COMPUTING									
BIG IDEAS	**Computer Science (Taught discreetly)**			**Information Technology (Cross curricular)**						**Digital Literacy**
Building Blocks	Programming	Vocabulary	Computers & Networks	Text & Design	Image/ Film/ Animation	Sound/ Music Composition	Research (Internet)	Data Sorting (KS1)/ Logging (KS2)	Data Spreadsheet (KS2)	Online Safety
	Programing	Vocabulary	Computers & Networks	Text and design	Image/ Film/ Animation	Sound/ Music Composition	Research (Internet)	Data Sorting/ Logging	Data Spreadsheet	Online safety

	Computer Science			Information Technology						Digital Literacy
Class	Programming	Vocabulary	Computer & Networks (KS2)	Text & Design	Image/Film/Animation	Sound/Music Composition	Research (Internet)	Data Sorting (KS1)/logging (KS2) Data Spreadsheet (KS2)		Online Safety
Wrens: Reception (EYFS) Year 1	Follow a set of instructions to move forwards, backwards and to make turns. (Unplugged) Know how to make a beebot to move 1 and	Children are able to use the list of vocabulary in their explanation and understand the different terms used in their lessons.	Name a type of technology in the classroom. Name a type of technology in our school. Locate a mouse, keyboard	Use a device to interact with age appropriate apps e.g . using Draw and Tell app. Know how to use a mouse to make lines	Use technology to take photos/films.	Use technology to listen to music. Use technology to make music.	Use a QR code to engage with a website. Know that they can use technology to find information online.	To know how to read a simple block graph. To name a group of objects using a label according to property (including size, shape or colour.)		To recognise kind and unkind behaviour. To be able to identify the positives and negatives when using technology. To understand how your

then 2 steps forwards / backwards. Be able to make an icon move forward 5 steps and back 5 steps. Know that an algorithm is a list of steps. Know the 4 commands for the Beebot and use in a sequence including forwards/ backwards. Explain what a start block does		and monitor on a desktop computer. Name 3 types of technology. Locate the on switch of a desktop PC. Know that the shift key creates a capital letter.	and squiggles. Know the icons for the shape and line tools to draw a picture. Explain how to change the colour and size of the paintbrush. Know that the space keys make a space and backspace deletes text. Know where the font and size icons are and that they change					online activity can affect others.

				font size and make the text bigger or smaller.					
	in a program. Name directional blocks which move a sprite.								
Robins Years 1/2	Know the 4 commands for the Beebot and use in a asequence including forwards/backwards. Explain what a start block does in a program. Name directional blocks which move a sprite. Write a program for	Children are able to use the list of vocabulary in their explanation and understand the different terms used in their lessons.	Name 3 types of technology. Locate the on switch of a desktop PC. Know that the shift key creates a capital letter. Know that if something online is upsetting, it needs to be reported to an adult. Name examples of	Know the icons for the shape and line tools to draw a picture. Explain how to change the colour and size of the paintbrush. Know that the space keys make a space and backspace deletes text.	Explain how you can take/capture a digital photo. Describe how some tools can be used to change an image. Identify which photos are real and which have been changed.	Show how music is made from a series of notes. Show how you can create a rhythm pattern on a computer/device and how it can be changed. Show how you can change pitch on a computer/device.	Be able to use a scroll bar on webpages.	To name a group of objects using a label according to property (including size, shape or colour.) To understand, use and read a tally chart. To use a program to create a pictogram.	To be able to identify the positives and negatives when using technology. To understand how your online activity can affect others. To know the risks of sharing information without permission To understand the type of

the Beebot using the 4 commands in a sequence including forwards/ backwards/ left turn/ right turn. Know when and how to debug programs. Know a series of instructions (usually on a computer) is called an algorithm. Be able to move the sprite and manipulate the controls by setting conditions.		how IT helps to improve our word. e.g. traffic lights and how they keep us safe on the road.	Know where the font and size icons are and that they change font size and make the text bigger or smaller. Be able to add text and an image. Be able to save and retrieve work. Explain how we can present information using a computer.				information you should/shoul d not share online.

	E.g. Jump high. Change the background on Scratch. Create 2 sprites and make a conversation happen between them. Know how to save and retrieve projects. Say one way a project could be improved.								
Woodpeckers Years 3/4	Explain what a sprite is. Be able to identify sprites and	Children are able to use the list of vocabulary in their explanation and	Identify at least 2 networked devices around them, (Network	Explain the difference between text and images.	Be able to explain that an animation is a sequence	Identify the uses for recorded audio (music ,	Be able to use the internet to gather research for cross	To give an example of an open-ended question and a yes/ no question. To know that the objects in a branching	To understand the difference between safe and risky

