

## Whole School Computing Overview

All areas are linked to the correct planning unit within the document.

	1	2	3	4	5	6
Autumn - Digital Literacy	<a href="#">e-Safety online – who can help you</a>	<a href="#">e-Safety - searching and interacting with online “friends”</a>	<a href="#">e-Safety – sharing information online as good digital citizens</a>	<a href="#">E-Safety – cyberbullying and effective safe searches</a>	<a href="#">e-Safety – online security (passwords spam, privacy policies)</a>	<a href="#">e-Safety – relationship and trust</a>
Spring – Computer Science	<a href="#">Coding</a>	<a href="#">Complex coding with extended algorithms and debugging</a>	<a href="#">Building repeated patterns and 2d shapes using coding</a>	<a href="#">Sensors and coding to create flashing sequence</a>	<a href="#">Coding – create a maze</a>	<a href="#">How data transfer works – blogging and email</a>
Summer - ICT	<a href="#">Presentation using graphics and text (poster)</a>	<a href="#">Simple animations using cameras and mics</a>	<a href="#">Presentation using graphics and text (Sway)</a>	<a href="#">Stop motion animation</a>	<a href="#">Green screen presentations</a>	<a href="#">Spreadsheets to collate and display data</a>

### Breakdown of objectives and tasks

Year 1		LO:	Digital Activity	Non Digital Activity	Other items to cover through cross curricular learning	
Y1 Aut Digital Literacy	Pupils should be taught to: • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content on the internet or other online technologies	<ul style="list-style-type: none"> <li>Pupils learn that the Internet is a great place to develop rewarding online relationships and learn to recognise websites that are good for them to visit; but they also learn to be cautious and to check with a trusted adult before sharing private</li> </ul>	I know where I can visit safely online	<a href="https://esafety.gov.au/education-resources/classroom-resources/zippeps-astro-circus">https://esafety.gov.au/education-resources/classroom-resources/zippeps-astro-circus</a>	Knowledge harvest, how do we stay safe in school and other places? How might these ideas transfer to online? Why? Rules – discuss what rules are and why we have them. How do they help us in our lives. Think about classroom rules and how they help us to stay safe. What rules do we have for staying safe online? Visiting websites are just like visiting places. Children to make a class set of rules for staying safe online. Refer to our school smart / think rules	<ul style="list-style-type: none"> <li>Create at least 1 digital piece of written work using font s and changing sizes, colours and fonts styles</li> <li>At least 1 digital image using paint or another imaging app.</li> </ul>
			I know about personal information and when to share it	Read <a href="https://www.childnet.com/ufiles/Digiducks-Famous-Friend---Childnet-International.pdf">https://www.childnet.com/ufiles/Digiducks-Famous-Friend---Childnet-International.pdf</a> story about keeping personal info safe <a href="https://www.esafety.gov.au/educators/classroom-resources/be-secure/quiz">https://www.esafety.gov.au/educators/classroom-resources/be-secure/quiz</a> play and use as your screens as questions are illustrated. Discuss the questions and select the answers.	<a href="https://www.esafety.gov.au/sites/default/files/2020-10/Be%20Secure%20Memory%20Game.pdf">https://www.esafety.gov.au/sites/default/files/2020-10/Be%20Secure%20Memory%20Game.pdf</a> Memory game (pairs) to highlight the different aspects of keeping safe.	
			I can search safely	Using a safe search site (SWGfL - Swiggle (search engine & resource site <a href="http://www.swiggle.org.uk/">http://www.swiggle.org.uk/</a> ) Google – Safesearchkids (Search engine for children <a href="http://www.safesearchkids.com/google">http://www.safesearchkids.com/google</a>	Create a mindmap of words that can be used to locate information – discuss the words chosen – do they relate to just this topic or other topics. Ask what could happen if they used a word that may locate other information too? How	

		<p>information</p> <ul style="list-style-type: none"> <li>Pupils are introduced to the concept that real people send messages to one another on the Internet and learn how messages are sent and received.</li> </ul>		<p><a href="#">/#.U3SZF_n-NzU</a> ) children are to locate images and facts relating to the topic. These can be copied and pasted into a document which can be saved into pupils folders.</p>	<p>would that impact searches? Could it lead to problems?</p>	
			<p>I can claim ownership of my work</p>	<p>Who owns things on the internet? If you find it do you own it or does it still belong to the person who made it? Ask children what they write on their work in the classroom, Open the images from the search lesson. Can children recreate these and add their name digitally so it is always theirs?</p>	<p>Who owns things on the internet? If you find it do you own it or does it still belong to the person who made it? Ask children what they write on their work in the classroom,</p>	
			<p>I can communicate safely online with people I know</p>	<p>Use Teams and ask children how they know who they are actually talking to. Can you change your name online? Do people always use their real names? Open discussion space and allow children to contribute their ideas.</p>	<p>Watch TUK Jessie and Friends ep 3 (in computing folder – resources) Discuss stranger Danger – who do you talk to when you are out and about – how can you tell these people are safe? How do you know when you are online? If you don't know someone can they be telling you fibs online? Do you look like you Dojo or TTRS avatars? What rules are there for keeping safe? Think back through the other lessons this term. Complete pages 12 and 16 from this booklet <a href="https://www.betterinternetforkids.eu/documents/167024/198402/UK+-+Activity+book+-+English+-+June+2015.pdf/e517ac05-2b07-4c6a-87d1-6ae70f4e5bbc">https://www.betterinternetforkids.eu/documents/167024/198402/UK+-+Activity+book+-+English+-+June+2015.pdf/e517ac05-2b07-4c6a-87d1-6ae70f4e5bbc</a> or create a poster illustrating who you should and should not talk to online.</p>	

