KNOWLEDGE OVERVIEW GRID

	Subject: Computing				Year Group: 2	
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	THEORY – IT AROUND US	**HOUR OF CODE COURSE B**	**MICROSOFT WORD**	**HOUR OF CODE COURSE B PART 2**	**DIGITAL MUSIC**	**PICTOGRAMS**
NC Objectives Covered **(Taken directly from the National Curriculum)**	Recognise common uses of information technology beyond school 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	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, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Select, use and combine a variety of software to design and create a range of programs, systems and content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	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, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Select, use and combine a variety of software to design and create a range of programs, systems and content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Select, use and combine a variety of software to design and create a range of programs, systems and content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.. .
Digital Literacy Strand	Privacy and Security AUP Password setting	Online Relationships and Online bullying.	Health Well Being	Self-Image and Identity	Managing Online Information. Copywrite	Online reputation
Previous Knowledge **-What have children learnt previously that will support this next step?**	Year 1 – Technology around us	Hour of Code Course A	Year 1 – adding text.	House of Code Course A	Year 1- Digital painting	n/a
Misconceptions **-What are the common misconceptions in knowledge for this unit?**	Not knowing what a password does.	.Sharing the work – driver navigator. Touching the screen instead of using keyboard. That computers can read between lines – actually they just do what we ask of them	Upper and lowercase letters and the impact these can have on logging in. Letters are not in alphabetical order. The letters are all capitals. Some of the keys have more than one thing on them Not understanding that all families have different rules and that it works best when there is a set of agreed family boundaries.	Sharing the work – driver navigator. Touching the screen instead of using keyboard. That computers can read between lines – actually they just do what we ask of them		Misconceptions around the mathematical part of the unit. Ensuring that the maths is understandable for all so they can access computing fully.

Learning Sequence -Detail the learning sequence using key questions in an ordered sequence. -The questions should have a sequential build up to answer the overall learning challenge. Red= Declarative knowledge ('knowing that') Blue= procedural knowledge ('knowing how')	1. Acceptable Use Policy Lesson. Recap features of good programming – e.g good partner work (driver navigator), what good programming looks like, what to do if I'm stuck. Driver navigator video 2. What is IT? 3. How do I use IT in school? 4. Can I find out about the use of technology in the world? 5. Can I identify the positive uses of IT? 6.Can I explain the need to use IT in different ways? E Safety Warm Up content: I can explain how passwords can be used to protect information, accounts and devices. I can explain and give examples of what is meant by 'keeping things private'. I can describe some rules e.g passwords for keeping things private I can explain how some people may have devices in their home connected to the internet and give examples. E.g lights, fridges.	1. Can I learn about technology in our classroom? 2 Can I understand how we use technology? 3. Can I develop mouse skills 4. Can I use a computer keyboard? 5. Can I develop keyboard skills? 6. Do I know how to use a computer responsibly? E Safety Warm Up Content: I can give examples of how someone might use technology to communicate with others they don't know and why it might be risky I can explain who I should ask before sharing things online I can describe different ways to ask, give, deny permission online. I can explain why I have right to say now or ask for help. I can identify who can help me if something happens online without my consent I can explain how it make make others feel if I don't ask their permission before sharing. I can explain why I should always ask a trust adult before clicking yes/agree/accept online. I can explain what bullying online is I can explain why anyone who experiences bullying is not to blame. I can talk about how anyone being bullied can get help.	1. What is the purpose of word – how do computers help us with writing? Can I explore the keyboard? 2. Can I add and remove text? 3. Can I explore the toolbar? 4. Can I make changes to the text? 5. Can I explain my choices? 6. Can I decide between pencil and keyboard? E Safety Warm Up content: 7. I can explain how other people may look and act differently online and offline. 8. I can give examples of issues online that might make people sad worried etc and explain how they could get help.	1. What is a loop? 2. Can I use loops with Scratch? 3. Can I do loops with Laurel? 4. Can I make an ocean scene using loops? 5. Can I learn about Event blocks (offline)? 6. Can I create a mini project? E Safety Warm Up content: I can explain simple guidance for using technology in different environments. I can say how these rules help me.	1. Can I understand how music makes us feel? 2. Can I look at rhythms and patterns? 3. Can I see how music can be used? 4. Can I use notes and tempo? 5. Can I crate digital music? 6. Can I review and edit music? E Safety Warm Up content: I can recognise that content on the internet may belong to other people. I can describe who other people's work belongs to them. I can use simple keywords in search engines I can demonstrate how to navigate to simple webpage. I can explain what voice activated searching is. I can explain different between made up and real online. I can explain why some information may not be true.	1. What is the purpose of pictograms and can I count and compare? (offline) 2. Can I enter data? (Favourite fruit) 3. Can I create pictograms? (MiniBeast Hunt) 4. Can I understand what an attribute is? NB we have 'free version' so be careful to choose attributes that you can use within free templates. 5. Can I compare people? NB we have 'free version' so be careful to choose attributes that you can use within free templates. 6. Can I present information? Presenting information as a bar chart by using data button instead. E Safety Warm Up content: I can explain how information put online about someone can last for a long time. I can describe how anyone's online information can be seen by others. I know who to talk to if something has been put online without consent or if it is correct.

