Computing Progression of Knowledge, Skills and Vocabulary

Computer Science			
	Knowledge	**Skills**	**Vocabulary**
Year 1	• I know and can tell you what an algorithm is • I know that a program is a precise set of instructions	• plan a simple algorithm • give and follow commands, which include straight/turning commands (one at a time) • debug a simple algorithm that is causing an expected outcome • break an algorithm down into smaller parts (decomposing/chunking) • predict if a simple algorithm will work	**Algorithm** **Debug** **Program**
Year 2	• I know that computers need precise instructions • I know programs need an event to begin • I know what an event is	• Debug a program independently that has caused an unexpected outcome • give and follow commands, which include straight/turning commands (several in order) • plan using logical reasoning to predict outcomes • create a program that contains several commands for a device or software program • use different events to start my programs – timing/on click/on button press	**Algorithm** **Debug** **Program** **Events**
Year 3	• I know that a sequence is a list of instructions in a particular order • I know that if I change the sequence, I may change the outcome of the program	• Use and edit a pre-written program to achieve a specific outcome • Detect and debug errors in algorithms and programs • Use logical reason to predict what will happen next • Solve problems by decomposing them into smaller parts • Write a program to reproduce to complete an algorithm • Predict how a change in a sequence may impact on the outcome of a program	**Algorithm** **Debug** **Program** **Event** **Sequence** **Detect** **Error** **Edit**
Year 4	• I know that a 'loop' is used to repeat a set of instructions	• Demonstrate the loop/repeat command in more than one programming environments (2code/scratchJr/scratch/kodable)	**Algorithm** **Debug** **Program**

		• Transfer my coding skills between software • Use sequence and loops (repetition) in programs confidently • Detect and debug errors in algorithms and programs • Independently select and sequence code to make my own program • Explain the imp0ortance of using 'loops' in a particular place in my sequence •	**Event** **Sequence** **Error** **Detect** **Loop** **Repeat**
Year 5	• I know and can tell you what selection is	• Detect and debug errors in more complex algorithms and programs • Plan and write an algorithm using commands, sequence, selection, 'if…then' (conditional statement) and repetition • Use command within a series of commands – procedures (know what a procedure is) • Use selection to create games in which the user must make a choice • Use my skills and understanding of selection in more than 2 programs	**Algorithm** **Debug** **Program** **Event** **Sequence** **Detect** **Error** **Loop** **Repeat** **Conditional** **Selection** **Command** **Procedures**
Year 6	• I know that there are many other programming languages such as C+, C#, java, Python and Ruby • I know and can explain what a variable is	• Confidently break a problem down and methodically create a program to solve it, test it and adapt it as I go • Confidently use selection, loops, variables and events • Use a variable in a variety of programming software (2simple/2code/scratch/kodable) • Evaluate the effectiveness of my programming and suggest improvement • Begin to use Python or Ruby (*children working at GD)	**Algorithm** **Debug** **Program** **Event** **Sequence** **Detect** **Error** **Loop** **Repeat** **Conditional** **Selection** **Command** **Procedures**

			Variables **Java** **C+** **C#** **Python*** **Ruby***
Digital Citezenship			
	Knowledge	Skills	Vocabulary
Year 1	• If something happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how I can speak to an adult • I can explain rules to keep us safe when using technology both in and beyond home • I can talk about my digital footprint • I can recognise that there may be people online that could make me feel sad, embarrassed or upset • I can explain why it is important to be considerate and kind to people online and respect their choices • I can recognise that information can stay online and be copied	• Give examples of when I should ask permission to do something online and why this is important • Describe how to behave online in ways that do not upset others and give examples of this	**Online** **Offline** **Safety** **Digital footprint** **Internet** **Search** **Embarrassed** **Password** **Username** **Avatar**
Year 2	• I can talk about my digital footprint and explain how other people may look and act differently online and offline	• Give examples of issues online that might make me feel sad, worried, uncomfortable or frightened • Give examples of how I can get help if I felt this way • Give examples of bullying behaviour and how it might look online	**Online** **Offline** **Safety** **Digital footprint** **Internet**

	• I can explain simple guidance for using technology in different environments • I can give examples of how someone might use technology to communicate with other's they don't also know offline and why this might be risky • I can explain why I have a right to say 'no' or 'I will have to ask someone' • I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online • I ca explain how information put online about me can last for a long time • I can explain what bullying is, how people may bully others and how bullying can make someone feel		**Search** **Embarrassed** **Password** **Username** **Avatar** **Environment** **Communication** **Guidance** **Acceptable**
Year 3	• 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 what is meant by 'trusting someone online' and why this is different from 'liking someone online' and why it's important to be careful about who I trust online including information and content they are trusted with	• Use technology safely, respectfully, responsibly and be able to talk about my digital footprint • Give examples of what anyone may or may not be willing to share about themselves online	**Internet** **Search** **Embarrassed** **Unique Password** **Unique Username** **Avatar** **Environment** **Communication** **Guidance** **Acceptable** **Personal** **Private** **Respectful**

