**Computing Curriculum Progression – KS1**

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| **CYCLE A** | LCC Question | **How could you be the next Simone Biles?**  **(SCIENCE)** | **Which birds and plants would Little Red Riding Hood find in our park?**  **(SCIENCE)** | **Why can’t a Meerkat live in the North Pole?**  **(GEOGRAPHY)** |
| Knowledge | **Hardware/Software:** WORD, PAGES GOOGLE DOCS PIC COLLAGE, BOOK CREATOR (word processing) PIC COLLAGE, BALLOON STICKIES +, THINGLINK (presentations)  **Use technology purposefully- Word processing/presentations**   * use technology purposefully to create, organise, store, manipulate and retrieve digital content; * recognise common uses of information technology beyond school | **Hardware/Software: INTERNET**  **E-safety**   * use technology safely and respectfully, keeping personal information private. * understand the different methods of communication (e.g. email, online forums etc). * know you should only open email from a known source. * know the difference between email and communication systems such as blogs and wikis. * know that websites sometimes include pop-ups that take them away from the main site. * know that bookmarking is a way to find safe sites again quickly. * begin to evaluate websites and know that everything on the internet is not true. * know that it is not always possible to copy some text and pictures from the internet. * know that personal information should not be shared online. * know they must tell a trusted adult immediately if anyone tries to meet them via the internet. * identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | **Hardware/Software: INTERNET**  **E-safety**   * use technology safely and respectfully, keeping personal information private. * understand the different methods of communication (e.g. email, online forums etc). * know you should only open email from a known source. * know the difference between email and communication systems such as blogs and wikis. * know that websites sometimes include pop-ups that take them away from the main site. * know that bookmarking is a way to find safe sites again quickly. * begin to evaluate websites and know that everything on the internet is not true. * know that it is not always possible to copy some text and pictures from the internet. * know that personal information should not be shared online. * know they must tell a trusted adult immediately if anyone tries to meet them via the internet. * identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. |
| Skills | **Use technology purposefully - Word processing/typing**   * I can confidently type words quickly and correctly on a digital device. * I can use the space bar to make space and delete to delete letters/words. * I can make a new line using enter/return. * I can dictate into a digital device more accurately and with punctuation.   **Use technology purposefully - Presentations, web design and eBook Creation**   * I can add voice labels to an image * I can add a voice recording to a storyboard. * I can add speech bubbles to an image to show what a character thinks. * I can import images to a project from the web and camera roll. | **E-Safety: Self-Image and Identity**   * I can explain how other people’s identity online can be different to their identity in real life. * I can describe ways in which people might make themselves look different online. * I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help.   **E-Safety: Online Relationships**   * I can use the internet to communicate with people I don’t know well (e.g. • email a penpal in another school/ country). * I can give examples of how I might use technology to communicate with others I don’t know well.   **E-Safety: Online Reputation**   * I can explain how information put online about me can last for a long time. * I know who to talk to if I think someone has made a mistake about putting something online.   **E-Safety: Online Bullying**   * I can give examples of bullying behaviour and how it could look online. * I understand how bullying can make someone feel. * I can talk about how someone can/would get help about being bullied online or offline.   **E-Safety: Managing Online Information**   * I can use 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 (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’. * I can explain why some information I find online may not be true. | **E-Safety: Health, Well-being and Lifestyle**   * I can explain simple guidance for using technology in different environments and settings. * I can say how those rules/guides can help me. * Privacy and Security * I can describe why other people’s work belongs to them. * I can recognise that content on the internet may belong to other people.   **E-Safety: Copyright and Ownership**   * I can describe why other people’s work belongs to them. * I can recognise that content on the internet may belong to other people. |