Y1 Spring Computer science	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>understand what algorithms are; how they are implemented as programs on digital devices and that programs execute by following precise and unambiguous instructions</li> <li>create and debug simple programs</li> </ul>	<p>For instance:</p> <ul style="list-style-type: none"> <li>Pupils learn to program a basic floor turtle such as a BeeBot to navigate increasingly complex routes and are able to debug their instructions when the turtle does not reach the intended destination</li> <li>Pupils learn to program an onscreen app such as BeeBot or Kodable to complete</li> </ul>	I can program a bee bot	Use bee bot iPad app	Children to use the bee bots and rehearse the skills of making them move, turn etc	<ul style="list-style-type: none"> <li>Create at least 1 digital piece of written work using fonts and changing sizes, colours and fonts styles and adding an image</li> <li>At least 1 digital image using paint or another imaging app.</li> </ul>
			I can plot a route	Use bee bot iPad app	Children to look at bee bot maps (colour splat and 3 little pigs in resources folder, others here <a href="https://www.primarytreasurechest.com/teachingresources/category/bee-bot-mats.html">https://www.primarytreasurechest.com/teachingresources/category/bee-bot-mats.html</a> or <a href="https://www.twinkl.co.uk/resources/home-key-stage-1-subjects/ict/ict-bee-bot-jackets">https://www.twinkl.co.uk/resources/home-key-stage-1-subjects/ict/ict-bee-bot-jackets</a> )	
			I can plot more complicated algorithms with more than 5 steps	Use bee bot iPad app	Children to look at bee bot maps (colour splat and 3 little pigs in resources folder, others here <a href="https://www.primarytreasurechest.com/teachingresources/category/bee-bot-mats.html">https://www.primarytreasurechest.com/teachingresources/category/bee-bot-mats.html</a> or <a href="https://www.twinkl.co.uk/resources/home-key-stage-1-subjects/ict/ict-bee-bot-jackets">https://www.twinkl.co.uk/resources/home-key-stage-1-subjects/ict/ict-bee-bot-jackets</a> )	
			I can identify and debug algorithms	Use bee bot iPad app	Children to look at bee bot maps (colour splat and 3 little pigs in resources folder, others here <a href="https://www.primarytreasurechest.com/teachingresources/category/bee-bot-mats.html">https://www.primarytreasurechest.com/teachingresources/category/bee-bot-mats.html</a> or <a href="https://www.twinkl.co.uk/resources/home-key-stage-1-subjects/ict/ict-bee-bot-jackets">https://www.twinkl.co.uk/resources/home-key-stage-1-subjects/ict/ict-bee-bot-jackets</a> )	

		a set task and are able to debug their instructions when the turtle does not reach the intended destination			Can you give children a set of algorithms which has a mistake in and ask them to correct the error.	
Y1 Summer ICT	Pupils should be taught to: • use technology purposefully to create, organise, store, manipulate and retrieve digital content	<ul style="list-style-type: none"> <li>Digital Publishing: Pupils learn to use basic word processing package and to write and illustrate a short story</li> <li>Presentations: Pupils learn to make simple</li> </ul>	I can use a paint program to create marks and make digital pictures	Children use paint (windows) or <b>?????</b> (iPads); children will need to explore the tools and the marks they can make. Give children the job of defining the tools with their partners.		<ul style="list-style-type: none"> <li>Create at least 1 digital piece of written work using fonts and changing sizes, colours and fonts styles and adding a picture</li> <li>At least 1 digital image using paint or another imaging app.</li> </ul>
			I can create a digital image	Linking to topic or literacy: Children use paint (windows) or <b>?????</b> (iPads) to create a digital image. Teacher to model saving into pupils own folders and ensure images are saved (windows) iPads will need to have a consistent use of the same iPad to ensure image retrieval for next lesson		
			I can type with two hands	Open Lesson using dance mat typing (this can also be set as home learning for dojos) Save the link in the pupil drive		