	• I can explain how someone's feelings can be hurt by what is said or written online • I can explain the need to be careful before sharing anything personal • I can describe ways that some people can be unkind online • I can offer examples of how this can make people feel • I can explain why spending too much time using technology can sometimes have a negative impact		**Identity** **Image (self & visual)**
Year 4	• I can explain how using technology can be a distraction from other things, in both a negative and positive way • I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this • I can give examples of how to be respectful to others online and describe healthy and unhealthy online behaviours • I can explain how content shared online may feel unimportant to one person but may be important to other peoples thoughts and beliefs • I can explain ways people can be bullied through a range of	• Demonstrate how my online identity can be different to my offline identity and be able to talk about my digital footprint • Find out information about others by searching online	**Internet** **Search** **Embarrassed** **Unique Password** **Unique Username** **Avatar** **Environment** **Communication** **Guidance** **Acceptable** **Personal** **Private** **Respectful** **Identity** **Image (self & visual)** **Unhealthy** **Content** **Information** **Account Information**

	media (image, video, text and chat) • I can explain why people need to think carefully about how the content they post might affect others their feelings and how it may affect how others feel about them (their reputation)		
Year 5	• I can describe ways that information about anyone online can be used by others to make judgements about an individual and why these may be incorrect • I can talk about my digital footprint and demonstrate responsible choices about my online identity, depending on context • I can explain how identity online can be copied, modified or altered • I can explain how someone can get help if they are having problems and identify when to tell a trusted adult • I can describe the helpline services which can help people experiencing bullying and how to access them (childline/CEOP/The Mix) • I can describe ways technology can affect health and well-being both positively (mindfulness) and negatively	• Use strategies, tips and advice to promote health and well-being with regards to technology • Recognise online bullying can be different to bullying in the physical world and describe some of those differences • 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	**Internet** **Search** **Embarrassed** **Unique Password** **Unique Username** **Avatar** **Environment** **Communication** **Guidance** **Acceptable** **Personal** **Private** **Respectful** **Identity** **Image (self & visual)** **Unhealthy** **Content** **Information** **Account Information** **Mindful** **Mental Well-being** **CEOP** **apps**

Year 6	• I can talk about my digital footprint and the importance of asking for until I get the help needed • I can describe issues online that could make people feel sad, worried, uncomfortable or frightened • I can explain how sharing something online may have a positive or negative impact • 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 tem if others do not • I can describe how to capture bullying content as evidence to share with others who can help me • I can describe common systems that regulate age-related content (PEGI/BBFC/parental warnings) and describe their purpose	• 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 • Assess and action different strategies to limit the impact of technology on health • Give examples of how to get help online as well as offline • Demonstrate strategies that anyone can use to protect the 'digital personality' and online reputation, including degrees of anonymity	**Internet** **Search** **Embarrassed** **Unique Password** **Unique Username** **Avatar** **Environment** **Communication** **Guidance** **Acceptable** **Personal** **Private** **Respectful** **Identity** **Image (self & visual)** **Unhealthy** **Content** **Information** **Account Information** **Mindful** **Mental Well-being** **CEOP** **Apps** **PEGI** **BBFC**

Digital Literacy			
	Knowledge	**Skills**	**Vocabulary**
Year 1	• I am aware of different digital literacy software I can use and their capabilities	• Type simple sentences using the correct format • Independently use a digital camera	**Digital Literacy** **Keyboard Keys** **Word processing** **Sentences**

		• Input text and images using a simple publishing programme • Alter my writing in a number of ways (size, font, colour etc) • Tell you the main keys for writing (space bar, full stop, shift etc) • Use buttons within a programme to make text bold/italic/text alignment • Move to different places in the text using the arrow keys or mouse • Use the undo icon to fix a mistake • Create a pictogram by entering data into a simple graphing package • Use a pictogram to answer simple questions • Explore sounds in a music programme or sound app	**Punctuation** **Caps Lock** **Shift** **Space bar** **Document** **Cursor** **Insert** **Formatting** **Abstraction**
Year 2	• I am aware of different digital literacy software I can use and their capabilities • I know how to save an image from the internet rather than using copy and paste • Explain what digital communication is	• Add a page border to a document • Arrange clips to make a short film that conveys meaning • Plan a simple Y/N tree diagram to sort information e.g. 2Question • Create and search a branching database • Start to use simple keyboard shortcuts Ctrl + B, I, U to edit my text style • Use spell checker to check my work • Use the undo icon to fix a mistake • Use the return and enter key to insert relevant line breaks • Insert a basic table • Say which page orientation would best suit my work	**Digital Literacy** **Word processing** **Document** **Punctuation – question and exclamation marks** **Caps Lock** **Shift** **Space bar** **Table** **Row/column** **Border** **Cursor** **Insert** **Formatting** **Abstraction**

