















Backworth Park Primary School Long Term Plan Computing

	Term 1	Term 2	Term 3
EFACW - EYFS	<ol style="list-style-type: none"> 1. Recognising how we are the same and different online. 2. Understanding kind and unkind online behaviour. 	<ol style="list-style-type: none"> 1. What to do if someone is unkind online. 2. Recognising if something online makes you feel confused. 	<ol style="list-style-type: none"> 1. How screen time affects feelings. 2. Keeping personal information private.
EYFS	<p>Online safety </p> <p>Can I find information online?</p> <ul style="list-style-type: none"> • Understand the importance of not sharing personal information. • Start to identify when I feel unsafe online • Learn that I should tell an adult if I feel unsafe online <p>Digital literacy </p> <ul style="list-style-type: none"> • With support, begin to understand the basics of what the internet is and how to access information or websites safely. • With support, begin to use different types of software or apps to begin to build skills in using technology for various tasks. <p>With support, learn how to search for and gather information using technology.</p>	<p>Computer science </p> <p>Can I move an object on a screen?</p> <ul style="list-style-type: none"> • Explore and play with computer games. • Start to use and name different parts of technology (like buttons, screens, or keyboards). • Begin to plan and try out simple instructions (such as moving a character or object in a game). • Move objects or characters on the screen using technology. • Use simple programs or apps with help to play or create things. 	<p>Information Technology </p> <p>What technology do we use at home and at school?</p> <ul style="list-style-type: none"> • Begin to recognise letters on a keyboard. • Start to type their own name using a keyboard. • Learn simple keyboard commands (e.g., pressing enter or space bar). • Identify and talk about different types of technology they see in everyday life (such as computers, phones, or tablets).
EFACW - Year 1	<ol style="list-style-type: none"> 1. Understanding that online identities may not always match real life. 2. Knowing who to talk to if something online upsets you. 	<ol style="list-style-type: none"> 1. Understanding that words online can hurt others. 2. Knowing that not everything online is true. 	<ol style="list-style-type: none"> 1. Understanding when to take a break from screens. 2. Understanding why we don't share passwords.




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<p>Year 1</p>	<p>Online safety </p> <p><u>Keeping safe online</u></p> <ul style="list-style-type: none"> • Know when and why to take breaks from device time. • Discover that the internet can be used to visit faraway places and learn new things. • To recognise common uses of technology in the home • To understand how shops might use technology • To explore control technology devices • To explain how a control device works <p>Digital literacy </p> <p><u>Explore digital sound</u></p> <ul style="list-style-type: none"> • Explore making simple sounds • To combine layers of sound to compose a simple tune with a beat • Explore a range of electronic music and sound devices and software. • Explore a range of electronic music and sound devices and software • Create images to accompany a soundtrack • To create a soundtrack that matches the mood of an image 	<p>Digital literacy </p> <p><u>Making multimedia stories</u></p> <ul style="list-style-type: none"> • Begin to use two hands for typing, Name parts of a computer, Add text to a text box • Make simple changes to selected text, e.g. colour, style and size. • Use drawing tools effectively (e.g. make use of tools such as fill or shape tools). • Be able to select and listen to a sound from a bank of pre-recorded sounds. • Use drawing tools effectively (e.g. make use of tools such as fill or shape tools). <p>Digital Literacy </p> <p><u>Digital art</u></p> <ul style="list-style-type: none"> • Look at the differences between a computer art and paper-based art • Understand there are a variety of tools in a paint package, each for a different purpose. • Use shape, line and colour to create a artistic style called Impressionism. • Use shape, line and colour to create a artistic style called Pointillism. • Use shape, line and colour to create a artistic style called modern art. • Use shape, line and colour to create a artistic style called street art. 	<p>Computer science </p> <p><u>Action algorithms</u></p> <ul style="list-style-type: none"> • To know what an algorithm is • To write an algorithm for a recipe • To write an algorithm for sharing • To improve an algorithm • To understand that computers follow programming languages or 'code' • To give clear, unambiguous instructions <p><u>Programming direction</u></p> <ul style="list-style-type: none"> • Give clear unambiguous instructions • Make predictions when giving instructions • Create algorithms for directions • Create algorithms for directions including turning • Begin to create algorithms with a written programming language
<p>EFACW – Year 2</p>	<ol style="list-style-type: none"> 1. How online actions impact feelings and self-esteem. 2. Recognising when someone is being unkind online. 	<ol style="list-style-type: none"> 1. Recognising online bullying and how to get help. 2. Understanding how websites are designed to grab attention. 	<ol style="list-style-type: none"> 1. How too much screen time can affect health. 2. Knowing when and why to ask for adult help online.
<p>Year 2</p>	<p>Online safety </p> <p><u>Keep safe and create</u></p>	<p>Computer science </p> <p><u>Program with Scratch jr</u></p> <ul style="list-style-type: none"> • Create and debug simple programs 	<p>Information Technology </p> <p><u>Find and present information</u></p>