|  | **Why do we love to be beside the seaside?**  **(GEOGRAPHY)** | **Why were Christopher Columbus and Neil Armstrong brave people?**  **(HISTORY)** | **Who were the Wright Brothers?**  **(HISTORY)** |
| Knowledge | **Hardware/Software: SCRATCH JNR, BEEBOT, KODABLE, TYNKER**  **Computer Science**   * understand what algorithms are; how they are implemented as programs on digital devices. * understand that programs execute by following precise and unambiguous instructions. * create and debug simple programs. * use logical reasoning to predict the behaviour of simple programs. | **Hardware/Software: INTERNET**  **E-safety**   * use technology safely and respectfully, keeping personal information private. * understand the different methods of communication (e.g. email, online forums etc). * know you should only open email from a known source. * know the difference between email and communication systems such as blogs and wikis. * know that websites sometimes include pop-ups that take them away from the main site. * know that bookmarking is a way to find safe sites again quickly. * begin to evaluate websites and know that everything on the internet is not true. * know that it is not always possible to copy some text and pictures from the internet. * know that personal information should not be shared online. * know they must tell a trusted adult immediately if anyone tries to meet them via the internet. * identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | **Hardware/Software: SCRATCH JNR, BEEBOT, KODABLE, TYNKER**  **Computer Science**   * understand what algorithms are; how they are implemented as programs on digital devices. * understand that programs execute by following precise and unambiguous instructions. * create and debug simple programs. * use logical reasoning to predict the behaviour of simple programs. |
| Skills | **Computer Science**   * I can write algorithms for everyday tasks. * I can use logical reasoning to predict the outcome of algorithms. * I understand decomposition is breaking objects/processes down. * I can implement simple algorithms on digital devices (Bee Bots, Apps) * I can debug algorithms. * I understand programs execute by following precise and unambiguous * instructions * I can create programs on a variety of digital devices * I can debug programs of increasing complexity * I can use logical reasoning to predict the outcome of simple programs. | **E-Safety: Self-Image and Identity**   * I can explain how other people’s identity online can be different to their identity in real life. * I can describe ways in which people might make themselves look different online. * I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help.   **E-Safety: Online Bullying**   * I can give examples of bullying behaviour and how it could look online. * I understand how bullying can make someone feel. * I can talk about how someone can/would get help about being bullied online or offline.   **E-Safety: Managing Online Information**   * I can use 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 (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’. * I can explain why some information I find online may not be true.   **E-Safety: Health, Well-being and Lifestyle**   * I can explain simple guidance for using technology in different environments and settings. * I can say how those rules/guides can help me. | **Computer Science**   * I can write algorithms for everyday tasks. * I can use logical reasoning to predict the outcome of algorithms. * I understand decomposition is breaking objects/processes down. * I can implement simple algorithms on digital devices (Bee Bots, Apps) * I can debug algorithms. * I understand programs execute by following precise and unambiguous * instructions * I can create programs on a variety of digital devices * I can debug programs of increasing complexity * I can use logical reasoning to predict the outcome of simple programs. |

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| **CYCLE B** | LCC Question | **What would an alien think about Earth?**  **(SCIENCE)** | **Why are humans not like tigers?**  **(SCIENCE)** | **What would \_\_\_\_\_\_ find exciting about our town/city?**  **(GEOGRAPHY)** |
| Knowledge | **Hardware/Software:** PIC COLLAGE, PLICKERS GOOGLE SHEETS, GOOGLE FORMS, EXCEL, NUMBERS (Data Handling); PUPPETPALS, CHATTERPIX KIDS, I CAN ANIMATE (Animation); SEESAW, VOICE MEMOS, GARAGEBAND, ANCHOR, KEEZY (Sound)  **Use technology purposefully - Data handling/animation/sound**   * use technology purposefully to create, organise, store, manipulate and retrieve digital content; * recognise common uses of information technology beyond school | **Hardware/Software: INTERNET**  **E-safety**   * use technology safely and respectfully, keeping personal information private. * understand the different methods of communication (e.g. email, online forums etc). * know you should only open email from a known source. * know the difference between email and communication systems such as blogs and wikis. * know that websites sometimes include pop-ups that take them away from the