus on keyword searches and evaluate search returns.
- Learn about different forms of communication that have developed with the use of technology.
- Recognising that information on the Internet might not be true or correct and learning ways of checking validity.

Key Knowledge

- How search engines work.
- Anyone can create a website; therefore, people should take steps to check the validity of websites.
- Web crawlers are computer programs that crawl through the internet.
- What copyright is

PROGRAMMING

Key Skills

- Predicting how software will work based on previous experience.
- Writing more complex algorithms for a purpose.
- 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.
- Amending code within a live scenario.
- Using logical thinking to explore software more independently, making predictions based on their previous experience.
- Using a software programme (Scratch) to create music.
- Identify ways to improve and edit programs, videos, images etc.

Key Knowledge

- That a soundtrack is music for a film/video and that one way of composing these is on programming software.
- Loops can make the process of writing music simpler and more effective.
- How to adapt their music while performing.

DATA HANDLING

Key Skills

- Learning that a separate computer can program external devices.
- Recognising how the size of RAM affects the processing of data.
- Learning the vocabulary associated with data: data and transmit.
- Recognising that computers transfer data in binary and understanding simple binary addition.
- Relating binary signals (Boolean) to the simple character-based language, ASCII.
- Learning that messages can be sent by binary code, reading binary up to eight characters and carrying out binary calculations.
- Understanding how data is collected in remote or dangerous places.
- Understanding how data might be used to tell us about a location.
- Learn about different forms of communication

Key Knowledge

- Mars Rover is a motor vehicle that collects data from space by 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.

GOLCAR GOALS YEAR 5

PROGRAMMING 2

Key Skills

- 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.
- Use a range of programming commands.
- Use repetition within a program.
- Use logical thinking to explore software more independently, making predictions based on their previous experience.
- Identify ways to improve and edit programs, videos, images etc.

Key Knowledge

- 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).

DATA HANDLING

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.

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).

CREATING MEDIA

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.

Key Knowledge

- Decomposition of an idea is important when creating stop-motion animations.
- Stop-motion animation is filmed one frame at a time using models and with tiny changes between each photograph.
- Editing is an important feature of making and improving a stop-motion animation.

GOLCAR GOALS YEAR 5

Self-Image and Identity.

- I can explain how identity online can be copied, modified or altered.
- I can demonstrate how to make responsible choices about having an online identity, depending on context.

Online Relationships

- I can give examples of technology-specific forms of communication (e.g. emojis, memes and GIFs).
- I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault.
- I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups).
- I can explain how someone can get help if they are having problems and identify when to tell a trusted adult.

Online Reputation

- I can search for information about an individual online and summarise the information found.
- I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect

Online Bullying

- I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences.
- I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying.
- I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult.
- I can identify a range of ways to report concerns and access support both in school and at home about online bullying

Managing Online Information

- I can explain the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. I can explain how some technology can limit the information I am presented with.
- I can explain what is meant by 'being sceptical'; I can give examples of when and why it is important to be 'sceptical'.
- I can evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results.
- I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence.

Health, Wellbeing and Lifestyle

- I can describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively.
- I can describe some strategies, tips or advice to promote health and wellbeing with regards to technology.
- I recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals.
- I can explain how and why some apps and games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing.

Privacy and Security

- I can explain what a strong password is and demonstrate how to create one.
- I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.
- I can explain what app permissions are and can give some examples.

Copyright and Ownership

- 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 and know how this content can be found online.

