

NC Knowledge and Computational Skills	Pupils not securing learning	Pupils achieving depth
Autumn 1 – Mouse and Keyboard Skills/Technology Around Us/E-safety Key Questions Can you spot technology in the classroom? Give some examples of technology out of the classroom. Why is technology important? Why do we use technology? What are our rules for using technology safely? Can you name the parts of a computer? <u>NC objectives covered:</u> -Recognise common uses of information technology beyond school. -Use technology purposefully to create, organise, store, manipulate and retrieve digital content. E-Safety - <i>Use technology safely, 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.</i> <u>Unit objectives:</u> All children are able to: -Use the technology covered safely (dry hands, sitting correctly) - Name the main components of the PC -Find letters on keyboard. -Begin to understand what touch typing is and begin to touch type with home row keys. -Use the mouse to select and open a program. -Use the keyboard to type own name.		

Some will: - Recall all the SMART rules -Log on/ off, shut down (independently) - Use the mouse to drag and drop. -Use the keyboard to type own name using the shift key for initial capital letter.		
Autumn 2 – Digital Art and E-safety Key Questions What is a pixel? How could you describe a pixel to a child younger than you? What is pointillism? What are the benefits of computer imagery? E-Safety Focus- Why do websites want personal information? <u>NC objectives covered:</u> <i>-Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i> <i>-Use logical reasoning to predict the behaviour of simple programs.</i> <i>E-Safety - Use technology safely, 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.</i> <u>Unit objectives:</u> All children are able to: - Change the colour of individual pixels to accurately re-create a basic artwork -Make changes to digital input where required with support. -Change the colour of individual pixels to accurately re-create detailed artwork		

- Recall some of SMART rules Some will: - Recall all of the SMART rules - Make changes where required independently		
Spring 1 –Digital Writing/E-safety Key Questions Which part of the computer could you use to add letters/numbers to your page? What are the positives of digital writing? Can you name some negatives of digital writing? Which do you prefer? Why? <u>NC objectives covered:</u> -Use technology purposefully to create, organise, store, manipulate and retrieve digital content. E-Safety - <i>Use technology safely, respectfully, keeping personal information private.</i> <u>Unit objectives:</u> All children are able to: - Recognise letters, numbers, space bar and back space keys on a keyboard - Input text using a keyboard - Delete a digital text Some will: - Edit text using the toolbar - Know how to use upper/lowercase letters		
Spring 2 – Design and Creation (Comic and Music) / E-safety Key Questions What is a comic?		

What are the features of a comic? Who reads comics? What does your comic have to include? How will you make it suitable for your audience? What do like about your comic/what would you change? Why is it effective using digital imagery? <u>NC objectives covered:</u> <i>-Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i> <i>-Recognise common uses of information technology beyond school.</i> <i>E-Safety - Use technology safely, 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</i> <u>Unit Objectives:</u> All children will be able to: Add a suitable background to a panel Use different controls to move around a screen Input simple instructions Create a simple algorithm (produce a melody) Some children will: - Add text to a digital image - Input a series of simple instructions		
Summer 1 – Programming /E-Safety Key Questions What do you think an algorithm is? Why/when would algorithms be used? Explain why it is important that instructions are given in the correct order. Can you predict what might happen if...?		

If we changed this...what would happen? <u>NC objectives covered:</u> -Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. -Create and debug simple programs. -Use logical reasoning to predict the behaviour of simple programs. <i>E-Safety - Use technology safely, 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</i> <u>Unit Objectives:</u> All children are able to: - Understand what algorithms are -Create simple programs -Predict the behaviour of simple programs with support Some children will: - Explain what an algorithm is -Create and debug simple programs -Predict the behaviour of simple programs independently		
Summer 2 – Programming Toys/E-Safety Key Questions What is a command? What does this* button do? Which direction is it going in? What do you think an algorithm is?		

Why/when would algorithms be used? Can you predict what might happen if...? If we changed this...what would happen <u>NC objectives covered:</u> -Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions -Create and debug simple programs -Use logical reasoning to predict the behaviour of simple programs <i>E-Safety - Use technology safely, 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</i> <u>Unit Objectives:</u> All children are able to: -Predict the outcome of a command on a device -Match a command to an outcome -Run a command on a device -Programme a robot Some children will: -Create/give commands -Explain what an algorithm is		
---	--	--