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| Year Group | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Nursery and Reception Starfish | Computer Science Algorithms & Programming  -I can make a Bee-bot or similar move.  -I use a range of control toys and devices.  -I understand that goals can be achieved by following a sequence  of steps.  -I can follow symbol sequence algorithms  (PE Cards, jump, step etc).  - I can say what will happens (or predict) when I press /swipe on a game using the Ipad /whiteboard. | Computer Science Algorithms & Programming  -With support I can programme a  Bee-bot (or similar) to make it move for a particular purpose.  -I can explore and use simple repetition in music and dance.  -I can programme a Bee-bot or similar, one instruction at a time  and clear it at the end.  -I can recognise that there is a problem and say what problem is (plugged or unplugged activities)  -I can make predictions about what a programme will do /do next. | Information Technology  - I use technology appropriately through role-play.  -I can recognise some technology that is used at home or school.  -I can name and use an Ipad with developing control.  -I can select and use technology for a particular purpose.  -I can name a keyboard and mouse and use with developing control.  -I can use a digital device to create and store content e.g.  taking a photo, videoing, artwork. | Information Technology  -I can select and use technology for a particular purpose.  -I can name a keyboard and mouse and use with developing control.  -I can use a digital device to create and store content e.g.  taking a photo, videoing, artwork. | Digital literacy  -I can recognise some technology that is used in places such as home and school.  -I use technology appropriately through role play.  -I can select and use technology for a particular purpose.  -I can access and use simple activities using touch technology with increasing control.  - I can name some uses of IT beyond school e.g. audio books, listening to music, watching films, creating paintings, send messages. | Digital literacy  -I can speak to an adult about what I have seen.  -I can say if something I find on the internet makes me feel bad.  -I know that I need to stay safe when using technology.  -I know that some information should be kept private.  -I know what to do if I see things that upset me online at school. |
| Year 1 and Year 2  Dolphins | **Cycle A**  **Word Processing skills**  -Typing  Use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of using a word processing application to type a simple sentence.  -Symbols and save  Use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of using a word processing application to type different symbols and save a document.  -Editing Use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of using a word processing application to edit the text in a simple fairy tale.  -Undo and Redo  Use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of using a word processing application to correct mistakes using the undo and redo buttons.  -Select and Format  Use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of using a word processing application to highlight appropriate words or sections of type using bold, italics and underline.  -Formatting Text  Use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of using a word processing application to change the size and colour of the font.  **Cycle B**  **Presentation Skills**  -Folders  Use technology safely and respectfully. Children will revise skills from previous unit and learn to create folders.  -What is a presentation?  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -New Slide, Slide Layout  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  **-**Add and Format an Image  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Reorder Slides and Present  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Searching and Printing  Use technology safely and respectfully. Children will learn simple searching and printing options. | **Cycle A**  **Computing skills**  -Parts of a PC  Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the Internet or other online technologies.  -Using a Computer Mouse or Laptop Trackpad  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Using a Computer or Laptop Keyboard  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Launching Applications  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Saving, Finding and Opening Files  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Using our Computing Skills  Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the Internet or other online technologies.  **Cycle B**  **Technology around us**  -Technology in School  Recognise common uses of information technology beyond school.  -Technology in the Home Recognise common uses of information technology beyond school.  -A World of Information Technology  Recognise common uses of information technology beyond school.  -What’s the Use of Information Technology?  Recognise common uses of information technology beyond school. | **Cycle A**  **Programming toys**  -Building Bricks  Understand that programs execute by following precise and unambiguous instructions. Create and debug simple programs  -Potato Man Algorithms Understand how [algorithms] are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions in the context of writing detailed instructions to build a face on a potato man toy.  -Programme a Person Understand what algorithms are and that programs execute by following precise and unambiguous instructions. Create and debug simple programs  -Toy Shop Part 1  Understand what algorithms are and that programs execute by following precise and unambiguous instructions; create and debug simple programs in the context of programming a Bee-Bot (or similar programmable toy) to reach a set marker.  -Debugging Programmable Toys Create and debug simple programs in the context of fixing incorrect Bee-Bot (or similar programmable toy) instructions.  -Toy Shop Part 2  Understand what algorithms are and that programs execute by following precise and unambiguous instructions. Create and debug simple programs.  **Cycle B**  **Programming Turtle Logo and Scratch**  -Drawing Shapes  I am developing problem-solving strategies, navigation and co-ordination skills, as I play and learn with electronic games, remote control or programmable toys.  -Repeat  I am developing problem-solving strategies, navigation and co-ordination skills, as I play and learn with electronic games, remote control or programmable toys.  -Movement and Sound  I am developing problem-solving strategies, navigation and co-ordination skills, as I play and learn with electronic games, remote control or programmable toys.  -Repeat and Say Something  I am developing problem-solving strategies, navigation and co-ordination skills, as I play and learn with electronic games, remote control or programmable toys. | **Cycle A**  **Programming with Scratch Jr**  -Cool Characters  To understand that programs execute by following precise and unambiguous instructions.  -Grow and Shrink To understand that programs execute by following precise and unambiguous instructions.  -Time to Move  To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.  -Repeat  To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.  