



Computing

Computer Science, Information Technology and Digital Literacy

Online Safety- taught every half term



EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1						
<p>Technology in the Early Years:</p> <p>taking a photograph with a camera or tablet</p> <p>searching for information on the internet</p> <p>playing games on the interactive whiteboard</p> <p>using an ipad – playing games, drawing pictures</p> <p>exploring an old typewriter or other mechanical toys</p> <p>using a Beebot watching a video clip</p> <p>listening to music</p>	<p>Computer systems Technology Around Us</p> <p>Week 1 To identify technology.</p> <p>Week 2 To identify a computer and its main parts.</p> <p>Week 3 To use a mouse in different ways.</p> <p>Week 4 To use a keyboard to type on a computer.</p> <p>Week 5 To use the keyboard to edit text.</p> <p>Week 6 To create rules for using technology responsibly.</p> <p>Online Safety Self Image and Identity</p> <p>I can recognise that there may be people online who could make someone feel sad, embarrassed or upset.</p>	<p>Computer systems IT Around Us</p> <p>Week 1 To recognise the uses and features of information technology.</p> <p>Week 2 To identify the uses of information technology in the school.</p> <p>Week 3 To identify information technology beyond school.</p> <p>Week 4 To explain how information technology helps us.</p> <p>Week 5 To explain how to use information technology safely.</p> <p>Week 6 To recognise that choices are made when using information technology.</p> <p>Online Safety Self Image and Identity</p> <p>I can explain how other people may look and act</p>	<p>Computer systems Connecting Computers</p> <p>Week 1 To explain how digital devices function.</p> <p>Week 2 To identify input and output devices.</p> <p>Week 3 To recognise how digital devices can change the way that we work.</p> <p>Week 4 To explain how a computer network can be used to share information.</p> <p>Week 5 To explore how digital devices can be connected.</p> <p>Week 5 To recognise the physical components of a network.</p> <p>Online Safety Self Image and Identity</p>	<p>Computer systems The Internet</p> <p>Week 1 To describe how networks physically connect to other networks.</p> <p>Week 2 To recognise how networked devices make up the internet.</p> <p>Week 3 To outline how websites can be shared via the World Wide Web (www).</p> <p>Week 4 To describe how content can be added and accessed on the World Wide Web (www).</p> <p>Week 5 To recognise how the content of the World Wide Web is created by people.</p> <p>Week 6 To evaluate the consequences of unreliable content.</p>	<p>Computer systems Sharing Information</p> <p>Week 1 To explain that computers can be connected together to form systems.</p> <p>Week 2 To recognise the role of computer systems in our lives.</p> <p>Week 3 To identify how to use a search engine.</p> <p>Week 4 To describe how search engines select results.</p> <p>Week 5 To explain how search results are ranked.</p> <p>Week 6 To recognise why the order of results is important, and to whom.</p> <p>Online Safety Self Image and Identity</p>	<p>Computer systems Communication</p> <p>Week 1 To explain the importance of internet addresses.</p> <p>Week 2 To recognise how data is transferred across the internet.</p> <p>Week 3 To explain how sharing information online can help people to work together.</p> <p>Week 4 To evaluate different ways of working together online.</p> <p>Week 5 To recognise how we communicate using technology.</p> <p>Week 6 To evaluate different methods of online communication.</p> <p>Online Safety Self Image and Identity</p>

	If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.	differently online and offline.	I can explain what is meant by the term 'identity'. I can explain how people can represent themselves in different ways online.	Online Safety Self Image and Identity I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.	I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this.	I can identify and critically evaluate online content related to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Autumn2