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	<ul style="list-style-type: none"> • Understand the importance of being safe, responsible and respectful online. • Import images into multimedia resources to share ideas to engage others. • Know what to do when they don't have a good feeling when using technology. • Create an interactive survey to gather other people's opinions. • Learn to identify websites and apps that are "just right" and "not right" for them. • Know how to get help from an adult if they are unsure about a website <p>Digital literacy </p> <p><u>Write in different styles</u></p> <ul style="list-style-type: none"> • Begin to use two hands for typing • To apply simple formatting to text • Use speech bubbles, thought bubbles and text boxes • To design your own layout for a document • To import images into a document • To use a spell checker 	<ul style="list-style-type: none"> • Program the movement and appearance of an on-screen sprite • Program sprites to create a short animation • Investigate different ways of triggering movement with code • Program scene changes in an animation • Design and program a simple game with multiple sprites • Use messaging to control sprites in a game <p><u>Program with Logo</u></p> <ul style="list-style-type: none"> • To understand that Logo is a programming language • To give simple commands using Logo • To decompose a bigger problem into smaller parts • To use repeat commands in Logo to draw regular shapes • Use logical reasoning to predict what a simple program will do • To use repeat commands in Logo to draw regular shapes • To look for similarities and differences between two programming languages 	<ul style="list-style-type: none"> • Use and explore appropriate buttons, arrows, menus and hyperlinks to navigate teacher selected web sites. • Use and explore buttons, arrows, menus and hyperlinks to navigate a website. • Use simple graphing software to produce pictograms and other basic tables or graphs. • Sort and classify a group of items by asking simple yes / no questions. This may take place away from the computer, e.g. a 'Guess Who' game. • Use a database program, where appropriate, to sort and identify items. <p><u>Introduction to animation</u></p> <ul style="list-style-type: none"> • To understand that animation is a collection of still images to make moving images. • Improve the quality of animations with onion skinning and the select tool • To successfully use the 'Inbetweening' tool to create a simple animation. • To compare 2D and stop motion animation. • To create a smooth stop motion animation by moving objects in small steps • To plan and tell a simple story with stop motion animation.
<p>EFACW – Year 3</p>	<ol style="list-style-type: none"> 1. Exploring how people present themselves online 2. Learning about safe ways to communicate online 	<ol style="list-style-type: none"> 1. Exploring how to respond to and report cyberbullying 2. Learning to check if online information is reliable. 	<ol style="list-style-type: none"> 1. Learning about balanced screen use 2. Learning about secure passwords and data protection.