		<p>presentations</p> <ul style="list-style-type: none"> <li>Graphics: Pupils learn to create a simple digital painting</li> </ul>		<p>or model how to open from google. Linking to topic children are to type up sentences from their topic or literacy work. Children use powerpoint (windows) or ???? (iPads) Teacher to model saving into pupils own folders and ensure work is saved (windows) iPads will need to have a consistent use of the same iPad to ensure image retrieval for next lesson</p>		
			I can format my text	Children to use the fonts, sizing and colour options within the chosen app to ensure their text is interesting and readable.		
			I can present my work digitally	Children to retrieve their image and add to presentation. Ask children to share their work and talk class through their illustration and text.		
Year 2						
Y2 Aut  Digital Literacy	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>use technology safely and respectfully, keeping personal information private; identify</li> </ul>	<ul style="list-style-type: none"> <li>They recognise that it may be difficult to distinguish between someone who is real and someone who is not</li> </ul>	<p>I can stay safe online</p>		<p>Be a safety superhero – what can you do to teach children how to stay safe. Give your superhero a rule for staying safe. Watch the y2 Smartie story and pick out the key rules</p>	<ul style="list-style-type: none"> <li>Create at least 1 digital piece of written work using fonts and changing sizes, colours and font styles. Children to save and reopen</li> <li>At least 1 digital image using paint and a photograph or another imaging app.</li> </ul>
			I understand I leave a digital footprint	<p><a href="https://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew/chapter1">https://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew/chapter1</a> and <a href="https://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew/chapter2">https://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew/chapter2</a></p>		

	where to go for help and support when they have concerns about content on the internet or other online technologies	<ul style="list-style-type: none"> <li>• Pupils are introduced to the basics of online searching</li> <li>• Pupils learn to explore websites and to say whether they like them or not and why</li> </ul>	I can identify cyberbullying		<p>Watch <a href="https://www.webwise.ie/teachers/myself/lesson2/">https://www.webwise.ie/teachers/myself/lesson2/</a> Explain to the students that it's clear that Siobhan felt bad about what she and her friends did but she didn't do anything to stop the bullying. Have the students stand in two parallel lines to form a Conscience Alley. Then pick a student volunteer to play the role of Siobhan.</p> <p>Have all of the students reflect, quietly and individually, on what Siobhan could have done to stop the bullying</p> <p>Then have the student playing Siobhan walk down the Conscience Alley. As she does so each of the students should whisper advice on what she could do to help stop the bullying. After walking down the Conscience Alley the student playing the role of Siobhan should say what advice she had been given on stopping the bullying. This point might then lead to a short discussion on the topic of how bystanders can help in bullying situations.</p>	
			I can talk about sites I do and do not like	Show a list of popular websites and apps (will need to be updated with the interests of your class)– can the children identify the ones they have used or not used – are they safe, do they like them. Create a popple with different colour boxes for like and dislike	Show a list of popular websites and apps (will need to be updated with the interests of your class)– can the children identify the ones they have used or not used – are they safe, do they like them. Sort appropriate and inappropriate	

			I can identify when a site or person is not safe	Complete the quiz <a href="https://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew/are-you-smart-online-quiz">https://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew/are-you-smart-online-quiz</a>	
Y2 Spring Computer science	<ul style="list-style-type: none"> <li>use logical reasoning to predict the behaviour of simple programs</li> <li>recognise common uses of information technology beyond school</li> </ul>	<ul style="list-style-type: none"> <li>Pupils use a more complex turtle with standard units to navigate increasingly complex routes, and are able to debug their instructions when the turtle does not reach the intended destination</li> <li>Pupils learn to use a simple graphical programm</li> </ul>	I understand algorithm input needs to be specific	Login: student8199 / falmouth      espresso coding <a href="https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56">https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56</a> pick a level 1 adventure for on the move then complete a simple input(some may suit the topic or class more than others)and complete the level	<ul style="list-style-type: none"> <li>Create at least 1 digital piece of written work using font s and changing sizes, colours and fonts styles. Children to learn to save and reopen</li> <li>At least 1 digital image using paint and a photograph or another imaging app.</li> </ul>
			I can explain how programs respond to different sorts of inputs	Login: student8199 / falmouth      espresso coding <a href="https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56">https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56</a> pick a level 2 adventure for different inputs and buttons and instructions (some may suit the topic or class more than others)and complete the level  Discuss any instances where the algorithm has not had the intended output – what was wrong? What did you do to rectify it?	
			I can create sequences with conditional events	Login: student8199 / falmouth      espresso coding <a href="https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56">https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56</a> pick a level 3 adventure for sequence and animations and conditional evetns (some may suit the topic or class more than others)and complete the level Discuss any instances where the algorithm has not had the intended output – what was wrong? What did you do to rectify it?	
			I can use variables and repetition to sequence events	Login: student8199 / falmouth      espresso coding <a href="https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56">https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56</a> pick a level 4 adventure for variables and repetition and loops (some may suit the topic or class more than others)and complete the level Discuss any instances where the algorithm has not had the intended output – what was wrong? What did you do to rectify it?	