Curriculum End Points **-What will children know and be able to do by the end of the unit?** **-What will the children produce to demonstrate this knowledge?**	Children have an understanding of technology specifically in the classroom	Course B Lessons 1-6 completed. Each lesson allows for completion of Hour of Code task to meet procedural knowledge	Children create a poster using previously scaffolded content loaded onto pupil desktop. THEY ARE EMBEDDDING SKILLS FROM YEAR 1	Course B Lessons 6- 12 completed. Each lesson allows for completion of Hour of Code task to meet procedural knowledge .	Children can create their own digital music piece	Children can complete a pictogram.
Knowledge Sentences **-Using the end points, what are the key statements children need to remember by the end of the unit?** **(I know that…)** **(To share with children when it is taught during the unit)**	I know that IT stands for Information Technology and is the use of any computers to create, process or store electronic data.	I know that a computer needs a screen, a keyboard and a mouse.	I know that Microsoft Word is a piece of software used to create and present information. On Microsoft Word I can: -Add or remove text. -use the toolbar at the top of the screen to edit my work. To be safe online, I must: 1) Alert an adult if something worries me. 2) Always be with an adult when on a device. 3) Turn the off the device if something worries me. I know that acceptable behaviour when using technology is: 1) Look after the device. 2) Listen to the adult who will help me. 3) Not to talk to strangers online. 4) Use respectful language.	I know that algorithms are a set of rules to be followed in order that can help when problem-solving. I know that the features of good programming include: 1) thinking about the most efficient way to achieve an outcome. 2) be able to test that your code works effectively. To make my programme work I must: 1. Apply loops	I know that a rhythm is a repeated pattern of sound. I know that a note is a symbol to tell us pitch and duration. I know that a tempo is the speed of which the music is played.	I know that a pictograms are types of charts and graphs that use icons and images to represent data. I know that an attribute is something that defines a property of an object.
Key Vocabulary **(To share with children and add to working walls/knowledge mats)**	Event blocks Block coding Debug Algorithim	Mouse Keyboard Space bar etc.	Event blocks Block coding Debug Algorithim		Sounds, patterns, rhymthm,melody, computer composition	Counting, comparing, attribute, pictogram.

What does this look like at Bramhope?							
	Enrichment Activities (trips, residentials, speakers, SMSC)	Digital Leader assembly	Digital Leader assembly Parent Workshop linked to Parents evening.	Change One Thing Competition Digital Leader Parent Presentation ' Parenting in a digital world'. (SharePoint/Annual Events)	Digital Leader assembly	Digital Leader assembly	Digital Leader assembly
	Physical Resources (artefacts)	1 Techonology Around Us Digiduck Teach Computing Files on Theory Unit	Hour of Code Course B Digiduck	Teach Computing Digital Writing PLEASE NOTE THIS UNIT IS SHARED YEAR ½. WORK ACROSS YEAR GROUPS SO SKILLS TAUGHT IN YEAR 1 THEN EMBEDDED AND PRACTISED IN YEAR 2.	Hour of Code Course B Digiduck	Digital Music PLEASE NOTE THIS IS A NEW UNIT – LINK TO PLANNING BELOW IS A GUIDE BUT MAY NOT FIT DIRECTLY WITH MS PAINT ON LAPTOPS – IT WILL NEED APADPTING POTENTIALLY AND SLIDES AMENDING FOR MS PAINT. Digiduck	Pictograms year 2 Use following website to load Pictograms. It is not a paid for website so please note if there are issues with functionality. J2E Pictogram Website PLEASE NOTE THIS IS A NEW UNIT – LINK TO PLANNING IS A GUIDE BUT WILL NEED APAPTING IN ADVANCE OF TEACHING. Digiduck Digiduck .
	Cross Curricular learning (Include opportunities for writing and quality texts)	NA	NA	Change One Thing Competition Link	NA	Link to art - Kadinsky.	

	Local Learning including outdoor learning	NA					
	Opportunities for cultural Diversity	NA				PowerPoint linked to history/science/geography topic.	