		• Use a range of ICT devices to create a sequence of sounds • Use a digital video camera to capture film and images • Add simple titles and credits • Use a database to answer simple questions • Search a database to find information • Use ICT to support handling data – creating simple graphs, bar charts and pie charts	
Year 3	• I am aware of different digital literacy software I can use and their capabilities • I can explain the difference between save and save as	• Use cut, copy and paste to reorder text • Use simple keyboard shortcuts e.g. Ctrl + V, X, C to re-order text. • Format wrapping/layout of text boxes and images in word • Use a variety of table tools (merge cells, fill etc.) • Create a new eBook with a front cover and add or remove pages. • Combine still/moving images in a show to create stop-motion animation/movies on a range of devices. • Type a number of sentences using the keyboard • Use tab to indent paragraphs • Use columns • Use bullet points, speech bubbles, auto shapes and text boxes • Format images - move, rotate and re-size shapes using an object-based graphics package	**Digital Literacy** **Word processing** **Document** **Punctuation – question and exclamation marks** **Caps Lock** **Shift** **Space bar** **Table** **Row/column** **Border** **Cursor** **Insert** **Formatting** **Abstraction** **Layout** **Audience** **Appropriate** **Relevant** **Background** **Animation** **Transition** **Keyboard shortcut**

		• Use the format tab to alter word art to enhance my work. • Create a folder to save my work in. • Give a file a name to identify it • Search and use a branching database to identify objects • Create a multimedia presentation / eBook incorporating images, sounds and text using a multimedia package / apps or online program. • Edit pictures using various tools in paint or photo-manipulation software • Create a simple musical composition combining electronic and live sounds • Add suitable sound effects and tracks	
Year 4	• I am aware of different digital literacy software I can use and their capabilities. • I can explain why I have chosen my layout and formatting • I can think about whether my work is suitable for the audience • I can decide on the most appropriate form of graph for a data set giving reasons for my choice.	• I can extend the use of multimedia packages to include importing images, hyperlinks and the use of sounds recorded independently • Effectively plan for an animation or film and use purposefully • Move items within a short film clip / animation to create movement on playback • Search and use a branching database to identify objects • Create my own branching database • Change data to answer "what if…?" questions • Interpret graphs of data collected from sensors • Select appropriate tools to add emphasis and effect to my work • Review and edit my work and talk about the changes I made	**Digital Literacy** **Word processing** **Document** **Punctuation – question and exclamation marks** **Caps Lock** **Shift** **Space bar** **Table** **Row/column** **Border** **Cursor** **Insert** **Formatting** **Abstraction** **Layout** **Audience** **Appropriate** **Relevant** **Background** **Animation**

		• Edit the colour, text and merge digital photographs using arrange of devices e.g. Skitch, Microsoft image tools, collage apps… • Storyboard a short film clip / animation - what would happen and when • Take a series of pictures to form an a short film clip / animation /eBook • Use a mobile device to film a short clip • Save images at stages to compare my work and talk about the changes • Discuss and compare film for effect on audience • Edit video, animation or music footage by cropping clips • Choose appropriate scene transitions • Enter a basic mathematical formula into Excel • Change the look of a spreadsheet by using different formats e.g. text styles, colour, number format inc, currency and date, row and column heights • Insert and delete columns and rows in a spreadsheet • Use SUM to calculate the total of a set of numbers in a range of cells • Use spreadsheets to create a graph	**Transition** **Keyboard shortcut** **Spreadsheet** **Formula** **SUM** **Sort** **AutoSum** **Filter**
Year 5	• I am aware of different digital literacy software I can use and their capabilities • I can discuss and compare film for effect on audience • I can explain why I have chosen my layout and formatting • I can think about whether my work is suitable for the audience	• Evaluate and improve my finished designs • Evaluate multimedia pages, such as Wiki entries, websites and blogs, and recognise the features of good page design and how it is suited to an audience • Review and add to, replace and edit clips to make messages clearer	**Digital Literacy** **Word processing** **Document** **Punctuation – question and exclamation marks** **Caps Lock** **Shift** **Space bar** **Table**

