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|  | | **Early Years** | **Key Stage 1** | | **Lower Key Stage 2** | | **Upper Key Stage 2** | |
| **Strand** | | **Reception** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **DIGITAL LITERACY (DL)** | **E-SAFETY** | Talk about staying safe on the Internet using  age appropriate e-safety resources. | Use technology safely and respectfully, keeping personal information private.  Know where to go for help and support when they have concerns about material on the internet.  (Be aware that they can talk directly to the police, report their concern to CEOP, or talk in confidence to counsellors at Childline). | Use technology safely and respectfully, keeping personal information private.  Know where to go for help and support when they have concerns about material on the internet.  (Be aware that they can talk directly to the police, report their concern to CEOP, or talk in confidence to counsellors at Childline). | Use technology safely, respectfully and responsibly.  Consider how their online actions impact upon other people.  Know a range of ways to report concerns and inappropriate behaviour (eg. CEOP, police, Childline).  Be aware of, and abide by, the school’s acceptable use policy, as well as the  requirements of any other services they use. | Use technology safely, respectfully and responsibly.  Be aware of own responsibilities when online such as keeping passwords and personal data secure.  Know a range of ways to report concerns and inappropriate behaviour  (eg. CEOP, police, Childline).  Be aware of, and abide by, the school’s acceptable use policy, as well as the  requirements of any other services they use. | Use technology safely, respectfully and responsibly.  Know a range of ways to report concerns and inappropriate behaviour, (eg. CEOP, the police, Childline).  Be aware of their legal and ethical responsibilities (eg. showing respect for intellectual property  rights, keeping passwords and personal data secure, observing the terms and conditions for web  services they use).  Develop some awareness of their digital footprint: the data automatically generated when they use the internet and other communication services, and how this is, or could be, used. | |
| **INFORMATION TECHNOLOGY (IT)** | **NETWORKS & THE INTERNET** | Gather information from a variety of digital sources.  Use IWB, computer or tablet following hyperlinks to an appropriate website/s. | Gather information from a variety of digital sources.  Use search technologies effectively. | Gather information from a variety of digital sources.  Use search technologies effectively. | Use search technologies effectively; skim and scan results to identify most relevant results. | Select, use and combine internet services.  Use search technologies effectively; skim and scan results to identify most relevant results.  Analyse information  Evaluate information  Collect data  Present data | Use search technologies effectively; skim and scan results to identify most relevant results.  (Distinguish between the main results and adverts presented as sponsored results).  Use internet searches for phrases rather than  keywords (limit searches to a particular time frame, language, reading level or website).  Evaluate digital content by considering: how trustworthy the information is (verifying it with another independent source), suitability for audience, reason for posting) | |
| **INFORMATION TECHNOLOGY (IT)** | **CREATIVITY & PRODUCTIVITY** | Complete a simple program on a computer.  Use ICT hardware to interact with age appropriate software.  Listen to stories on a range of digital hardware (eg. CD, ipod, online).  Explore the different ways digital content can be presented.  Build confidence with the use of keyboard and mouse.  Move finger on IWB screen or tablet device such as ipad or ipod to achieve different outcomes.  Write words or simple sentences with a keyboard.  With an adult, use software to make electronic books with children eg 2Create a story, Textease.  Recognise that a range of technology is used in places such as homes and schools.  Select and use technology for particular purposes.  Explore a range of real world technology and play technology. | Use technology purposefully to create  digital content.  Use technology purposefully to store  digital content.  Use technology purposefully to retrieve  digital content; (retrieve information that has been stored).  (Word-processing, creating pictures using  paint packages, working with digital photographs;  video, animations, creating online content). | Use technology purposefully to organise  digital content.  Use technology purposefully to  manipulate digital content.  (Word-processing, creating pictures using  paint packages, working with digital photographs;  video, animations, creating online content) | Use a variety of software to accomplish given goals.  Collect information,  Design and create content,  Present information.  Select, use and combine a variety of software  (including internet services) on a range of  digital devices.  