Technology in the Early Years: taking a photograph with a camera or tablet searching for information on the internet playing games on the interactive whiteboard using an ipad – playing games, drawing pictures exploring an old typewriter or other mechanical toys using a Beebot watching a video clip listening to music	Creating media Digital painting Week 1 To describe what different freehand tools do. Week 2 To use the shape tool and the line tools. Week 3 To make careful choices when painting a digital picture. Week 4 To explain why I chose the tools I used. Week 5 To use a computer on my own to paint a picture. Week 6 To compare painting a picture on a computer and on paper.	Digital literacy Digital Photography Week 1 To describe what different freehand tools do. Week 2 To use the shape tool and the line tools. Week 3 To make careful choices when painting a digital picture. Week 4 To explain why I chose the tools I used. Week 5 To use a computer on my own to paint a picture. Week 6 To compare painting a picture on a computer and on paper.	Digital literacy Animation Week 1 To explain that animation is a sequence of drawings or photographs. Week 2 To relate animated movement with a sequence of images. Week 3 To plan an animation. Week 4 To identify the need to work consistently and carefully. Week 5 To review and improve an animation. Week 6 To evaluate the impact of adding other media to an animation.	Digital literacy Audio Editing Week 1 To identify that sound can be recorded. Week 2 To explain that audio recordings can be edited. Week 3 To recognise the different parts of creating a podcast project. Week 4 To apply audio editing skills independently. Week 5 To combine audio to enhance my podcast project. Week 6 To evaluate the effective use of audio.	Digital literacy Vector Drawing Week 1 To explain what makes a video effective. Week 2 To use a digital device to record video. Week 3 To capture video using a range of techniques. Week 4 To create a storyboard. Week 5 To identify that video can be improved through reshooting and editing. Week 6 To consider the impact of the choices made when making and sharing a video.	Digital literacy 3D Modelling Week 1 To recognise that you can work in three dimensions on a computer. Week 2 To identify that digital 3D objects can be modified. Week 3 To recognise that objects can be combined in a 3D model. Week 4 To create a 3D model for a given purpose. Week 5 To plan my own 3D model. Week 6 To create my own digital 3D model.	
		Online Safety Online Relationships	Online Safety Online Relationships		Online Safety	Online Safety Online Relationships	Online Safety Online Relationships