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<p>Year 3</p>	<p>Digital literacy/online safety </p> <p><u>Unit resources</u></p> <ul style="list-style-type: none"> Recognise the ways in which digital devices can be distracting. Understand that they should never give out private information online. Learn that the information they share online leaves a digital footprint or "trail" Compare and contrast how they are connected to different people and places, in person and on the internet Understand what online meanness can look like and how it can make people feel Explain how giving credit is a sign of respect for people's work <p>Computer science </p> <p><u>Patterns in nature</u></p> <ul style="list-style-type: none"> Acquire, store and retrieve images from cameras, scanners or the Internet for a purpose. Understand the need for caution when using the Internet to search for images and what to do if they find unsuitable images (See school's Acceptable Use Policy/AUP) Use a lasso tool to select specific areas of an image. Use a lasso tool to select specific areas of an image. Be able to resize various elements in a graphics or paint package. Import music, stills or video into video editing software for a specific project. 	<p>Information technology </p> <p><u>Communication and collaboration</u></p> <ul style="list-style-type: none"> Log on to an email account, open emails, create and send appropriate replies. Know and apply the school's rules for keeping safe online and be able to apply these beyond school. Attach different files to emails, e.g. text document, sound file or image. To understand, use and explain cloud storage To log into, create and share a collaborative document or application Understand the need for certain rules of conduct, particularly when using live forums of communication, e.g. chats, forums, live docs <p><u>Databases</u></p> <ul style="list-style-type: none"> To understand and explain what a database is To select appropriate data to add to a database To insert records into a database To make a chart from information in a database To compare different methods of collecting data To accurately analyse and interpret database information . 	<p>Computer science </p> <p><u>Starting from Scratch</u></p> <ul style="list-style-type: none"> To understand and explain key vocabulary linked to programming. To become familiar with the Scratch programming environment (blocks, sprites, stage, canvas, controls). Use logic to debug existing code and explain your changes. To sequence a series of commands accurately and in the most efficient way. To plan and create an animation using code. To create an animation using code. To critically evaluate the work of a classmate and offer constructive feedback. <p><u>Getting started with Kodu</u></p> <ul style="list-style-type: none"> Create and refine sequences of commands to make a character move Use logical reasoning to debug algorithm Plan and design a 3D game environment Create and refine sequences of commands to make a character move Use logical reasoning to debug algorithms Design programs with sequence and selection that accomplish specific goals Use logical reasoning to debug algorithms Evaluate a program that they have created and say what they liked and what could be done to improve it Plan and design a 3D game environment Create and refine sequences of commands to make a character move Evaluate a program that they have created and say what they liked and what could be done to improve it Make improvements to a game based on feedback
<p>EFACW – Year 4</p>	<p>1. Understanding how online identity can be manipulated.</p>	<p>1. Strategies for supporting victims of online bullying.</p>	<p>1. Exploring digital wellbeing and mental health.</p>









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	<p>2. Recognising dangers of online friendships and strangers.</p>	<p>2. Recognising fake news and misleading content.</p>	<p>2. Knowing when and why to ask for adult help online.</p>
<p>Year 4</p>	<p>Online safety </p> <p><u>Digital Literacy and Online Safety</u></p> <ul style="list-style-type: none"> Examine both in-person and online responsibilities. Describe the Rings of Responsibility as a way to think about how our behaviour affects ourselves and others. Define the term "password" and describe a password's purpose. Understand why a strong password is important. Consider how posting selfies or other images will lead others to make assumptions about them. Define what a community is, both in person and online. Understand that it's important to think about the words we use, because everyone interprets things differently. Identify ways to respond to mean words online, using S-T-O-P. Recognise that photos and videos can be altered digitally. <p><u>3D Design</u></p> <ul style="list-style-type: none"> Navigate a 3D environment successfully Create simple 3D models Use the referencing tools in Sketchup to help keep elements in proportion Use a range of simple drawing tools in Sketchup Apply colour and materials to a 3D model Create a detailed 3D building model Create and use components in a Sketchup model Design buildings that fit a particular architectural theme or period in history 	<p>Information technology </p> <p><u>Search the web</u></p> <ul style="list-style-type: none"> To explain in simple terms what a search engine is To understand how search results are selected and ranked, including that search engines use 'web crawler programs'. To stay safe when going online and to know what to do if they have a problem To stay safe when going online and to know what to do if they have a problem To research and validate information on websites Make and explain judgements about the design of digital content To compare and contrast different types of maps To use a variety of tools in digital maps to find and explore places To understand and explain artificial intelligence (AI) in simple terms To create clear and precise prompts for a generative AI chatbot To understand possible negative uses of generative AI <p><u>Computational Thinking</u></p> <ul style="list-style-type: none"> To understand what computational thinking is To understand that binary code can represent many things To use logic and reasoning to evaluate digital content. To recognise and apply computational thinking concepts and approaches to solve problems. To understand that encryption is a way to keep data private. 	<p>Computer science </p> <p><u>Program Scratch</u></p> <ul style="list-style-type: none"> To design an appropriate setting for a video game To program the movement of a sprite To understand and apply the use of coordinates when coding character movement To understand and use conditions in programming To debug a program, explaining errors you find and how to fix them To understand and use variables Understand and use broadcasts as event triggers Talk about how they made their program and justify the choice they made for both function and design. Critically evaluate programs and say what they liked and what could be done to improve it. <p><u>Program Kodu</u></p> <ul style="list-style-type: none"> Identify different gaming genres. Understand and explain how to stay safe when gaming. Create a detailed plan for a video game Clearly explain the key features of a video game plan To independently create a 3D environment appropriate for a specific video game genre To design, write and debug programs that accomplish specific goals. To make judgements about digital content when evaluating it. To use evaluation criteria to identify and suggest improvements.