main site. * know that bookmarking is a way to find safe sites again quickly. * begin to evaluate websites and know that everything on the internet is not true. * know that it is not always possible to copy some text and pictures from the internet. * know that personal information should not be shared online. * know they must tell a trusted adult immediately if anyone tries to meet them via the internet. * identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | **Hardware/Software:** **SCRATCH JNR, BEEBOT, KODABLE, TYNKER**  **Computer Science**   * understand what algorithms are; how they are implemented as programs on digital devices. * understand that programs execute by following precise and unambiguous instructions. * create and debug simple programs. * use logical reasoning to predict the behaviour of simple programs. |
| Skills | **Use technology purposefully - Data Handling**   * I can sort digital objects into a range of charts such as Venn diagrams, Carroll diagrams and bar charts using different apps and software. * I can orally record myself explaining what the data shows me. * I can create a branching database using questions * I can sort digital objects into a range of charts such as Venn diagrams, Carroll diagrams and bar charts using different apps and software. * I can orally record myself explaining what the data shows me. * I can create a branching database using questions.   **Use technology purposefully - Animation**   * I can create multiple animations of an image and edit these together. * I can create a simple stop motion animation. * I can explain how an animation/flip book works.   **Use technology purposefully - Sound**   * I can create a musical composition using software. * I can record my own sound effects. * I can record my voice over a compositions to perform a song. | **E-Safety: Self-Image and Identity**   * I can explain how other people’s identity online can be different to their identity in real life. * I can describe ways in which people might make themselves look different online. * I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help.   **E-Safety: Managing Online Information**   * I can use 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 (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’. * I can explain why some information I find online may not be true.   **E-Safety: Health, Well-being and Lifestyle**   * I can explain simple guidance for using technology in different environments and settings. * I can say how those rules/guides can help me.   **E-Safety: Privacy and Security**   * I can describe why other people’s work belongs to them. * I can recognise that content on the internet may belong to other people.   **E-Safety: Copyright and Ownership**   * I can describe why other people’s work belongs to them. * I can recognise that content on the internet may belong to other people. | **Computer Science**   * I can write algorithms for everyday tasks. * I can use logical reasoning to predict the outcome of algorithms. * I understand decomposition is breaking objects/processes down. * I can implement simple algorithms on digital devices (Bee Bots, Apps) * I can debug algorithms. * I understand programs execute by following precise and unambiguous * instructions * I can create programs on a variety of digital devices * I can debug programs of increasing complexity * I can use logical reasoning to predict the outcome of simple programs. |
| LCC Question | **Where do and did the wheels on the bus go?**  **(GEOGRAPHY)** | **Who was to blame for the Great Fire of London?**  **(HISTORY)** | **What would our grandparents have played with?**  **(HISTORY)** |
| Knowledge | **Hardware/Software: INTERNET/ SCRATCH JNR, BEEBOT, KODABLE, TYNKER**  **E-safety**   * use technology safely and respectfully, keeping personal information private. * understand the different methods of communication (e.g. email, online forums etc). * know you should only open email from a known source. * know the difference between email and communication systems such as blogs and wikis. * know that websites sometimes include pop-ups that take them away from the main site. * know that bookmarking is a way to find safe sites again quickly. * begin to evaluate websites and know that everything on the internet is not true. * know that it is not always possible to copy some text and pictures from the internet. * know that personal information should not be shared online. * know they must tell a trusted adult immediately if anyone tries to meet them via the internet. * identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.   **Computer Science**   * understand what algorithms are; how they are implemented as programs on digital devices. * understand that programs execute by following precise and unambiguous instructions. * create and debug simple programs. * use logical reasoning to predict the behaviour of simple programs. | **Hardware/Software: INTERNET / DOINK GREENSCREEN, IMOVIE, SHADOW PUPPETS EDU, ADOBE SPARK VIDEO *(video creation);* CAMERA, MARK UP, PHOTOBOOTH, SEESAW, KEYNOTE, PIC COLLAGE, NOTES *(photography and digital art);* AR MAKR, THINGLINK, KEYNOTE, GOOGLE EXPEDITIONS FIGMENT AR *(augmented reality and virtual reality).