		ing language such as Logo, Scratch or Turtle to navigate around the screen	I can talk about random selection and numerical simulaiton	Login: student8199 / falmouth      espresso coding <a href="https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56">https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56</a> pick a level 5 adventure for speed, direction and coordinates and Random numbers (some may suit the topic or class more than others)and complete the level Discuss any instances where the algorithm has not had the intended output – what was wrong? What did you do to rectify it?	
			I can manipulate my algorithms for specific outcomes	Login: student8199 / falmouth      espresso coding <a href="https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56">https://coding.discoveryeducation.co.uk/block/learn?locale=en-gb#different-sorts-of-inputs-5e5d0d01570d8d36569ddf56</a> pick a level 6 adventure for more complex variables and other properties (some may suit the topic or class more than others)and complete the level Discuss any instances where the algorithm has not had the intended output – what was wrong? What did you do to rectify it?	
Y2 Summer ICT	Pupils should be taught to: • use technology purposefully to create, organise, store, manipulate and retrieve digital content	<ul style="list-style-type: none"> <li>• Animation s: Pupils learn to make a simple animation -Puppet Pals</li> <li>• Media: Pupils learn to use digital cameras and microphones for a purpose</li> </ul>	<p>I can create animated characters</p> <p>I can design animated backdrops and settings</p> <p>I can make the character move to tell a story</p> <p>I can record audio to tell my story</p>	Using puppet pals as your tool link this unit to a literacy or historical unit to tell a fictional story or the historical bio of a significant person	<ul style="list-style-type: none"> <li>• Create at least 1 digital piece of written work using font s and changing sizes, colours and fonts styles. Children to learn to save and reopen</li> <li>• At least 1 digital image using paint and a photograph or another imaging app.</li> <li>• Working with data: Pupils learn to create and use a pictogram</li> </ul>

		•	I can add audio to my animation and complete my animation			
Year 3						
Y3 Aut Digital Literacy	Pupils should be taught to:	<ul style="list-style-type: none"> <li>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable</li> </ul>	<ul style="list-style-type: none"> <li>Pupils learn that the Internet is a great place to develop rewarding online relationships and learn to recognise websites that are good for them to visit; but</li> </ul>			<ul style="list-style-type: none"> <li>Create at least 2 digital piece of written work ( look at PowerPoint for a project) using fonts and changing sizes, colours and fonts styles. Children to learn to save and reopen</li> <li>Photo editing and image use within work</li> </ul>

	<p>behaviour; identify a range of ways to report concerns about content and contact</p>	<p>they also learn to be cautious and to check with a trusted adult before sharing private information</p> <ul style="list-style-type: none"> <li>• Pupils learn to make good passwords for their accounts, learn about spam and how to deal with it. They begin to understand the implications for the information that they share</li> </ul>				

		<p>online and how some websites might use that information without their knowledge</p> <ul style="list-style-type: none"><li>• Pupils are introduced to their roles as digital citizens in an online community, where they reflect on how they are responsible not only for themselves but for others, in order to create a safe and comfortable</li></ul>				
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		<p>environment</p> <ul style="list-style-type: none"> <li>Pupils learn that the Internet is a public space and then develop the skills to protect their privacy and respect the privacy of others</li> </ul>				
Y3 Spring Computer science	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>design write and debug programs that accomplish specific</li> </ul>	<ul style="list-style-type: none"> <li>Pupils learn to use graphical programming language, such as Scratch or Logo to draw</li> </ul>	I can program using logo	<a href="https://www.transum.org/Software/Logo/">https://www.transum.org/Software/Logo/</a>		<ul style="list-style-type: none"> <li>Create at least 2 digital piece of written work ( look at PowerPoint for a project) using fonts and changing sizes, colours and fonts styles. Children to learn to save and reopen</li> </ul>
			I can draw 2d rectilinear shapes using logo	<a href="https://www.transum.org/Software/Logo/">https://www.transum.org/Software/Logo/</a> complete the challenges		
			I can draw diagonal lines using turtles	<a href="https://www.transum.org/Software/Logo/Level2/?Level=2">https://www.transum.org/Software/Logo/Level2/?Level=2</a>		

	<p>goals,...</p> <p>..solve problems by decomposing them in smaller parts</p> <ul style="list-style-type: none"> <li>use sequence, selection and repetition in programs</li> </ul>	<p>regular 2D shapes.</p> <ul style="list-style-type: none"> <li>Pupils add loops or procedures to create a repeating pattern</li> </ul>	<p>I can draw 2d shapes with different angles using logo</p>	<p><a href="https://www.transum.org/Software/Logo/Level2/?Level=2">https://www.transum.org/Software/Logo/Level2/?Level=2</a> complete the challenges</p>		<ul style="list-style-type: none"> <li>Create a table to display information and add to presentation or written doc</li> <li>Photo editing and image use within work</li> </ul>
			<p>I can repeat logo commands</p>	<p><a href="https://www.transum.org/Software/Logo/Level2/Default.asp?Level=3">https://www.transum.org/Software/Logo/Level2/Default.asp?Level=3</a></p>		
			<p>I can repeat shapes and patterns to complete repeated images</p>	<p><a href="https://www.transum.org/Software/Logo/Level2/Default.asp?Level=3">https://www.transum.org/Software/Logo/Level2/Default.asp?Level=3</a> complete the challenges</p>		
Y3 Summer ICT	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>select, use and combine a variety of software (including</li> </ul>	<ul style="list-style-type: none"> <li>Digital Publishing: Pupils learn how to use software to create an e-book, brochure</li> </ul>	<p>I can collect information on a subject</p>	<p>Collect the data on a table on the iPads. Choose a data collection based around your topic</p>	<p>Using your topic can you collect relevant data which can be displayed on a tally, Children can collate the data.</p>	<ul style="list-style-type: none"> <li>Create at least 2 digital piece of written work ( look at PowerPoint for a project) using fonts and changing sizes, colours and fonts styles. Children to</li> </ul>
			<p>I can collect images and design graphics in an art program</p>	<p>Using google and safe search children need to find images to illustrate the data and would help the children to present the data</p>		

internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	<ul style="list-style-type: none"> <li>Graphics: Pupils learn how to take, adapt or create images to enhance or further develop their work</li> </ul>	I can use flip book to create a digital template	Using Sway children to build a template and begin to lay out there data finding – think about the introduction / why collected, the findings, the conclusion		<p>learn to save and reopen</p> <ul style="list-style-type: none"> <li>Create a graph and table to display information and add to presentation or written doc</li> <li>photo editing and image use within work</li> </ul>
		I can add my images and text to create my digital brochure	Add in text to the relevant sections using the data collected		
		I can add my images and text to create my digital brochure	Add in images found and saved previously to the Sway presentation		

Year 4						
Y4 Aut Digital Literacy	Pupils should be taught to: use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content	Pupils explore how they interact with others and are introduced to the concept of cyberbullying. They also learn how to communicate to be a responsible member of a connected culture effectively in order to prevent miscommunication Pupils are introduced to the basics of online searching, including how to use effective keywords. They also learn to	LO: I can recall the SMART rules		Create you own digital poster for the SMART rules with the basic meanings and the explanations.	<ul style="list-style-type: none"> <li>• Create at least 2 digital piece of written work ( look at PowerPoint for a project) using fonts and changing sizes, colours and fonts styles. Children to to save and reopen</li> <li>• Create a graph and table to display information and add to presentation or written doc</li> <li>• photo editing and image use within work</li> <li>• create algortihms for a science or topic based resources (flashing lights in DT/science)</li> </ul>
			Can I follow the SMART rules?	Complete some topic or other subject based research – keep the rules next to you and tick the ones you use every time you use them.		
			LO: I can identify ways to stay safe online	Watch this song – can you create a short music video to explain how to stay safe in some of the scenarios we came up with? (perhaps link to teacher organised green screening or videoing)	Watch this song – can you create a short music video to explain how to stay safe in some of the scenarios we came up with?  <a href="https://youtu.be/GHW6O3Mf0qE">https://youtu.be/GHW6O3Mf0qE</a>	



		conduct searches that provide them with the most helpful and relevant information				
Y4 Spring Computer science	Pupils should be taught to: <ul style="list-style-type: none"> <li>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and</li> </ul>	<ul style="list-style-type: none"> <li>YPupils learn to sequence instructions, for instance to create an program for a sensor or data collecting device (weather, light etc)</li> <li>Pupils design a gadget which reacts and would</li> </ul>	I can understand data and ways it may be used.	Look at the slides 16 or 17. Explain that the image represents a famous person of their choosing and that they are going to work in pairs to put facts about the person around the image. Allow research and remind children that not all sources are reliable. What data do we share about ourselves? Where do we share it. Complete non – digital task	What data do we share about ourselves? Where do we share it. What are things we should be very careful about sharing? Do you save your parents card on your PS4 account? Can that be used if stolen? Could it cause problems? Complete slide 11 – who had my data	
			I can understand how sensors collect data		Invite students to recap in pairs what data is and the types of data that they used in the previous lesson (name, age, address, data of birth).Ask pupils to consider what data they could collect about the school ( <b>slide 2</b> ). Focus on the data name <i>devices with sensors</i> . Invite suggestions on the term sensors and establish that sensors are devices that sense changes in a given field (light, temperature, movement) and make something happen when a change is sensed ( <b>slide 5</b> ).	

	<p>programs</p> <ul style="list-style-type: none"> <li>recognise common uses of information technology beyond school</li> </ul>	<p>improve the skill</p>				
			<p>I can read algorithms</p>		<p>Before starting the lesson, it would be useful to have a method of making the class darker if this cannot be done simply by turning lights, closing blinds, etc.</p> <p>Use <b>slide 3</b> to display an algorithm. Invite pupils' suggestions on what the algorithm is instructing them to do and when they will do each action. Turn the lights on and off to make the classroom dark and light and get pupils to carry out the actions in the algorithms on <b>slide 3 and 4</b>.</p> <p>Display the structure of the algorithm and ask pupils to write a simple algorithm that uses the level of light as a condition (<b>slide 5</b>).</p>	
			<p>I can configure block algorithms</p>	<p><a href="https://classroom.microbit.org/createactivity/makecode">https://classroom.microbit.org/createactivity/makecode</a> preset your challenges by looking at the algorithms using blocks here <a href="https://classroom.microbit.org/createactivity/makecode/">https://classroom.microbit.org/createactivity/makecode/</a> follow the instructions and share the task with the class,</p>	<p>Re watch the time-lapse video ( Slide 6) of a street light turning on and off. Explain to pupils that this can be seen as an example of <b>selection</b>. Invite suggestions on what the condition needs to be met is and what to do if it is/isn't met. Focus on responses that indicate the condition as being linked to the light level (<i>is it dark?</i>) and the actions are to turn the light on or off</p>	