To use logical reasoning to predict the behaviour of simple programs.  -Sounds  To create and debug simple programs.  -Sequencing  To understand that programs execute by following precise and unambiguous instructions.  **Cycle B**  **Using the internet**  -One Word Search  To use technology purposefully to retrieve digital content in the context of using a search engine online.  -For Kids  To use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the Internet or other online technologies in the context of using an online search engine.  -Links  To use technology purposefully to retrieve digital content in the context of using links on the Internet.  -Taking Photos for Our Blog  Use technology purposefully to create, organise, and store digital content in the context of creating images for an online blog.  -Blogging  Use technology purposefully to create, organise, store and retrieve digital content  -Comments  To use technology safely and respectfully and identify where to go for help and support when they have concerns about content or contact on the Internet in the context of posting comments on other people’s blogs. | **Cycle A**  **Digital Painting**  **-**Brushes  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Colours Everywhere Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Shapes and Fill  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Erase and Recreate Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Adding Text  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Painting a Self-Portrait  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  **Cycle B**  **Digital Artists**  **-**Pixel Pointillism Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Mastering Mondrian  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  -Producing Picasso Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  Magnificent Masterpiece  Use technology purposefully to create, organise, store, manipulate and retrieve digital content | **Cycle A**  **Online Safety**  **-**Owning Your Creative Work  Use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of naming and dating a digital self-portrait.  -Safe Image Searching  Use technology safely and respectfully in the context of searching for appropriate images online.  -Staying SMART Online  Use technology safely and respectfully in the context of learning about the SMART rules for Internet safety.  -My Personal Information  Use technology safely and respectfully in the context of keeping personal information safe.  -What Is Email? Recognise common uses of information technology beyond school in the context of sending an email  -Keeping Zibb  Safe Online  Use technology safely and respectfully in  **Cycle B**  **Online Safety**  **-**Digital Footprints Recognise common uses of information technology beyond school.  **-Keywords**  Use technology safely and respectfully in the context of finding relevant information about a destination using keywords.  **-You Be the Judge** Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies in the context of identifying appropriate websites for children.  **-**Being Kind Online Recognise common uses of information technology beyond school. |
| Year 3 and 4  Lions | **Cycle A**  **Online Searchers and Surfers**  **-**What Is the Internet and how does it work? Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.  -Ready, Set, Search! Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  -Copying and Pasting Images  Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  -Back to your future  Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  **Cycle B**  **Communication and Collaboration**  -Communicating Online  Understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration  **-Exploring email**  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  **-Adding attachments**  Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  **-Collaborating online**  Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. | Cycle A  Coding with scratch learning loops  -Scratch Revisited  Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  -Repetition Loops (Count-Controlled)  Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  -Forever Loops  Use sequence, selection, and repetition in programs; work with variables and various forms of input and output  -Loops in Games  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decom  **Cycle B**  **Animation**  -History of Animation  Analyse, evaluate and present data and information in the context of understanding the history of animation.  -Stick Figure Animation  Use a variety of software to design and create content that accomplish given goals in the context of a computer animation of a stick figure.  -Stop Motion Animation  Use a variety of software, on a range of digital devices, to design and create content that accomplish given goals in the context of stop motion animation using a webcam or digital camera and associated software. | Cycle A  Drawing and desktop publishing  -Objects Select  Use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  -Ordering and Grouping Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  -Posters  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  **Cycle B**  **Online Safety**  -Cyberbullying  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of thinking about how online messages can be hurtful.  -Super Searchers  Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of using search engines accurately.  The Online Community  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of giving examples of how to be a good digital citizen. | Cycle A  Online safety  -To Buy or Not to Buy? Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of identifying advertisements online.  -Keep It to Yourself!  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of creating passwords and using privacy settings.  -Emailing  Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the op  **Cycle B**  **Programming Turtle Logo**  Procedures  Design write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. In the context of using Turtle Logo to create and debug a procedure. | Cycle A  Presentation skills  -Planning a Branching Story Select use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  -Creating the Slides Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. This is the second of three lessons where children apply the learning from the previous lessons to create a branching story. Here they create their presentation structure.  -Audio and Video Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  -Completing the Story  Select  Use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  **Cycle B**  **Coding and scratch**  -Let’s Quiz!  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  -Brilliant Backdrops and Super Sprites  Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  -Ready, Steady, Go!  Using logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. | Cycle A  Word processing  -Screenshots and Passwords  Use technology safely, respectfully and responsibly  -Change Case Select use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  -Align Text  Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  -Bullets and Numbering  Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  **Cycle B**  **Word processing**  -Ingenious Images Select, use and combine a variety of software on a range of digital devices to design a range of programs, systems and content that accomplish specific goals in the context of creating a poster for a purpose.  -Super Spelling Select, use and combine a variety of software on a range of digital devices to design a range of programs, systems and content that accomplish specific goals in the context of using spellcheck to edit spellings in a letter to parents.  -Transform a Layout  Select, use and combine a variety of software on a range of digital devices to design a range of programs, systems and content that accomplish specific goals in the context of creating simple cake recipe cards |