backgrounds in the Scratch program. Know that event blocks are yellow and movement blocks are darker blue on Scratch. Be able to identify patterns of repetition in real life. (brushing teeth, dance) Explain how to use the repeat blocks in Scratch. Be able to explain the uses of	understand the different terms used in their lessons.	switch, server, Wire- less Access Point WAP) Be able to explain that different devices have different purposes. Know that websites and their content are created by people. Know that information found online is not necessarily honest, accurate or legal. Know what a URL	Be able to demonstrate how to change font size and colour on a document.	of pictures or images. Be able to name a program used to make stop, frame animation, (e.g. iMotion). Explain the term 'onion skinning' when used to create an animation. Explain/show how you can add other media to an animation. Explain some ways in how you can edit a photo.	podcasts etc.) Explain the ways that audio can be recorded and how to make it of high quality.	curricular subjects. Be able to copy and save images from the internet.	data- base need to be split into similar sized groups. To be able to explain the reasons why somebody may want to change the composition of an image. To be able to give examples of positive and negative effects that editing an image may have. Be able to explain the uses for gathered data. Be able to explain the different ways data might be gathered.	choices online. To know why passwords are important. To recognise the key values that are important in positive online relationships. To identify how and who to ask for help.

	repetition in programming and link this with the drawing of various shapes.		address is and how to access a website.						
Owls Years 4/5	Be able to identify patterns of repetition in real life. (brushing teeth, dance) Explain how to use the repeat blocks in Scratch. Be able to explain the uses of repetition in programming and link this with the drawing	Children are able to use the list of vocabulary in their explanation and understand the different terms used in their lessons.	Know that websites and their content are created by people. Know that information found online is not necessarily honest, accurate or legal. Know what a URL address is and how to access a website.	Know that vector drawing has different layers / shapes. Know drawing tools can be used to produce different outcomes.	Explain/show how you can add other media to an animation. Explain some ways in how you can edit a photo. Recognise videos are moving images which may include sound. Name digital devices that	Identify the uses for recorded audio (music , podcasts etc.) Explain the ways that audio can be recorded and how to make it of high quality.	Be able to use the internet to gather research for cross curricular subjects. Be able to copy and save images from the internet.	To be able to explain the reasons why somebody may want to change the composition of an image. To be able to give examples of positive and negative effects that editing an image may have. Can explain that programs can be used to compare data. Can explain how information can be grouped. Can explain what a 'field' and 'record' in a database.	To recognise the key values that are important in positive online relationships. To identify how and who to ask for help. To recognise possible influences and pressures that may present themselves online To know when to act

of various shapes. Know that a loop can be stopped when a condition is met. Explain a loop can be used to repeatedly check when a condition has been met (or not). Explain how selection is used in computer pro- grams. Explain how selection effects the flow of a program.		Describe that a computer system uses an input, process and an output. Explain that different media, files and information can be shared on the internet either privately or publicly. Explain how the internet enables effective collabo- ration.		can record video. Identify what makes an effective / appealing video.			Be able to explain the uses for gathered data. Be able to explain the different ways data might be gathered.	upon negative online behaviours.

| Peregrines Years 5/6 | Know that a loop can be stopped when a condition is met.

Explain a loop can be used to repeatedly check when a condition has been met (or not).

Explain how selection is used in computer pro- grams.

Explain how selection effects the flow of a program.

Define a 'variable' as | Children are able to use the list of vocabulary in their explanation and understand the different terms used in their lessons. | Describe that a computer system uses an input, process and an output.

Explain that different media, files and information can be shared on the internet either privately or publicly.

Explain how the internet enables effective collabo-ration.

Explain that search results are ordered. | Know that vector drawing has different layers / shapes.

Know drawing tools can be used to produce different outcomes.

Name 3D shapes needed to create a model of a real world objects.

Explain why we might represent 3D objects on a computer.

Use a range of different | Recognise videos are moving images which may include sound.

Name digital devices that can record video.

Identify what makes an effective / appealing video. | Use programmes/apps to create music e.g. GarageBand. | Define what is meant by the terms, 'copyright' and 'fair use'.

Describe how pages of a website are linked together (through the use of hyperlinks).

Explain what a navigation path is and why it might be useful when creating a webpage.

Use the internet to help with research for cross | Can explain that programs can be used to compare data.

Can explain how information can be grouped.

Can explain what a 'field' and 'record' in a database.

Can explain that objects can be described using data.

Knows that a formula must start with an = sign.

Knows that data an be best represented in tables or graphs. | To recognise possible influences and pressures that may present themselves online

To know when to act upon negative online behaviours. To understand the relationship between online and offline behaviours and their impact on myself and others. To understand and be able to name healthy |
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something changeable.

Explain why a variable is used in a program.

Explain that some devices need to have sensors in order to help it make decisions about how many jumps have been made.

Explain that what a device senses can change the flow of a program. | | Name a variety of ways of communicating over the internet, (email, social media post, comment field, blog, vlog etc.) | programmes to present work.

Name the common features of a webpage. | | | curricular subjects.

Be able to copy and save images from the internet. | | strategies when using technology and going online |