Computing Curriculum End Points

This document outlines the 'sticky knowledge' that children will learn during the following topics.

Theme: Algorithms and Programming	Key Stage/Year Groups: KS1 /Year 1
Sticky Knowledge	
Children will know: • To create a simple list of instructions using left and right, up and down. • To use 'Beebots' (or relevant applications) to plan and test a basic journey. • To begin to understand the word 'algorithm'.	

Theme: Data and use of Technology	Key Stage/Year Groups: KS1 / Year 1
Sticky Knowledge	
Children will know: • To capture images with a camera. • Record video/audio with a camera. • Find and playback any videos they record. • Use a touch screen to find applications.	

Theme: Understanding of Technology	Key Stage/Year Groups: KS1 / Year 1
Sticky Knowledge	
Children will know: • To be aware of the internet, what it is and some of its uses. • To search for something through a search engine. • Recognise what an email address is.	

Theme: Internet Safety	Key Stage/Year Groups: KS1 / Year 1
Sticky Knowledge	
Children will know: • To understand how people communicate online for example, email.	

- Know that websites sometimes include pop-ups and not to click on those.
- Know that if someone contacts them via the internet, to tell a trusted adult immediately.
- Know that if they see an inappropriate image online to tell an adult immediately.
- Know that the internet is great for information but we cannot always trust what we find.

Theme: Algorithms and Programming	Key Stage/Year Groups: KS1 / Year 2
Sticky Knowledge	
Children will know: • That when they create a list of instructions, they have made an algorithm. • Predict what will happen when an algorithm is complete. • Begin to change and improve algorithms.	

Theme: Data and Use of Technology	Key Stage/Year Groups: KS1 /Year 2
Sticky Knowledge	
Children will know: • How to find information and applications on a range of devices. • Know how to manipulate font through applications like Word. • Begin to know to navigate a website. • Use search engines to find information.	

Theme: Understanding of Technology	Key Stage/Year Groups: KS1 / Year 2
Sticky Knowledge	
Children will know: • Know some of the differences between computers now and computers in the past.	

- Begin to know the differences between a computer and more basic pieces of technology.

Theme: Internet Safety	Key Stage/Year Groups: KS1 / Year 2
Sticky Knowledge	
Children will know: • Know you should only read messages from people you know. • Know that some applications and games have an age-rating and are not meant for children. • Know that money can be spent on the internet and applications and to be careful not to do this. • Know that they should not share personal information online. • Know what a password is and why we need them when working online / with technology. • Know what to do if somebody sends them a message/they find images that are inappropriate.	

Theme: Algorithms and Programming	Key Stage/Year Groups: KS2 /Year 3
Sticky Knowledge	
Children will know: • Know hoe to improve algorithms and begin to know that this is called debugging. • Begin to experiment with what will happen when instructions are changed. • Begin to understand that algorithms can be used outside of computing.	

Theme: Data and use of Technology	Key Stage/Year Groups: KS2 / Year 3
Sticky Knowledge	
Children will know: • How to create a full presentation and present this to their class. • Manipulate text, knowing how to highlight areas that need changing.	

- Manipulate images rotating and changing filters for presentations.
- Know how to get images from online.
- Know how to save work on the server / system.
- Begin to send very basic emails

Theme: Understanding of Technology	Key Stage/Year Groups: KS2 / Year 3

Sticky Knowledge

Children will know:

- Know why we use different software for different purposes for example, Notes and Slides.
- Know that the school is a network and we are able to access each other's work.
- Know that information found on the internet is not always true.

Theme: Internet Safety	Key Stage/Year Groups: KS2 / Year 3

Sticky Knowledge

Children will know:

- That rules are needed to keep them safe online and begin to introduce those rules.
- To use caution when searching for images online and what to do if they find an inappropriate image.
- That passwords for their accounts are private.
- That cyberbullying is unacceptable and know what to do if they encounter it.
- That information found on the internet is not always true.
- Why they should not share personal information online.
- What is meant by 'Digital Footprint'.

