INTENT	The intent of our Computing curriculum is…	…that pupils should achieve and reach their full potential. We aim to provide them with an engaging and authentic curriculum. Our Computing Curriculum, allows all pupils to develop skills and knowledge that will prepare them to be responsible digital citizens, in a technology rich future. By experiencing a wide range of current technology, such as engaging physical computing devices (Beebots and MicroBits) and creative software. We aim to create confident, creative, curious and resilient individuals. Pupils will see the purpose of Computing and its endless possibilities; beyond the limited uses they are familiar with e.g. playing internet games or watching YouTube videos. Pupils may have limited access to technology at home however, we believe that Computing can provide pupils with a wide range of cross-curricular skills that they can use across a variety of subjects and settings. These include problem-solving, critical thinking, resilience and creative thinking. In addition, alongside our PSHE curriculum, pupils will learn how to become active, responsible digital citizens online. *With the majority of pupils being active online at a young age and with a lack of parental understanding, we deliver a curriculum that teaches them how to act safely and responsibly on the internet and what to do if they do not feel safe online.* We also aim for our pupils to be critical, informed users of the internet, meaning they can identify reliable and credible information.
IMPLEMENTATION	The experiences your children will receive are…	…based upon the National Curriculum, pupils will receive a creative, relevant curriculum that focuses on the progression of skills and knowledge. ▪ Discrete Computing lessons, pupils will receive a balance of Computer Science, IT and Digital literacy teaching. ▪ Receive high quality teaching that focuses on depth, progression and challenge. ▪ Pupils will develop computing 'life skills'. ▪ E-Safety is to be embedded into lessons to ensure pupils understand how to use technology safely and responsibly. ▪ Access to a wide range of Computing software and devices. ▪ Whole school events such as Safer Internet Day. ▪ Exciting extra-curricular clubs such as Coding club and Mathletics.
IMPACT	By the end of their time at Lakes Primary, we hope our children…	…are able to use technology safely, responsibly, respectfully and securely with a good understanding of how to keep themselves safe when Online and how to report concerns or seek help. ▪ Developed skills and knowledge across the three Computing strands (Computer Science, Digital Literacy and IT). ▪ Developed an enthusiasm for Computing. ▪ Participated in authentic, exciting Computing learning projects. ▪ Become confident, responsible users of the internet. ▪ Developed a range of cross-curricular skills such as resilience and problem-solving. ▪ A deeper understanding of the different uses of technology in our wider world.

Computer Science	Digital Literacy	Information Technology		
Programming and Theory	**E-Safety & Research**	**Communication**	**Data**	**Multimedia**
Programming Simulations Computer Theory	Research E-safety	Word processing Presentations Online collaboration	Graphs Databases Spreadsheets	Creating images Photography Animation Video Audio

EYFS

Ready to progress statements	2-Year-Old, Nursery and Reception		
	Computer Science	Information Technology	Digital Literacy
	▪ I can help adults **operate equipment** around the school, independently operating simple equipment ▪ I can use simple software to make things happen ▪ I can **explore** options and make **choices** with toys, **software** and **websites** ▪ I can press buttons on a bee bot and **talk** about the movement	▪ I have developed an **interest** in ICT by using **age appropriate** websites or programs. ▪ I can use a **mouse** to **rearrange** objects and pictures on a screen. Begin to use a keyboard. ▪ I recognise **text, images and sound** when using ICT. ▪ I can use a **camera** or **sound recorder** to collect photos or sound ▪ I can use a simple pictogram or set of photos to count and organise **information**.	• I can play appropriate games on the **Internet.** https://www.barefootcomputing.org/resources/crazy-character-algorithms • I can explore appropriate **unplugged** games. E.g to create pictures using algorithms. https://www.barefootcomputing.org/resources/crazy-character-algorithms). ▪ I can talk about good and bad **choices** in real life e.g. taking turns, saying kind things, helping others, telling an adult if something upsets you.