	I can give examples of when I should ask permission to do something online and explain why this is important.	I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky.	<p>Online Safety</p> <p>Online Relationships</p> <p>I can describe ways people who have similar likes and interests can get together online</p>	<p>Online Relationships</p> <p>I can describe strategies for safe and fun experiences in a range of online social environments.</p>	I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.	I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not.
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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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Spring						
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<p>Technology in the Early Years:</p> <p>taking a photograph with a camera or tablet</p> <p>searching for information on the internet</p> <p>playing games on the interactive whiteboard</p> <p>using an ipad – playing games, drawing pictures</p> <p>exploring an old typewriter or other mechanical toys</p> <p>using a Beebot</p>	<p>Programming Moving a Robot (BeeBots)</p> <p>Lesson 1 To explain what a given command will do.</p> <p>Lesson 2 To act out a given word.</p> <p>Lesson 3 To combine forwards and backwards commands to make a sequence.</p> <p>Lesson 4 To combine four direction commands to make sequences.</p> <p>Lesson 5 To plan a simple program.</p> <p>Lesson 6</p>	<p>Programming Robot Algorithms (BeeBots)</p> <p>Lesson 1 To describe a series of instructions as a sequence.</p> <p>Lesson 2 To explain what happens when we change the order of instructions.</p> <p>Lesson 3 To use logical reasoning to predict the outcome of a program.</p> <p>Lesson 4 To explain that programming projects can have code and artwork.</p> <p>Lesson 5 To design an algorithm.</p> <p>Lesson 6 To create a debug a program that I have written.</p>	<p>Programming Sequencing Sounds</p> <p>Lesson 1 To explore a new programming environment.</p> <p>Lesson 2 To identify that commands have an outcome.</p> <p>Lesson 3 To explain that a program has a start.</p> <p>Lesson 4 To recognise that a sequence of commands can have an order.</p> <p>Lesson 5 To change the appearance of my project.</p> <p>Lesson 6 To create a project from a task description.</p>	<p>Programming Repetition in Shapes (Turtle Playground)</p> <p>Lesson 1 To identify that accuracy in programming is important.</p> <p>Lesson 2 To create a program in a text-based language.</p> <p>Lesson 3 To explain what 'repeat' means.</p> <p>Lesson 4 To modify a count-controlled loop to produce a given outcome.</p> <p>Lesson 5 To decompose a task into small steps.</p> <p>Lesson 6 To create a program that uses count-controlled loops to produce a given outcome.</p>	<p>Programming Selection in Quizzes (Scratch)</p> <p>Lesson 1 To explain how selection is used in computer programs.</p> <p>Lesson 2 To relate that a conditional statement connects a condition to an outcome.</p> <p>Lesson 3 To explain how selection directs the flow of a program.</p> <p>Lesson 4 To design a program which uses selection.</p> <p>Lesson 5</p>	<p>Programming Variables in Games (Scratch)</p> <p>Lesson 1 To define a 'variable' as something that is changeable.</p> <p>Lesson 2 To explain why a variable is used in a program.</p> <p>Lesson 3 To choose how to improve a game by using variables.</p> <p>Lesson 4 To design a project that builds on a given example.</p> <p>Lesson 5 To use my design to create a project.</p> <p>Lesson 6 To evaluate my project.</p>
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<p>watching a video clip</p> <p>listening to music</p>	<p>To find more than one solution to a problem.</p> <p>Online Safety Online reputation</p> <p>I can recognise that information can stay online and could be copied.</p> <p>I can describe what information I should not put online without asking a trusted adult first.</p> <p>Online bullying</p> <p>I can describe how to behave online in ways that do not upset others and give an example.</p>	<p>Online Safety Online reputation</p> <p>I can explain how information put online about someone can last for a long time.</p> <p>I can describe how anyone's online information could be seen by others.</p> <p>Online bullying</p> <p>I can explain what bullying is, how people may bully others and how bullying can make someone feel.</p> <p>I can explain why anyone who experiences bullying is not to blame.</p>	<p>Online Safety Online Reputation</p> <p>I can give examples of what anyone may or may not be willing to share about themselves online.</p> <p>I can explain who someone can ask if they are unsure about putting something online.</p> <p>Online bullying</p> <p>I can describe appropriate ways to behave towards other people online and why this is important.</p> <p>I can give examples of how bullying behaviour could appear online and how someone can get support.</p>	<p>Online Safety Online Reputation</p> <p>I can describe how to find out information about others by searching online.</p> <p>Online bullying</p> <p>I can recognise when someone is upset, hurt or angry online.</p> <p>I can describe ways people can be bullied through a range of media.</p>	<p>To create a program which uses selection.</p> <p>Lesson 6 To evaluate my program.</p> <p>Online Safety Online Reputation</p> <p>I can explain ways that some of the information about anyone online could have been created, copied or shared by others.</p> <p>Online bullying</p> <p>I can explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them.</p>	<p>Online Safety Online Reputation</p> <p>I can explain ways in which anyone can develop a positive online reputation.</p> <p>Online bullying</p> <p>I can describe how to capture bullying content as evidence to share with others who can help me.</p> <p>I can explain how someone would report online bullying in different contexts.</p>
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Summer

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Technology in the Early Years:</p> <p>taking a photograph with a camera or tablet</p> <p>searching for information on the internet</p> <p>playing games on the interactive whiteboard</p>	<p>Digital literacy Digital Writing</p> <p>Lesson 1 To use a computer to write.</p> <p>Lesson 2 To add and remove text on a computer.</p> <p>Lesson 3 To identify that the look of text can be changed on a computer.</p> <p>Lesson 4</p>	<p>Digital literacy Pictograms</p> <p>Lesson 1 To recognise that we can count and compare objects using tally charts.</p> <p>Lesson 2 To recognise that objects can be represented as picture.</p> <p>Lesson 3 To create a pictogram.</p> <p>Lesson 4</p>	<p>Digital Literacy Branching Databases</p> <p>Lesson 1 To create questions with yes/no answers.</p> <p>Lesson 2 To identify the attributes needed to collect data about an object.</p> <p>Lesson 3 To create a branching database.</p> <p>Lesson 4</p>	<p>Digital Literacy Photo Editing</p> <p>Lesson 1 To explain that the composition of digital images can be changed.</p> <p>Lesson 2 To explain that colours can be changed in digital images.</p> <p>Lesson 3 To explain how cloning can be used in photo editing.</p> <p>Lesson 4</p>	<p>Digital Literacy Flat-File Databases</p> <p>Lesson 1 To use a form to record information.</p> <p>Lesson 2 To compare paper and computer-based databases.</p> <p>Lesson 3 To outline how you can answer questions by grouping and then sorting data.</p>	<p>Digital Literacy Spreadsheets</p> <p>Lesson 1 To create a data set in a spreadsheet.</p> <p>Lesson 2 To build a data set in a spreadsheet.</p> <p>Lesson 3 To explain that formulas can be used to produce calculated data.</p> <p>Lesson 4</p>