YEAR 5 KEY VOCABULARY

Unit	
Computing systems and networks: Search engines	algorithm, appropriate, copyright, correct, credit, data leak, deceive, fair, fake, inappropriate, incorrect, index, information, keywords, network, privacy, rank, real, search engine, TASK, web crawler, website
Programming 1: Music	beat, bugs, coding, command, debug, decompose, error, instructions, loop, melody, mindmap, music, output, performance, pitch, plan, play, predict, programming, repeat, rhythm, scratch, soundtrack, spacing, tempo, timbre, tinker, tutorials, typing
Data handling: Mars Rover 1	8-bit binary, addition, ASCII, binary code, boolean, byte, CPU, data, data transmission, decimal numbers, discovery, distance, Hexadecimal, input, Mars Rover, the Moon, numerical data, output, planet, radio signal, RAM, scientist, sequence, signal, simulation, space, subtraction,
Programming 2: Micro:bit	algorithm, animation, app, blocks, bluetooth, code block, connection, create, debug, decompose, designing, desktop, device, download, images, input, instructions, laptop, load, loop, Micro:bit, outputs, pairing, pedometer, polling, predict, program, repetition, reset, sabotage, scoreboard, screen, systematic, tablet, tinkering, USB, variables, wifi, wireless, wires
Creating media: Stop motion	animation, animator, background, character, decomposition, design, edit, evaluate, flip book, fluid movement, frames, model, moving images, still images, storyboard, thaumatrope, zoetrope (Option 1 add in: digital device, onion skinning, stop motion) (Option 2 add in: effects, photos, script)
Skills showcase: Mars Rover 2	3D, algorithm, binary image, CAD, compression, CPU, data, drag and drop, "Fetch, decode, execute", ID card, input, JPEG, memory, online community, operating system, output, pixels, RAM, responsible, RGB, ROM, safe
Online safety	accurate, advice, app, application, app permissions, biography, bullying, communication, emojis, health, in-app purchases, information, judgement, meme, mental health, mindfulness, negative contribution, online, online communication, opinion, organisation, password, personal information, positive contribution, real world, strong password, summarise, support, trusted adult, well-being

GOLCAR GOALS YEAR 6

PROGRAMMING

Key Skills

- Decomposing a program into an algorithm.
- Writing increasingly complex algorithms for a purpose.
- Debugging quickly and effectively to make a program more efficient.
- Remixing existing code to explore a problem.
- Using and adapting nested loops.
- Programming using the language Python.
- Changing a program to personalise it.
- Evaluating code to understand its purpose.
- Using logical thinking to explore software independently, iterating ideas and testing continuously.

Key Knowledge

- To know that there are text-based programming languages such as Logo and Python.
- To know that nested loops are loops inside of loops.
- To understand the use of random numbers and remix Python code.

HANDLING DATA

Key Skills

- Understanding and identifying barcodes, QR codes and RFID.
- Identifying devices and applications that can scan or read barcodes, QR codes and RFID.
- Understanding how barcodes, QR codes and RFID work.
- Gathering and analysing data in real time.
- Creating formulas and sorting data within spreadsheets.
- Learning how 'big data' can be used to solve a problem or improve efficiency.

Key Knowledge

- 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.

COMPUTER SYSTEMS AND NETWORKS

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 the understanding of historic computers to design a computer of the future.
- Planning, recording and editing an audio recording.
- Creating and editing sound recordings for a specific purpose.

Key Knowledge

- The importance of having a secure password and what brute force hacking is.
- The first computers were created at Bletchley Park to crack the Enigma code to help the war effort in World War 2.
- About some of the historical figures that contributed to technological advances in computing.
- What techniques are required to create a presentation using appropriate software.
- Sound clips can be recorded using sound recording software.
- Sound clips can be edited and trimmed.

GOLCAR GOALS YEAR 6

COMPUTING AND NETWORK SYSTEMS

Key Skills

- Identify different types of AI and their applications in everyday life.
- Exploring text-based and image-based AI tools to understand how they generate content.
- Applying coding skills like decomposition and pattern recognition to interact with AI applications.
- Analysing the effectiveness of prompts and refining them for improved AI outputs.
- Exploring ethical considerations around AI use and its impact on society.

Key Knowledge

- AI is artificial intelligence and is used in everyday life.
- AI is trained on data to recognise patterns and generate outputs.
- AI can be used to generate written content.
- AI can be used to create visual content like pictures.
- AI can help generate basic HTML code to create the structure and layout of a website.
- There are ethical issues surrounding AI, including data privacy, bias and responsible use.

DATA HANDLING

Key Skills

- Understanding how corruption can happen within data during transfer (for example when downloading, installing, copying and updating files).
- Understanding that computer networks provide multiple services.
- Using search and word processing skills to create a presentation.
- Creating formulas and sorting data within spreadsheets.
- Learning about the Internet of Things and how it has led to 'big data'.
- Learning how 'big data' can be used to solve a problem or improve efficiency.

Key Knowledge

- To know that data can become corrupted within a network but this is less likely to happen if it is sent in 'packets'.
- To know that devices or that are not updated are most vulnerable to hackers.
- To know the difference between mobile data and WiFi.