Theme: Algorithms and Programming	Key Stage/Year Groups: KS2 /Year 4

Sticky Knowledge
Children will know: • What debugging is and begin to use it. • Begin using block codes to create algorithms and basic animations. • To identify that computing skills such as algorithms and debugging can be applied outside of computing. • To give accurate predictions on the outcome of programs.

Theme: Data and use of Technology	Key Stage/Year Groups: KS2 / Year 4
Sticky Knowledge	
Children will know: • That there is an automatic spellcheck on software and begin to to know how to use it. • That the search bar is also an address bar to type website addresses straight in. • To use tabbed browsing. • To add images, videos and sounds to software.	

Theme: Understanding of Technology	Key Stage/Year Groups: KS2 / Year 4
Sticky Knowledge	
Children will know: • What software to choose when asked to do specific work, for example a presentation – slides or ppt. • The difference between plagiarising work they have found and putting it into their own words.	

Theme: Internet Safety	Key Stage/Year Groups: KS2 / Year 4
Sticky Knowledge	
Children will know: • Exactly what cyberbullying is and how to identify it. • How to respond if asked for personal information online.	

- The outcome of searches and the sites we can use may be different at home than at school.
- That music, images and videos have 'copyright' and what this means.
- What they could do if they find a piece of suspicious information that they are unsure is true or not online.

Theme: Algorithms and Programming	Key Stage/Year Groups: KS2 /Year 5
Sticky Knowledge	
Children will know: • How to write programs that contain repetition. • How to decompose algorithms. • Create an animation or game that consist of several elements. • The following terms: sequence, algorithm, debugging, decomposition.	

Theme: Data and use of Technology	Key Stage/Year Groups: KS2 / Year 5
Sticky Knowledge	
Children will know: • How to add different texts, images, sounds and animations to presentations, videos or animations. • To consider an audience when editing. • To use Excel/Sheets to create a base of data. • To use artistic software to create images and manipulate them appropriately.	

Theme: Understanding of Technology	Key Stage/Year Groups: KS2 / Year 5
Sticky Knowledge	
Children will know: • That all computers contain input, output, storage and processing.	

- That the internet is a physical network that goes around the world.
- Have a basic knowledge of the school's network.

Theme: Internet Safety	Key Stage/Year Groups: KS2 / Year 5
Sticky Knowledge	
Children will know: • The positives and negatives of technology and the internet in their own lives. • That some adults online may use malicious ways to find out information about them. • That anything put online is very hard to remove. • What to do if they discover something malicious or inappropriate online. • How and why we are unable to access some sites at school. • To competently use the internet as a research tool knowing that not everything can be trusted. Know to evaluate this information and understand that it maybe biased.	

Theme: Algorithms and Programming	Key Stage/Year Groups: KS2 /Year 6
Sticky Knowledge	
Children will know: • To detect errors accurately in algorithms and correct them. • How to discuss 'what if' questions when looking at algorithms. • To use input from sensors to trigger events. • To create a game /animation using all the skills learnt in their computing journey so far.	

Theme: Data and use of Technology	Key Stage/Year Groups: KS2 / Year 6
Sticky Knowledge	
Children will know:	

- To use music software to create a piece of music.
- To add special effects to alter graphics and appearance.
- To contribute to structured discussions online.
- How to make a poster / presentation using all the skills learnt in computing.

Theme: Understanding of Technology	Key Stage/Year Groups: KS2 / Year 6
Sticky Knowledge	
Children will know: • The four elements of a computer such as input and output and begin to understand what binary is. • How to capture images, sounds and videos on devices. • How to use editing software.	

Theme: Internet Safety	Key Stage/Year Groups: KS2 / Year 6
Sticky Knowledge	
Children will know: • To use appropriate strategies for finding information online and evaluating, validating and verifying it. • The benefits of developing a 'nickname' online. • That online environments have security settings which can be altered to protect the user. • That they should not publish other people's pictures online or tag them without permission. • How to behave with one another when communicating online.	