KS1

Ready to progress statements	**KS1 Objectives**		
By the end of EYFS, the children will be expected to: **Computer Science** -Explore simple software to make things happen. -Explore options and make choices about resources and software -Explore pressing buttons on bee bots and talk about what happens. **Information Technology** -The children can explore age appropriate software and use a mouse to click and drag. -They can recognise text, images and sound. -They can count and organise information **Digital Literacy** -They can play and explore age appropriate games on the internet -They can discuss good and bad choices in real-life contexts.	**Computer Science**	**Information Technology**	**Digital Literacy**
	▪ I can **follow instructions** to make something happen so it works. ▪ I can control the movement of a floor turtle (egBeeBot) using **single commands** (eg FD or RT) ▪ I can control the movement of a floor turtle (egBeeBot) using MORE THAN ONE **command** (FD then RT) to make it work well. ▪ I understand that an **algorithm** is a listof instructions that must be done **in the right order**. ▪ I can create a list of instructions to make things **happen really well** (eg on a device or App). ▪ I can control and **debug** commands for a BeeBot or Screen Sprite to move it to a given **position**. ▪ I can **predict** where the BeeBot or Screen Sprite will finish after a list of commands take place. ▪ I can **explain to others** how to create a program (eg on a laptop/PC).	▪ I can complete a simple task on a computer or tablet by **following instructions**. ▪ I know I **need to save** my work. ▪ I can **load** my digital work (with some help). ▪ I can enter **text** in to my work. ▪ I understand that you can **enter numbers in to a computer** (eg to create a pictogram). ▪ I can use technology to **create a range of content** (ie text based, image based, number based). ▪ I can **save and load (retrieve)** my work on a range of devices (eg laptops and tablets). ▪ I can **change what is in my work** and **the look** of my work (ie change the format).	▪ I can understand that some work is online and that some is offline. ▪ I understand someinformation is **private (passwords)** and shouldn't be shared ▪ I know that **I can tell a trusted adult** if something worries me online. ▪ I can identify some **common uses of technology** outside of the school. ▪ I understand some basic rules about how to **communicate safely**with other people online ▪ I am beginning to understand that **not all the content on web sites is true.** ▪ I can identify **personal informationthat should be kept private**.

Year 3/4

Ready to progress statements	**Year 3/4 Objectives**		
By the end of Key Stage 1, the children will be expected to: **Computer Science** -To understand an algorithm and that it must be done in order. -To control and debug commands. -To make predictions about your commands before testing them. -Explain to others about how to create a program. **Information Technology** -To use technology for a range of contents. -To save and load my work to make changes. **Digital Literacy** -To identify common uses of technology. -To have a basic understanding of how to stay safe when communicating online. - To know not everything on the web is true. -To know which information should be kept private.	**Computer Science** ▪ I understand that usually a problem can be **broken up into smaller parts**. ▪ I can **create an algorithm** to make something happen successfully. I can talk about it. ▪ I know when to **test a program** and when to **debug** it if it doesn't work. ▪ I understand that **repeating instructions** can **save time and make a program simpler**. ▪ I can explain how a simple **program works** (you may like to use the words **input and output**). ▪ I can **predict** some of the things that may happen BEFORE I run my program. ▪ I can **recognise an error in a program and debug** it so that it works. ▪ I understand that algorithms (step by step instructions) will **help the user to solve problems**. ▪ I recognise the need to **test and retest** whilst a program is being developed (using my prediction skills of what MIGHT work). ▪ I understand that a program is built up of **sequences of instructions** that are in order. ▪ I understand that many programs **can follow more than one route** (more than one thing can happen). ▪ I understand that repeating instructions can save time and make a program **more efficient**.	**Information Technology** ▪ I can **communicate my ideas well** using the right software and formats. ▪ I understand that appropriate messages can be **sent digitally.** ▪ I can use an **appropriate search engine effectively.** ▪ I can use software to **collect and present** data in a way that is **easy to understand**. ▪ I can **create a presentation that is easy to understand** and that **is interesting**. ▪ I can use some of the **more advanced features of applications** (not just change font) to present my ideas and work clearly. ▪ I can **combine more than one source of information** (eg text, picture, video, animation, sound) in my work. ▪ I can **evaluate my digital work** to see if it has met the target or goal set for me. ▪ I can use an appropriate search engine effectively and **judge if the information is useful to me**. ▪ I can use software to **collect, present and analyse data appropriately** (eg to make a chart). ▪ I can **create a presentation** to convey meaning **and edit** it if necessary (eg on PowerPoint).	**Digital Literacy** ▪ I understand how to save and get back data on the school network and hand-held device such as a tablet computer. ▪ I understand some simple rules about how to **communicate safely** with other people online. ▪ I understand that the **World Wide Web** contains **lots of web pages** about different subjects. ▪ I am beginning to understand that **not all information on web sites is true** (eg spoof websites). ▪ I can identify personal information that **should be kept private and not shared online**. ▪ I can recognise **age appropriate symbols** (eg for games and films) to keep me safe. ▪ I can identify some common uses of **technology** outside of the classroom. ▪ I can use technology safely and **respectfully** considering other people's feelings. ▪ I can identify personal information thatshould be **kept private**. ▪ I know **how I can get help and support** if I am worried when using a computer.