					according to the question. Complete the algorithm support sheet	
			I can write algorithms to invent	See non digital and then test within microbit	Show <b>slide 13</b> to pupils and explain that they are going to design a gadget that can that either responds to changes in light level. Discuss how their design should be a representation of the gadget's main features and purpose. Ask pupils to recall the term used in computing whereby the main information is focused on and extra detail is ignored ( <b>abstraction</b> ). Examples could include toys that light up when it gets dark, a glass that keeps a soft drink at the same temperature, a book that starts glowing when the lights are turned so it can be read in the dark, socks with heat pads that come on when the temperature goes below a certain level. As well as creating a labelled drawing of their design, highlight they need to write an algorithm to explain how their gadget will make use of selection and sensors.	

<p>Y4 Summer ICT</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li> </ul>	<ul style="list-style-type: none"> <li>• Animation s: Pupils learn how to develop a storyboard and then create a simple animation using for instance ‘Puppet Pals’ or ‘Stop Motions’ Animation ’</li> <li>• Sound and video: Pupils record and edit media to create a short sequence</li> <li>• Working with data: Pupils learn to search, sort and graph</li> </ul>	<p>I can complete a short story board</p>		<p>Possible link to literacy – ask children to complete a fiction or non fiction story board detailing a moment in history linked to topic or a text they are familiar with or have innovated</p>	<ul style="list-style-type: none"> <li>• Create at least 2 digital piece of written work ( look at PowerPoint for a project) using fonts and changing sizes, colours and fonts styles. Children to to save and reopen</li> <li>• Create a graph and table to display information and add to presentation or written doc</li> <li>• photo editing and image use within work</li> <li>• create algorithms for a science or topic based resources (flashing lights in DT/science)</li> </ul>
			<p>I can make my character and ensure they are poseable in a stop motion video</p>	<p>Children to create plasticine figures and ready to create their story with, use the stop motion studio app to begin to rehearse creating movement</p>		
			<p>I can record a stop motion video with sound</p>	<p>Children to complete their movie using the app and create a soundtrack to go with it. 2 lessons</p>		
			<p>I can edit my stop motion video</p>	<p>Use session to finish and edit movies</p>		

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Year 5				
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<p>Y5 Aut  Digital Literacy</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</li> </ul>	<ul style="list-style-type: none"> <li>• Pupils learn to create secure passwords for their accounts, learn about spam and how to deal with it, and decode website privacy policies, understanding the implications for the info that they share online</li> <li>• Pupils explore their roles as digital citizens in an online community, where they</li> </ul>				<ul style="list-style-type: none"> <li>• Create at least 2 digital piece of written work ( look at PowerPoint for a project) using links to document areas and websites</li> <li>• Children to to save and reopen</li> <li>• Create a graph and table to display information and add to presentation or written doc</li> <li>• Research and safe keywording for topic research</li> <li>• create algorithms for a science or topic based resources (flashing lights in DT/science)</li> </ul>
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		<p>reflect on their responsibilities and learn that good digital citizens are responsible and respectful in the digital world</p> <ul style="list-style-type: none"><li>• Pupils begin to explore the nature of online audiences and permanency of information online. They begin to understand the significance of published</li></ul>				
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		<p>information and personal information</p> <ul style="list-style-type: none"><li>• Pupils understand what it means to be a good digital citizen as they interact with others online by understanding how to prevent and respond to cyberbullying. They also learn how to communicate effectively to prevent miscommunication in order to</li></ul>				
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		<p>be a responsible member of a connected culture</p> <ul style="list-style-type: none"><li>• Pupils learn the 'do's and don'ts' of copying and pasting information to avoid plagiarism. They learn how to avoid plagiarism by putting information in their own words, putting excerpted information into quotes, and providing citations.</li></ul>				
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		<p>They learn to show respect for other people's creations by giving them credit</p> <ul style="list-style-type: none"><li>• Pupils explore issues relating to online searching, including how to use effective keywords, using directories and subject categories, and how to analyse the usefulness and relevancy of the results.</li></ul>				
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		They learn to conduct searches that provide them with the most helpful and relevant information				
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Y5 Spring Computer science	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals; including controlling or simulating physical systems and solving problems by decomposing them into</li> </ul>	<ul style="list-style-type: none"> <li>Pupils create a computer game, using a graphical language such as Scratch or Kodu</li> <li>Pupils learn to use and program a 'crumble robot' to complete a basic task and implement these skills into a larger STEM project</li> </ul>	<p>I can create sprites using bitmap and vector art</p>	<p>Using scratch on the iPads work your way through the video lessons wither let the videos do the teaching or watch and model yourselves if you want to link it more to topic.</p> <p><a href="https://www.youtube.com/watch?v=Y4Wr82P5bdc&amp;list=PL3kA-gpaSB2aUBn0AO5m-WvQodWlbdPko&amp;index=9">https://www.youtube.com/watch?v=Y4Wr82P5bdc&amp;list=PL3kA-gpaSB2aUBn0AO5m-WvQodWlbdPko&amp;index=9</a></p> <p>Lesson 1 parts 1-4 Lesson 2 parts 5-6 Lesson 3 parts 7-8 Lesson 4 parts 9-12 Lesson 5 parts 13-17 Lesson 6 parts 18-19</p>		<ul style="list-style-type: none"> <li>Create at least 2 digital piece of written work ( look at PowerPoint for a project) using links to document areas and websites</li> <li>Children to to save and reopen</li> <li>Create a graph and table to display information and add to presentation or written doc</li> <li>Research and safe keywording for topic research</li> </ul> <p>create algortihms for a science or topic based resources (flashing lights in DT/science)</p>
			<p>I can design a maze game with keyboard input control</p>			