Use software under the control of the teacher/adult. | Select a variety of software to accomplish  given goals.  Use software with increasing independence.  Combining software use (e.g. importing an  edited image or video into a presentation or web page).  Select, use and combine a variety of software  (including internet services) on a range of  digital devices. | Combine a variety of software and hardware to accomplish well-defined goals with a specific audience in mind.  Select, use and combine software on a range of digital devices encompassing using both fixed and mobile  Technologies.  Select software themselves (from the full range of applications installed on computers, smartphones and tablets at home or at school, or available to them via the web).  Analyse data (working with data they have generated or collected for themselves, as well as big, public datasets).  Evaluate data.  Design and create systems. | |
| **COMPUTER SCIENCE (CS)** | **CODING/PROGRAMMING** | Plan and give instructions to make things happen.  Try things out and explore what happens in real and imaginary situations using simple simulations. | Understand that an algorithm is a precisely designed set of instructions.  Use logical reasoning to predict the behaviour of simple programs; make a prediction about what the program will do  before pressing return or clicking the button.  Explain a prediction.  Create and debug simple: programs: identify what the fault is, find out which part of the code is creating the problem, and then work towards a fix. | Understand that algorithms are  implemented as programs  on digital devices.  Understand that programs execute by following precise and unambiguous  instructions.  Use logical reasoning to predict the behaviour of simple programs: make a prediction about what the program will do  before pressing return or clicking the button.  Explain a prediction logically.  Debug simple programs: identify what the fault is, find out which part of the code is creating the problem, and then work towards a fix.  Explore simulations. | Write programs that accomplish specific  goals.  Use sequence in programs.  Use simulations and explore models in order to answer 'What if ... ?' questions. to investigate and evaluate the effect of changing values.  Explain a prediction logically.  Work with various forms of input.  Work with various forms of output (sound, webcams, digital photos). | Design programs that accomplish specific  Goals.  Design and create programs.  Explain a prediction logically; explain the thinking behind their algorithms.  Debug programs that accomplish specific  goals, (create working code, and identify the steps needed to solve any problem).  Use repetition in programs (*repeat… until...*loop)  Control or simulate physical systems (sensors, motors).  Use logical reasoning to detect and correct errors in programs.  Understand how computer networks can provide multiple services, such as the World Wide Web.  Appreciate how search results are selected. | Solve problems by decomposing them into smaller parts.  Use selection in programs, (*If… then … otherwise…)*  Work with variables.  Use logical reasoning to explain how some simple algorithms work; explain the thinking behind their algorithms, talking through the steps and explaining why they’ve solved a problem the way they have.  Look at someone else’s algorithm and explain how it does what it does.  Use logical reasoning to detect and correct errors in algorithms.  Understand computer networks, including the internet.  Appreciate how search results are ranked. | |
| **COMPUTER SCIENCE** | **COMMUNICATION & COLLABORATION** | Follow recorded instructions using digital voice recorder, talking postcards, talking pegs or talking tins.  Record an instruction using voice recording devices for their friends.  Record and play back singing, stories and  instructions using a digital voice recorder, talking postcards or talking tins.  Use toy phones or walkie talkies to communicate, and talk about how they can use them effectively.  Work collaboratively using  Bee-bots or other  electronic toys.  Explore appropriate software together on computers, touch devices or interactive whiteboard. | Understand the opportunities computer  networks offer for communication.  Work collaboratively using  Bee-bots or other  electronic toys.  Explore appropriate software together on computers, touch devices or interactive whiteboard.  Record a set of instructions using voice recording devices for their friends. | Understand the opportunities computer  networks offer for communication. | Understand the opportunities computer  networks offer for communication.  Share and exchange information in a variety of forms. | Understand the Opportunities computer  networks offer for collaboration.  Share and exchange information in a variety of forms. | Understand the opportunities computer  networks offer for collaboration.  Share and exchange information in a variety of forms. | |