Year 5/6

Ready to progress statements	Year 5/6 Objectives		
By the end of Year 3/4, the children will be expected to: **Computer Science** -To explore algorithms to recognise an error in the program and debug it. -To understand why you need to test a program and make predictions throughout. -To explain what a program is and how it is built up. -To know how to make a program more efficient. **Information Technology** -To have used a range of features to present their ideas and work clearly including more than one source of information. -To evaluate my work to see if I have met my goals. --To have used software to collect, present and analyse data -To have created a presentation to convey meaning. **Digital Literacy** -To identify common uses of technology outside of the classroom. -To use technology safely and respectfully, understanding other people's feelings. -To identify and discuss which personal	**Computer Science** ▪ I can use a range of **sensing tools** (eg within programs such as Scratch) to **control what happens** (eg based on the positions of the sprite, mouse position or inputs such as sound level). ▪ I can recognise **an error in a program, debug the program and explain the changes I have made**. ▪ I recognise the need to **test and retest** whilst a program is being developed. ▪ I understand that **repeating instructions** can **save time and make a program simpler** (eg create a loop). ▪ I understand that any system requires **input devices** (eg keyboard). ▪ I understand that computers can be **linked together to create a network** and that this can help me working with others online (collaboration). ▪ I can **write programs to do what I want them to do**. I can **test and debug** these. ▪ I can use **IF, THEN, ELSE** commands to control what happens (eg in Scratch). ▪ I understand that **variables** can be used to make a game more realistic (eg a timer or a score). ▪ I can **create or use a simulation** of a real (physical) system. ▪ I can **control a physical system** using a range of commands (eg robot). ▪ I understand that any system requires **input devices** (eg keyboards) and output devicesand that the **system processes the data**.	**Information Technology** ▪ I am aware of **several different search engines** and can explain some of their differences (egKidrex, Google, Bing). ▪ I understand that my work can be **saved in a range of places.** ▪ I can **combine more than one source of information** (eg text, picture, video, animation, sound) in my work and can present this well to **other people**. ▪ I can use software to **collect, present and analyse data appropriately**. I can **explain what I have done** to other people. ▪ I can **create and edit a presentation** to provide information clearly and can **include hyperlinks** in it (eg using PowerPoint). ▪ I am aware of **several different search engines** and can explain **some of their features**. ▪ I understand that my work can be **saved in a range of places** and **can talk about this**. ▪ I can **select, use and combine a variety of software effectively** (including internet services) to meet the goals I have been set. ▪ I can combine **several sources of information** (eg text, picture, video, animation, sound) in my work to meet the goal I have been set. ▪ I can use software to **collect, present, analyse and evaluate data appropriately** (eg using a spreadsheet	**Digital Literacy** ▪ I can name a range of ways in which technology can be used outside school. is one way in which the internet can be used. ▪ I can find some websites that are both useful and reliable (based on the author of the site). ▪ I can describe some of the risks of sharing too much information online. ▪ I understand how I can report worries I have when using the internet. ▪ I understand that **computer networks** (including the internet) provide people with a range of services (including the World Wide Web). ▪ I can name some of the ways that**networks** allow you to cooperate and collaborate with other people. ▪ I can name some of the **dangers of communicating and collaborating with others online.** ▪ I can describe why some **World Wide Web** pages are more useful and **reliable** than others. ▪ I can **describe** some ways in which technology should be used **safely, respectfully and responsibly.** ▪ I understand that it is **illegal** to download **or copy material** (without the written permission of the owner). ▪ I understand how I can **report worries** I have when using the internet. I know how to help other people if I need to.

information should be kept private. -To know how to get help and support if they are worried when using the computer.	▪ I understand some of the ways that **results are selected and put in order (ranked)** when search for on the World Wide Web.	and/or a database). ▪ I can **create and edit a presentation** to convey meaning and include nonlinear hyperlinks in it (eg PowerPoint). ▪ I can present data and information in a way that is **easy to understand**.	