	<p>smaller parts</p> <ul style="list-style-type: none"> <li>• use sequence, selection and repetition in programs; work with variables and various forms of input and output</li> </ul>		<p>I can explain and use selection and variables</p>			
			<p>I can create interactive obstacles using sequence and repetition</p>			
			<p>I can use variables to trigger events</p>			
			<p>I can debug and evaluate my game</p>			

Y5Summer ICT	Pupils should be taught to:	<ul style="list-style-type: none"> <li>• Presentations: Pupils learn to write and deliver a presentation, incorporating a range of media</li> <li>• Graphics: Pupils learn how to take, adapt or create images to enhance or further develop their work and incorporate it in a wider project</li> </ul>	I can devise a script and type it up for a group	Link to topic (NF or F)		<ul style="list-style-type: none"> <li>• Create at least 2 digital piece of written work ( look at PowerPoint for a project) using links to document areas and websites</li> <li>• Children to save and reopen</li> <li>• Create a graph and table to display information and add to presentation or written doc</li> <li>• Research and safe keywording for topic research</li> </ul> <p>create algorithms for a science or topic based resources (flashing lights in DT/science)</p>
			I can record footage on greenscreen app	Ensure children are aware of the pitfalls of greenscreen; children to explore and research how to dress and resource a successful green screen presentation		
			I can develop graphics to form information backdrops	Choosing a topic related broadcast/story children are to create digital backdrops using photographs or digital paintings.		
			I can record a green screen presentation	Children to use green screen, prepped resources and clothing and record their presentation		

	<p>systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>		<p>I can apply an image to a green screen presentation</p>	<p>Children to finish editing and creating their green screen presentation within the app</p>		
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Year 6				
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<p>Y6 Aut  Digital Literacy</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content</li> </ul>	<ul style="list-style-type: none"> <li>• Pupils learn that the internet is a great place where online relationships can be developed . They compare and contrast online friends and real life, face to face friends and learn how to respond if an online friend asks them a personal question</li> <li>• Pupils begin to consider the impact</li> </ul>				<ul style="list-style-type: none"> <li>• Create at least 2 digital piece of written work sway or other visited presentation format) using links to document areas and websites</li> <li>• Children to to save and reopen</li> <li>• Create a graph and table to display information and add to presentation or written doc</li> <li>• Research and safe keywording for topic research</li> </ul> <p>create algortihms for a science or topic based resources (flashing lights in DT/science)</p>
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		<p>of their online presence on their own self-image and the way others see them and explore how to construct a positive online profile</p> <ul style="list-style-type: none"><li>• Pupils develop skills for evaluating websites, online information and advertising by rating the trustworthiness and usefulness of websites, and learning to</li></ul>				
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		identify the different types of online advertising				
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<p>Y6 Spring Computer science</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>understand and computer networks including the internet; how they can provide multiple services, such as the world wide web, and the opportunities they offer for</li> </ul>	<ul style="list-style-type: none"> <li>Pupils learn to collaborate electronically by blogging - mailing, and working on shared documents using the pupil sites of Teams. This can be extended to working with other schools Pupils learn that connected devices exchange packets of data and this can convey a</li> </ul>	<p>I can explain how data packets and information is shared online</p>	<p>Play non digital game then children can create a flow chart or other graphic to illustrate</p>	<p><b>Don't</b> introduce the concept: I think this activity is more memorable when you explain the learning objective at the end by asking the children what they think is going on after they've completed it. Explain that tables need to cut their sheets into squares. Assume 5 tables, each with 6 children. Three of the group cut the sheets and send the pieces down the tube to the next table. The other three children receive pieces from another table and reassemble the sheet. This is repeated across all five tables - have extra sheets of different file types ready for those tables who finish quickly. Stick the timer on - apart from focussing minds on the task, it'll accentuate how fast the internet works when you explain it later. Explain the concept/LO: Explain the squares are packets of data. This is how data travels around the internet</p>	<ul style="list-style-type: none"> <li>Create at least 2 digital piece of written work (sway or other visited presentation format) using links to document areas and websites</li> <li>Children to save and reopen</li> <li>Create a graph and table to display information and add to presentation or written doc</li> <li>Research and safe keywording for topic research</li> </ul> <p>create algorithms for a science or topic based resources (flashing lights in DT/science)</p>
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	<p>communication and collaboration</p>	<p>range of information from a text to a video call</p>	<p>I can explain how emails work</p>	<p>What are emails? Ask children to create a mind map illustrating what we know about emails. Is email data different to picture of video data? Children to create a poster/leaflet/1 page explanation to show people how emails work. Explain that data always looks the same and so therefore their prior learning should be able to inform them.</p>	<p>What are emails? Ask children to create a mind map illustrating what we know about emails. Is email data different to picture of video data? Children to create a poster/leaflet/1 page explanation to show people how emails work. Explain that data always looks the same and so therefore their prior learning should be able to inform them</p>	
			<p>I can send and respond to emails</p>	<p>potential to link with another school in Cornwall or another school in the country/topic country linked school or just topic company/person Teacher may need to simulate an email for more immediate responses or this lesson will need to be played out over a series of weeks where a volley of messages can be created</p>		