| Year 5 and 6 Eagles | **Cycle A**  **Strategic searching online**  -Search Engines  Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  -Trusted Pages  Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  **-** Search Engine Optimisation Use search technologies effectively, appreciate how results are selected and ranked, and be discerning  **Cycle B**  **Know your network**  **-**What Is a Computer Network?  Understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.  **-**Types of Computer Networks  Understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.  -Computer Network Connections  Understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration | **Cycle A**  **Coding with scratch: developing games**  **-** A-Maze Game!  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  -Level up  Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  High Score!  -Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **Cycle B**  **Coding with scratch: animated stories**  **-** Animating a Scene  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. To create appropriate animations.  **-** Broadcast a Message Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  -Planning and sequencing a story  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. | **Cycle A**  **Flowol**  **-** What is a Flowchart? Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **-** Programming Outputs  Use sequence, selection, and repetition in programs; work with variables and various forms of input and output  **Cycle B**  **3D Modelling**  **-** Adding and Moving 3D Objects  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **-** Modifying 3D Objects Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  - Design a Game Character Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  - Build a Game Character Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. | **Cycle A**  **Online safety**  **-** Spam!  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of identifying and avoiding spam emails  -Sites to Cite  Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of citing the work of others.  **-** Powerful Passwords Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of following rules to help create strong passwords.  False Photography  Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of finding out how photos can be altered and presented as reality online  -Online Safety Story Planning  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of planning a story about the consequences of not following online safety rules.  **Cycle B**  **Kodu Programming**  **-** Code Investigator Select, use and combine a variety of software, including evaluating and presenting data and information. use logical reasoning to explain how some simple algorithms work.  **-** When and Do Instructions  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  **-** Deconstructing Code Solve problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work. | **Cycle A**  **Radio Station**  **-** Audacity  Select, use and combine a variety of software on a range of digital devices to create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  **-** Planning Podcasts Select, use and combine a variety of software on a range of digital devices to create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Children research and plan appropriate digital content for presentation on a radio show podcast.  -Recording Podcasts Select, use and combine a variety of software on a range of digital devices to create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Children use sound recording software to create appropriate digital content for presentation on a radio show podcast.  **Cycle B**  **Online Safety**  -Cyberbullying  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of comparing cyberbullying to bullying in person and developing strategies for dealing with online bullying.  - Secure Websites  Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of identifying secure and unsecure websites.  -People Online  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of identifying information that is safe and unsafe to share with online friends. | **Cycle A**  **Radio Station**  -Advertising  Select, use and combine a variety of software on a range of digital devices to create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Children examine the features of advertisements and use the ideas to design their own advert to be recorded using audio software as part of their radio station or podcast.  -Playback and Performance Select, use and combine a variety of software on a range of digital devices to create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Children are given the opportunity to complete previous projects (podcast or radio advert) then present to their peers.  **Cycle B**  **Film-making**  -Writing a Script Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals in the context of writing and planning a short documentary film.  **-**Research and Sources  Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Understand computer networks including the internet and the opportunities they offer for communication and collaboration in the context of using the Internet to research their chosen documentary topic.  **-**Filming  Use a variety of software on a range of digital devices to design and create a range of content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information in the context of filming documentaries using digital devices and importing them into video editing software.  **-**Interviewing  Use a variety of software on a range of digital devices to design and create a range of content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information in the context of planning and executing video interviews recorded using digital devices and importing them into video editing software.  Editing  Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplish given goals, including presenting information in the context of using video editing software to combine and edit their videos into a finished film.  **-** Publishing Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplish given goals, including presenting information in the content of adding final touches to turn their videos into a finished film, saving as a movie file and presenting with a screening. |

* IT cycle A and cycle B overview, along with full skill coverage.
* Link to lesson plans, full coverage and lesson resources for you to use: <https://www.twinkl.co.uk/resources/planit-primary-teaching-resources/planit-computing-primary-teaching-resources/planit-computing-primary-teaching-resources-y1>