***  **E-safety**   * use technology safely and respectfully, keeping personal information private. * understand the different methods of communication (e.g. email, online forums etc). * know you should only open email from a known source. * know the difference between email and communication systems such as blogs and wikis. * know that websites sometimes include pop-ups that take them away from the main site. * know that bookmarking is a way to find safe sites again quickly. * begin to evaluate websites and know that everything on the internet is not true. * know that it is not always possible to copy some text and pictures from the internet. * know that personal information should not be shared online. * know they must tell a trusted adult immediately if anyone tries to meet them via the internet. * identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.   **Use technology purposefully - video creation/photography/augmented reality**   * use technology purposefully to create, organise, store, manipulate and retrieve digital content; * recognise common uses of information technology beyond school | **Hardware/Software:** **SCRATCH JNR, BEEBOT, KODABLE, TYNKER**  **Computer Science**   * understand what algorithms are; how they are implemented as programs on digital devices. * understand that programs execute by following precise and unambiguous instructions. * create and debug simple programs. * use logical reasoning to predict the behaviour of simple programs. |
| Skills | **E-Safety: Online Bullying**   * I can give examples of bullying behaviour and how it could look online. * I understand how bullying can make someone feel. * I can talk about how someone can/would get help about being bullied online or offline.   **E-Safety: Health, Well-being and Lifestyle**   * I can explain simple guidance for using technology in different environments and settings. * I can say how those rules/guides can help me.   **E-Safety: Privacy and Security**   * I can describe why other people’s work belongs to them. * I can recognise that content on the internet may belong to other people.   **E-Safety: Copyright and Ownership**   * I can describe why other people’s work belongs to them. * I can recognise that content on the internet may belong to other people.   **Computer Science**   * I can write algorithms for everyday tasks. * I can use logical reasoning to predict the outcome of algorithms. * I understand decomposition is breaking objects/processes down. * I can implement simple algorithms on digital devices. * I can debug algorithms. * I understand programs execute by following precise and unambiguous * instructions * I can create programs on a variety of digital devices * I can debug programs of increasing complexity * I can use logical reasoning to predict the outcome of simple programs. | **E-safety**  **E-Safety: Online Relationships**   * I can use the internet to communicate with people I don’t know well (e.g. • email a penpal in another school/ country). * I can give examples of how I might use technology to communicate with others I don’t know well.   **E-Safety: Online Reputation**   * I can explain how information put online about me can last for a long time. * I know who to talk to if I think someone has made a mistake about putting something online.   **E-Safety: Online Bullying**   * I can give examples of bullying behaviour and how it could look online. * I understand how bullying can make someone feel. * I can talk about how someone can/would get help about being bullied online or offline.   **Use technology purposefully: Video Creation**   * I can write and record a script using a teleprompter tool. * I can use tools to add effects to a video * I can begin to use green screen techniques with support   **Use technology purposefully - Photography and Digital Art**   * I can edit a photo (crop, filters, mark up etc) * I can select and use tools to create digital imagery - controlling the pen and using the fill tool * I can cut images with accuracy to layer on other images.   **Use technology purposefully - Augmented Reality and Virtual Reality**   * I can draw my own 360 image and explore it in VR. * I can bring objects into my surroundings using Augmented Reality. * I can create my own QR code. | **Computer Science**   * I can write algorithms for everyday tasks. * I can use logical reasoning to predict the outcome of algorithms. * I understand decomposition is breaking objects/processes down. * I can implement simple algorithms on digital devices. * I can debug algorithms. * I understand programs execute by following precise and unambiguous * instructions * I can create programs on a variety of digital devices * I can debug programs of increasing complexity * I can use logical reasoning to predict the outcome of simple programs. |