<p>using an ipad – playing games, drwing pictures</p> <p>exploring an old typewriter or other mechanical toys</p> <p>using a Beebot watching a video clip</p> <p>listening to music</p>	<p>To make careful choices when changing text.</p> <p>Lesson 5 To explain why I used the tools that I chose.</p> <p>Lesson 6 To compare typing on a computer to writing on paper.</p> <p>Online Safety Managing online information</p> <p>I can give simple examples of how to find information using digital technologies e.g. search engines, voice activated searching.</p> <p>Health, well-being and lifestyle</p> <p>I can explain rules to keep myself self when using technology both in and beyond the home.</p>	<p>To select objects by attribute and make comparisons.</p> <p>Lesson 5 To recognise that people can be described by attributes.</p> <p>Lesson 6 To explain that we can present information using a computer.</p> <p>Online Safety Privacy and Security</p> <p>I can explain how passwords can be used to protect information, accounts and devices.</p> <p>I can describe and explain some rules for keeping personal information private.</p> <p>Copyright and Ownership</p> <p>I can recognise that content on the internet may belong to other people.</p> <p>I can describe why other people’s work belongs to them.</p>	<p>To explain why it is helpful for a database to be well structured.</p> <p>Lesson 5 To plan the structure of a branching database.</p> <p>Lesson 6 To independently create an identification tool.</p> <p>Online Safety Managing online information</p> <p>I can demonstrate how to use key phrases in search engines to gather accurate information online.</p> <p>Health, well-being and lifestyle.</p> <p>I can explain why spending too much time using technology can sometimes have a negative impact on anyone.</p> <p>I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable.</p>	<p>To explain that images can be combined.</p> <p>Lesson 5 To combine images for a purpose.</p> <p>Lesson 6 To evaluate how changes can improve an image.</p> <p>Online Safety Managing online Information</p> <p>I can analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content.</p> <p>I can explain what is meant by fake news.</p> <p>Health, well-being and lifestyle.</p> <p>I can explain how using technology can be a distraction from other things, in both a positive and negative way.</p> <p>I can identify times or situations when someone may need to limt the amount of time they use technology.</p>	<p>Lesson 4 To explain that tools can be used to select specific data.</p> <p>Lesson 5 To explain that computer programs can be used to compare data visually.</p> <p>Lesson 6 To use a real-world database to answer questions.</p> <p>Online Safety Privacy and Security</p> <p>I can explain what a strong password is and demonstrate how to create one.</p> <p>I can explain how many free apps or services may read and share private information with others.</p> <p>Copyright and Ownership</p> <p>I can assess and justify when it is acceptable to use the work of others.</p> <p>I can give examples of content that is permitted to be reused and know how this content can be found online.</p>	<p>To apply formulas to data.</p> <p>Lesson 5 To create a spreadsheet to plan an event.</p> <p>Lesson 6 To choose suitable ways to present data.</p> <p>Online Safety Managing online information</p> <p>I can explain why information that is on a large number of sites may still be inaccurate or untrue.</p> <p>I can identify, flag and report inappropriate content.</p> <p>Health, well-being and lifestyle</p> <p>I can recognise and discuss the pressures that technology can place on someone and how/when they could mange this.</p> <p>I can asses and action different strategies to limit the impact of technology on health.</p>
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