Computing Progression in KUS

Knowledge	Year One	Year Two
• Digital Literacy • Online Safety • Information Technology • Computer Science	**National Curriculum Content:** 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**.** Use logical reasoning to predict the behaviour of simple programs**.** Recognise common uses of information technology beyond school	
	• I know how digital technology is used at home and in a work environment. • I know that ICT can give access quickly to a wide range of resources • I know to keep passwords private. • I know what personal information is and know importance of keeping it private. • I know what to do if worried or concerned about something seen or heard online • I know to use technology to create, organise and manipulate digital content • I can name parts of a computer and describe their function. • I know that information comes from different sources • I know that an algorithm is a way of solving a problem • I know that an algorithm can be followed by individuals • I can begin to understand how a computer processes instructions and commands (computational thinking)	• I know how digital technology supports lives at home and in work places • I know why technology is used in the home and community. • I know about the things that happen online should be reported to a trusted adult. • I know why passwords and personal information should be kept private. • I know that not everyone is who they say they are on the Internet. • I know where to go to for help and support when they have concerns about content on the internet or other technologies. • I know about the different forms of digital content and know how to use technology purposefully e.g. text, images, sound • I know and can talk about how information can be used to answer specific questions • I know that an algorithm is a sequence of instructions or step-by-step guide. • I can create, edit and refine sequences of instructions for a variety of programmable devices. • I know that programs don't always work first time • I can identify a program's bugs and find a logical way of debugging.
Assessment by end of year two	• **I know why we use technology in the home and community** • **I know to keep safe and show respect to others while using digital technology** • **I know how to organise and analyse collected data in an effective way** • **I know programming software/toys makes objects move.**	
Understanding • Digital Literacy • Online Safety	**National Curriculum Content:** Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions**.** 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	
	• I can recognise common uses of computers in everyday life in school and outside of school	• I can talk about the differences between the Internet and things in the physical world

• Information Technology • Computer Science	• I can talk about the ways we use technology in our classroom • I can begin to identify some of the benefits of using technology. • I understand that I can find a range of information on the internet. • I can talk about why it is important to be kind and polite online. • I can recognise an age appropriate websites and content. • I can talk about the different ways in which information can be shown. • I understand what algorithms are. • I can give examples of algorithms in everyday life • I can describe what actions I will need to do to make something happen and begin to use the word algorithm. • I can use the word debug when I correct mistakes when I program	• I can talk about the ways we use technology in our classroom and beyond school • I can identify the benefits of using technology including finding information, creating and communicating • I understand that I should choose websites that are good to visit, and avoid sites that are not good to visit. • I can talk about the importance of being kind and polite online and in real life. • I know that any information put online leaves a digital footprint. • I can explain and describe the key characteristics of basic computer construction • I can explain how information can be represented in a computer in a variety of ways e.g. sound • I can talk about the different ways I use technology to collect information • I can explain that an algorithm is a precise way of solving a problem • I can give examples of algorithms in everyday life beyond school • I know that an algorithm can be followed by individuals and computers • I can use logical reasoning to predict the behaviour of simple programs • I can watch a program execute and spot where it goes wrong so that I can debug it
Assessment by end of year two	• **I can talk about the different ways I use technology to collect information** • **I can follow online safety rules** • **I can explain why I need to keep my password and personal information private.** • **I can use technology purposefully to organise and present my ideas in different ways** • **I can tell you the order I need to do things to make something happen and talk about this as an algorithm**	
Skills	**National Curriculum Content:** Create and debug simple programs. Use technology purposefully to create, organise, store, manipulate and retrieve digital content	
• Digital Literacy • Online Safety • Information Technology • Computer Science	• I can sort different kinds of information and present it to others. • I can use digital cameras, iPod/iPad, video cameras to capture still/moving images for different purposes with help • I can use technology purposefully to create digital content. • I can use technology purposefully to store digital content. • I can develop digital skills e.g. using graphics or sound/music	• I can identify the benefits of using technology including finding information, creating and communicating • I can use technology respectfully. • I know the benefits about going online and staying safe • I can keep all personal information private • I can communicate online in a kind and friendly manner • I can explain and describe functions the key characteristics of computers

	- I can create algorithms with clear instructions - I can begin to predict what will happen for a short sequence of instructions - I can begin to use the word debug when I correct mistakes when I program - I can begin to use software/apps to create movement and patterns on a screen.	- I can take record video, still images and sound using different devices - I can use technology purposefully to organise, use and store digital content. - I can develop greater digital skills e.g. taking photographs/editing. - I can manipulate data in graphical ways - I can explain how the same information can be represented in a computer in a variety of ways e.g. sound - I can program a robot or software to do a particular algorithm. - I can use logical reasoning to predict the behaviour of simple programs. - I can use the word debug when programming. - I can use programming software to make objects move.
Assessment by end of year two	- I can identify the benefits of using technology including finding information, creating and communicating. - I know to and can tell an adult when I see something unexpected or worrying online - I can use technology purposefully to organise and present my ideas in different ways. - I can talk about the different ways I use technology to collect information - I can tell you the order I need to do things to make something happen and talk about this as an algorithm. - I can watch a program execute and spot where it goes wrong so that I can debug it.	