			<p>I can explore blogging and research what blogging and vlogging sites are successful and why</p>	<p>Ask children to define the terms Blog and Vlog. What are they used for? Do any of the children follow any blogs/vlogs? What makes them interesting. Look at some examples: <a href="http://childtasticbooks.wordpress.com/">http://childtasticbooks.wordpress.com/</a> <a href="https://alexknowitall7.wordpress.com/">https://alexknowitall7.wordpress.com/</a> <a href="https://marabird.wordpress.com/">https://marabird.wordpress.com/</a> <a href="https://youngfermanaghnaturalist.com/">https://youngfermanaghnaturalist.com/</a> <a href="https://www.sikids.com/">https://www.sikids.com/</a> These are all blogs by children and can be used to research what makes them likeable, useable etc</p>	
			<p>I can plan and design a blog/vlog</p>	<p>Using edublog( We have a school login I used for Blogging Club which can easily just be added to) /Teams Children to plan and make the sections for their blogs/vlogs. Checking for photos/images/videos and text.</p>	
			<p>I can create a blog/vlog</p>	<p>Using edublog( We have a school login I used for Blogging Club which can easily just be added to) /Teams children to use all their collated information and sections and put together ready to publish</p>	

Y6 Summer ICT	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of</li> </ul>	<ul style="list-style-type: none"> <li>Working with data: Pupils learn to search, sort and graph information</li> <li>Modelling: Pupils learn how to use a spreadsheet to model data</li> </ul>	<p>I understand what a spreadsheet is and how to manipulate it</p>	<p>Explore a blank sheet – discuss cells (and their names), columns, rows and show how we can select, change sizes and add information to them. Give children Spreadsheets doc to work out and see if they can un-muddle the columns and rows.</p>	<ul style="list-style-type: none"> <li>Create at least 2 digital pieces of written work (or other visited presentation format) using links to document areas and websites</li> <li>Children to save and reopen</li> <li>Create a graph and table to display information and add to presentation or written doc</li> <li>Research and safe keywording for topic research</li> </ul> <p>create algorithms for a science or topic based resources (flashing lights in DT/science)</p>
			<p>I can read and adapt previously created graphs</p>	<p>Open a pre-prepared sheet and show the children how we can add graphs created from data we have inputted previously. Have data collected from Science or topic ready in a table and model how we create the graphs. Give the children the unfinished graph sheet and ask them to add the missing elements from each graph</p>	



	<p>programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>		<p>I can create and format a graph</p>	<p>Children can use the graph resource (LA or slower pc users) or start from scratch with their pre-collected data in order to build their own graphs.</p>		
			<p>I understand the relationship between cell data and points on the graph</p>	<p>Open lesson with cell data and points sheet. Get children to create the requested shape by changing the data in the table. Now model creating a line graph with topic related data. Children to create one on their own.</p>		

			<p>I can work with basic addition formulas</p>	<p>Bring children back to the lesson 1 doc they saved What do they think the yellow cells are for? Model using the first sheet and allow children to complete their own. Ask them to open a new sheet. Model how to get the spread sheet to extend a pattern of numbers by starting the series 1,2,3 or 2,4,6 etc. Highlight the series then release the left mouse button. Move the cursor over the bottom right hand corner of the bottom highlighted cell (arrow). This will change from a white cross to a black cross, when it does left click and drag it down. The series will be continued. Explain that we can create any series of numbers by doing this.</p>		
			<p>I can work with other calculation formulas</p>	<p>Ask children to refer back to last weeks sheet – can we work out how to complete the other 3 calculations. Allow children to problem solve and then ask for demonstraotrs.</p>		