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		<ul style="list-style-type: none"> To give precise, unambiguous instructions in an algorithm 	
EFACW – Year 5	<ol style="list-style-type: none"> Examining the effects of online personas on self-worth. Understanding pressure and manipulation in online relationships. 	<ol style="list-style-type: none"> The role of bystanders and online peer pressure. Understanding search engines, algorithms, and bias. 	<ol style="list-style-type: none"> The effects of gaming addiction and social media pressure. Understanding copyright, plagiarism, and intellectual property.
Year 5	<p>Online safety </p> <p><u>Unit resources</u></p> <ul style="list-style-type: none"> Learn the "What? When? How Much?" framework for describing their media choices. Use this framework and their emotional responses to evaluate how healthy different types of media choices are. Identify the reasons why people share information about themselves online. Explain the difference between private and personal information. Define the term "digital footprint" and identify the online activities that contribute to it. Define "social interaction" and give an example. Describe the positives and negatives of social interaction in online games. Reflect on the characteristics that make someone an upstanding digital citizen. Define "copyright" and explain how it applies to creative work. <p>Digital literacy </p> <p><u>Build collaborative websites</u></p> <ul style="list-style-type: none"> Log-in and manage an online account and password safely To work effectively with others on a collaborative document or application 	<p>Computer science </p> <p><u>Build retro games</u></p> <ul style="list-style-type: none"> Analyse an existing video game and explain how it works Understand and use sequence, selection, and repetition in programs Use X and Y coordinates effectively to control a sprite's movement Understand and use variables to control functions in a game Plan ways to add to and improve a program Use sequence, selection, and repetition in programs Use logical reasoning to debug programs Plan ways to add to and improve a program Analyse an existing video game and explain how it works Understand and use variables to control functions in a game <p>Computer science </p> <p><u>Lego robotics</u></p> <p>Understand and use variables to control functions in a game</p> <p>Plan ways to add to and improve a program</p> <p>Use sequence, selection, and repetition in programs</p> <p>Use X and Y coordinates effectively to control a sprite's movement</p> <p>Use logical reasoning to debug programs</p>	<p>Information technology </p> <p><u>What is a computer</u></p> <ul style="list-style-type: none"> To recognise computers in machines around us To understand and explain input and output devices for computers To recognise that a range of digital devices can be considered a computer. To explain the differences between types of common computers. To understand the difference between hardware and software. To understand and use the binary number system. To convert decimal numbers to binary and vice versa. To know that computers transfer data in binary. To understand how bit patterns represent numbers and images. To understand the relationship between colours in an image and data. To compare and contrast different types of computer data storage. To understand how computers store and process data. <p>Digital literacy </p> <p><u>Manipulate sound</u></p> <ul style="list-style-type: none"> Use a variety of music software to experiment with capturing, repeating and sequencing sound patterns. Understand the difference between digital and analogue sound