SKILLS SHOWCASE

Key Skills

- 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 logical thinking to explore software independently, iterating ideas and testing continuously.
- Creating and editing videos, adding multiple elements: music, voiceover, sound, text and transitions.
- Using design software Tinkercad to design a product. Creating a website with embedded links and multiple pages. Understanding how search engines work. Using search engines safely and effectively.

Key Knowledge

- What designing an electronic product involves.
- Which programming software/language is best to achieve a purpose.
- The building blocks of computational thinking, for example, sequence, selection, repetition, variables and inputs and outputs.

GOLCAR GOALS YEAR 6

Self-Image and Identity.

- I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.
- I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline.
- I can explain the importance of asking until I get the help needed.

Online Relationships

- I can explain how sharing something online may have an impact either positively or negatively
- I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not.
- I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs.
- I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.

Online Reputation

- I can explain the ways in which anyone can develop a positive online reputation.
- I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.

Online Bullying

- I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me.
- I can explain how someone would report online bullying in different contexts.

Managing Online Information

- I can explain how search engines work and how results are selected and ranked.
- I can explain how to use search technologies effectively.
- I can describe how some online information can be opinion and can offer examples.
- I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal.

Health, Wellbeing and Lifestyle

- I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.
- I recognise and can discuss the pressures that technology can place on someone and how / when they could manage this.
- I can recognise features of persuasive design and how they are used to keep users engaged (current and future use).
- I can assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise).

Privacy and Security

- I can describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser).
- I can explain what to do if a password is shared, lost or stolen
- I can describe how and why people should keep their software and apps up to date, e.g. auto updates.
- I can describe simple ways to increase privacy on apps and services that provide privacy settings.

Copyright and Ownership

- 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 make references to and acknowledge sources I have used from the internet.

YEAR 6 KEY VOCABULARY

Unit	
Computing systems and networks: Bletchley Park and the history of computers	acrostic code, audio advert, brute force hacking, Caesar cipher, chip and PIN system, cipher, combination, date shift cipher, discovery, invention, Nth Letter Cipher, password, pigpen cipher, scrambled, script, secret, secure, technological advancement, trial and error
Computing systems and networks: Exploring AI	AI, AI generated image, AI generated text, algorithm, applications, argument, authenticity, code, considerations, debate, ethical, fake, generate, HTML, image, implications, instructions, learn, modify, output, patterns, prompt, rebuttal, replace, refine, response, task, trained and webpage.
Data handling 1: Big data 1	algorithm, barcode, boolean, brand, chip, commuter, contactless, data, encrypt, infrared, proximity, QR code, QR scanner, radio waves, RFID, signal, spreadsheet, systems analyst, transmission, wireless
Programming: Introduction to Python	algorithm, code, command, design, import, indentation, input, instructions, loop, output, patterns, random, remix, repeat, shape
Data handling 2: Big data 2	Big Data, bluetooth, corrupted, data, energy, GPS, improve, infrared, Internet of Things, personal, privacy, QR codes, revolution, RFID, SIM, simulation, Smart city, Smart school, stop motion, threat, wifi, wireless
Skills showcase: Inventing a product	abstraction, adapt, advert, algorithm, bug, code, coding, debug, design, edit, electronic, evaluate, image rights, images, information, input, loop, output, photos, product, program, repetition, screenshot, selection, sequence, software, structure, variable, video, website
Online safety	anonymity, antivirus, biometrics, block, consent, digital footprint, digital personality, financial information, hacking, inappropriate, malware, online bullying, online reputation, password, personal information, phishing, privacy settings, private, reliable source, report, respect, scammers, screengrab, screenshot, secure, selfie, software updates, two-factor authentication, URL, username

IMPACT MEASURES

- We know learning has been successful in this subject area because:
- Pupil voice demonstrates high levels of engagement and enthusiasm for Computing lessons. Pupils report that they enjoy the challenges and creative opportunities that Computing offers.
- Our online safety audits reveal increased awareness and usage of safe internet practices among pupils, with a notable reduction in incidents related to inappropriate online behaviour.
- Our assessment data indicates that pupils make good progress in their Computing knowledge and skills, with the vast majority achieving age-related expectations by the end of each key stage.
- Parents express satisfaction with our Computing programme, noting increased conversations about technology at home and greater confidence in internet use among their children.

In conclusion, our commitment to delivering a high-quality Computing education is reflected in our pupils' achievements, their enthusiasm for learning, and their preparedness for the digital future.