	• I can explain my choice of clips, effects and structure in resources I have created	• Export / embed a video in different formats for different purposes • Decide on the most appropriate form of graph for a data set giving reasons for my choice • Interpret graphs of data collected from a variety of sources • Select appropriate tools to add emphasis and effect to my work • Review and edit my work and talk about the changes I made • Draft and redraft my written work by deleting, inserting and replacing text to improve clarity and create mood • Design a 3D model using ICT to meet a specific goal, e.g. 2Design & Make • Use a mobile device to film a short clip • Consider the effect of camera angles, light and shadow when filming • Add titles, credits, transitions and special effects • Create a database structure of my own and enter the data • Prepare a data collection form and collect quality information • Use spreadsheets to create a graph	**Row/column** **Border** **Cursor** **Insert** **Formatting** **Abstraction** **Layout** **Audience** **Appropriate** **Relevant** **Background** **Animation** **Transition** **Keyboard shortcut** **Spreadsheet** **Formula** **SUM** **Sort** **AutoSum** **Filter** **Record** **Field** **Database**
Year 6	• I am aware of different digital literacy software I can use and their capabilities • I can discuss and compare film for effect on audience • I can explain my choice of clips, effects and structure in resources I have created • I can explain why I have chosen my layout and formatting	• Consider whether my work is suitable for the audience • Interpret graphs of data collected from a variety of sources • Choose, select and use a combination of software to present my work • Select appropriate tools to add emphasis and effect to my work	**Digital Literacy** **Word processing** **Document** **Punctuation** **Caps Lock** **Shift** **Space bar** **Table** **Row/column** **Border**

		• Review and edit my work and talk about the changes I made • Draft and redraft my work by deleting, inserting and replacing text **<u>Creativity</u>** • Review and add to, replace and edit clips to make messages clearer • Export / embed a video in different formats for different purposes • Use a mobile device to film a short clip • Consider the effect of camera angles, light and shadow when filming • Add titles, credits, transitions and special effects	**Cursor** **Insert** **Formatting** **Abstraction** **Layout** **Audience** **Appropriate** **Relevant** **Background** **Animation** **Transition** **Keyboard shortcut** **Spreadsheet** **Formula** **SUM** **Sort** **AutoSum** **Filter** **Record** **Field** **Database** **Data**
Information Technology			
	Knowledge	Skills	Vocabulary
Year 1	• I can explain why I should always ask a trusted adult before I share any information about myself online • I can explain how passwords can be used to protect information and devices. • I can explain why work I create using technology belongs to me.	• Save my work (Purplemash/school network) so that others know it belongs to me (e.g. filename, name on content) • Identify a browser and can use the internet to find things out • Use simple keywords in search engines • Describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable worried or frightened	**Internet** **Information** **Device** **Mouse** **Monitor** **Keyboard** **Save** **World Wide Web** **Communication** **Online Information**

	• I know what a browser is and how to open one	• Recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school) • Say why it belongs to me (e.g. 'it is my idea' or 'I designed it') • Identify icons on the desktop and launch accordingly • Use online resources – Britannica/Google maps & earth to conduct research & find information • I can log on and off the school network using my individual username and password	**Privacy** **Username** **Password** **Security**
Year 2	• I can explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, and Siri) • I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real' • I can explain why some information I find online may not be true • I can describe how online information about me could be seen by others • I can describe and explain some rules for keeping my information private • I can explain what passwords are and can use passwords for my accounts and devices • I can explain the difference between my school network set up to my home computer set up • I know the difference between physical, wireless and mobile networks.	• Use a variety of sources to find, sort and select information appropriate to my class work including using the internet • Refine my searches to limit search results using an internet search engine • Use keywords in search engines • Demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections) • Explain how many devices in my home could be connected to the internet and can list some of those devices • Describe why other people's work belongs to them • Recognise that content on the internet may belong to other people. • I can log on and off the school network using my individual username and password and save my work to Purplemash or the school network	**Internet** **Information** **Device** **Mouse** **Monitor** **Keyboard** **Save** **World Wide Web** **Communication** **Online Information** **Privacy** **Username** **Password** **Security** **Collaboration** **Ownership** **Copyright**