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	<ul style="list-style-type: none"> Recognise the features of good design in electronic media To work effectively with others on a collaborative document or application Understand that images, sounds and text can be subject to copyright and abide by copyright rules. Through peer and self-assessment, evaluate work and make improvements. Develop and use criteria to evaluate design and layout of a website. 	<p>Analyse an existing video game and explain how it works</p> <p>Understand and use variables to control functions in a game</p>	<ul style="list-style-type: none"> Use music software to experiment with capturing, repeating and sequencing sound patterns. Talk about software which allows the creation and manipulation of sound and music. Locate and use sound files from online sources. Select, import and edit existing sound files in sound editing software. Use editing tools to alter recorded sounds for a specific purpose e.g to alter the mood or atmosphere. Understand issues relating to copyright when choosing music samples and files and apply to their work. Select, edit, manipulate and combine sound files from a range of sources to create a composition which could be broadcast for a specific purpose and audience Upload and download projects to other devices and online space, collaborating and communicating with audiences in locations beyond school.
<p>EFACW – Year 6</p>	<ol style="list-style-type: none"> The impact of social media on self-image and reality. Exploring issues like catfishing and online grooming. 	<ol style="list-style-type: none"> Understanding trolling, hate speech, and digital resilience. Evaluating the reliability of sources and spotting misinformation. 	<ol style="list-style-type: none"> The impact of online behaviour on sleep, health, and relationships. The legal and ethical issues around digital content creation including using AI.
<p>Year 6</p>	<p>Online safety </p> <p><u>Online Safety (Year 6)</u></p> <ul style="list-style-type: none"> Reflect on how balanced they are in their daily lives. Define "the curiosity gap." Define "gender stereotype" and describe how they can be present online. Compare and contrast different kinds of online-only friendships. Recognise similarities and differences between in-person bullying, cyberbullying, and being mean. Understand the purposes of different parts of an online news page. 	<p>Information technology </p> <p><u>Spreadsheet masters</u></p> <ul style="list-style-type: none"> Explain what a spreadsheet is; Describe how a spreadsheet could be used by someone at work; Label the different areas of a spreadsheet using the correct vocabulary; Create simple formulae in a spreadsheet. Use cell references to complete formulae Use a set of data in a spreadsheet to create an appropriate chart Use tools in a spreadsheet to help someone understand the information more quickly Create a spreadsheet to test maths facts Use Conditional formatting to mark the questions 	<p>Computer science </p> <p><u>Starting out with micro:bit</u></p> <ul style="list-style-type: none"> To create simple programs to control the LED matrix on the micro:bit To edit and adapt simple programs on the micro:bit To download, load and test the .hex file on the micro:bit. To create simple programs to control the LED matrix on the micro:bit To understand inputs and outputs on a computer Designs algorithms that use variables, and selection and arithmetic operators Use logical reasoning to predict the behaviour of programs



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Digital literacy

Manipulate images

- To use a range of photo editing tools and techniques to create a pop art style image inspired by Andy Warhol's work
- To effectively work with multiple layers in an image
- To use a range of photo editing tools and techniques to create a pop art style image inspired by Andy Warhol's work
- To effectively work with multiple layers in an image
- To successfully use the lasso, marquee and eraser tools to successfully combine a number of separate images into one.
- To develop familiarity with 3D modelling tools and techniques
- To work independently with a range of 3D modelling tools and techniques
- To create a 3D digital sculpture for a specific real-life location
- To work independently with a range of 3D modelling tools and techniques
- To create a 3D digital sculpture for a specific real-life location

Information technology

Inside the internet

- To know and explain the purpose of key components in a typical school network
- To draw, label and explain a typical school network
- To know and explain the services offered by a typical school network
- To understand how data travels around the Internet
- To understand that web pages are written in HTML
- To recognise simple HTML formatting language
- To view the HTML page in a browser
- To understand that web pages are written in HTML
- To recognise simple HTML formatting language
- To edit CSS code to change the style of a web page
- To independently edit HTML code and remix a web page
- To independently edit CSS code to change the style of a web page

- Build and program a physical game that utilises inputs and outputs.
- Understand what conditional statements are
- Understand what conditional statements (selection) are, and why and when to use them in a program
- Understand what variables are and why and when to use them in a program.
- Learn how to create, set and change a variable value within a micro:bit program.

Digital literacy

Creating Instructional Videos

- To understand and explain the features of an instructional video.
- To use Keynote to create a script.
- To create an instructional video. (3 lessons)
- To evaluate your own and others' instructional videos.

Key:



Digital Literacy



Online Safety



Computer Science



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Information Technology

Education For a Connected World

Each half-term you have an additional online safety lesson based on the Education for a Connected World (EFACW) document. [Project Evolve](#) has been created specifically to support the teaching of EFACW. The resources are used to deliver the content of these objectives.

Evidence to be recorded on Seesaw.

Why are these objectives included?

Online safety needs constant revisiting; covering these objectives provides the pupils with regular recapping, securing and developing of online safety each half-term. Each aspect of the computing curriculum is focused on different aspect of the pupils development as digital citizens.

- Education for a Connected World = *Attitudes, understanding, ethical reasoning.*
- Computing = *Skills, knowledge and application.*

Each half-term focuses on one of the 6 strands covered by EFACW:

- Self-Image and Identity
- Online Relationships
- Online Bullying
- Managing Online Information
- Health, Wellbeing, and Lifestyle
- Privacy and Security / Copyright and Ownership



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