Year 3	• I can describe how connected devices can collect and share my information with others • I can explain why copying someone else's work from the internet without permission can cause problems • I understand file extensions and which ones attribute to different ICT products - .doc .xls .ppt .pub .pdf .mp3 .mp4 .wmf • 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' • I can give reasons why I should only share information with people I choose to and can trust • I can explain that if I am not sure or I feel pressured, I should ask a trusted adult • I understand and can give reasons why passwords are important • I can describe simple strategies for creating and keeping passwords private	• Independently open and save work to my own network folder • Use key phrases in search engines • Give examples of what those problems might be • Create a folder to save my work in • Give a file a name to identify it • Communicate using a range of online resources (blogs, email) • Read and respond to e-mails • I can send an e-mail using an address book • Send a group email • Add an attachment to an e-mail • Download and attachment from an email	**Internet** **Information** **Device** **Mouse** **Monitor** **Keyboard** **Save** **World Wide Web** **Communication** **Online Information** **Privacy** **Username** **Password** **Security** **Collaboration** **Ownership** **Copyright** **Information Technology** **Computer Networks**
Year 4	• I explain file extensions and which ones attribute to different ICT products- .zip • I can describe what an ISP is • I can describe what a URL (web address) is • I can explain domain name types - .ac. uk .gov .sch • I understand what criteria have to be met before something is a 'fact'	• 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 • Discuss what it means to save work locally, to a network or to a 'Cloud' based programme • Analyse information and differentiate between 'opinions', 'beliefs' and 'facts' • Suggest reasons why they might do this	**Internet** **Information** **Device** **Mouse** **Monitor** **Keyboard** **Save** **World Wide Web** **Communication**

	• I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites) • 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 that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people • I can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true • I can explain what a strong password is • I can describe strategies for keeping my personal information private, depending on context • I can explain that others online can pretend to be me or other people, including my friends • I can explain how internet use can be monitored • I understand that there are multiple platforms and the differences between these e.g. Windows / Apple / Android	• Talk about advantages and disadvantages of using the computer • Identify the most relevant results from a search engine – not just 'sponsored' links • Independently open and save work to my own network folder • Create a folder to save my work in • Give a file a name to identify it	**Online Information** **Privacy** **Username** **Password** **Security** **Collaboration** **Ownership** **Copyright** **Information Technology** **Computer Networks** **Evaluate**
Year 5	• I know what an operating system is and why it important • I can explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence • I understand the difference between online mis-information (inaccurate	• Recognise that piracy online affects artists and creative industries • Identify the key internal parts of a computer – RAM, memory, processor, motherboard • Describe what each part does • Use different search technologies	**Internet** **Information** **Device** **Mouse** **Monitor** **Keyboard** **Save**

	information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead) • 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 explain what is meant by a 'hoax' • I can explain why I need to think carefully before I forward anything online • I can explain why some information I find online may not be honest, accurate or legal • I can explain why information that is on a large number of sites may still be inaccurate or untrue • I can assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose) • I can explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, and geolocation) with others • I can explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing • I understand that if I use material that is not my own, often I need to credit the source	• Evaluate digital content and can explain how I make choices from search results • Create and use strong and secure passwords • Assess and justify when it is acceptable to use the work of others • Give examples of content that is permitted to be reused • Recognise that intellectual property rights and copyright protection carry over into the online world • Identify the features of legal downloads and illegal (pirated) content	**World Wide Web** **Communication** **Online Information** **Privacy** **Username** **Password** **Security** **Ownership** **Collaboration** **Copyright** **Information Technology** **Computer Networks** **Evaluate** **Valid** **Reliable** **Mis-information** **'Hoax'** **Geolocation** **RAM** **Memory** **Processor** **Motherboard**

Year 6	• I can explain how search engines work and how results are selected and ranked • 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 • I know what to do if my password is lost or stolen • I can explain what app permissions are and can give some examples from the technology or services I use • I understand that computing has a timeline • I know about at least one computing pioneer	• Demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important • Use search technologies effectively • Use different passwords for a range of online services • Define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting'). I can identify flag and report inappropriate content • Describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories) • Describe simple ways to increase privacy on apps and services that provide privacy settings • Describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing) • Demonstrate the use of search tools to find and access online content, which can be reused by others • Demonstrate how to make references to and acknowledge sources I have used from the internet • Independently save and retrieve work from different places • Effectively research using the world wide web • Suggest what technology might look like in twenty years' time	**Internet** **Information** **Device** **Mouse** **Monitor** **Keyboard** **Save** **World Wide Web** **Communication** **Online Information** **Privacy** **Username** **Password** **Security** **Ownership** **Collaboration** **Copyright** **Information Technology** **Computer Networks** **Evaluate** **Valid** **Reliable** **Mis-information** **'Hoax'** **Geolocation** **RAM** **Memory** **Processor** **Motherboard** **Influence** **Manipulation** **Persuasion** **Scam** **Phishing**