

Computing 'Pillars' + additional 'e-safety' focus (KCSIE 2023)

Digital Literacy	Information Technology	Computer Science	E-Safety
Skills and knowledge required to be an effective, safe and discerning user of a range of computer systems: -using physical devices -knowledge of features	How computers are used in different sectors and creation of digital 'artefacts' such as spreadsheets, powerpoints, 3D models and videos.	Covers concepts such as data, system architecture, algorithms and programming (coding).	Linked to 'Digital Literacy'



**PLEASE REMEMBER TO START EVERY LESSON WITH AN E-SAFETY SALAMANDER QUESTION!**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
F*	<p><b>START WITH:</b> E Safety: I can tell an adult if I see something that worries me online.</p> <p><u>*EYFS – Objectives are discussion based, as most fall under 'Knowledge and understanding of the world'.</u></p>	<p><b>START WITH:</b> E Safety: I can ask an adult to be with me when I use the internet</p> <p><b>THEN:</b> I recognises that a range of technology is used in places such as homes and schools (ELG)</p>	<p><b>START WITH:</b> E Safety: I know I need to keep my personal information private.</p> <p><b>THEN:</b> I can select and use technology for particular purposes (ELG) I am familiar with the keyboard.</p>	<p><b>START WITH:</b> E Safety: I know how to stay safe when using a tablet.</p> <p><b>THEN:</b> I can select and use technology for particular purposes (ELG)</p>	<p><b>START WITH:</b> E Safety: I can use a safe part of the internet or app to play and learn.</p> <p><b>THEN:</b> I can use ICT hardware to interact with age-appropriate computer software</p>	<p><b>START WITH:</b> E Safety: I know I need to keep my personal information private.</p> <p><b>THEN:</b> I can complete a simple program on a computer.</p>
1	<p><b>START WITH:</b> E Safety: I know to tell an adult if I see something worrying online I can log in safely TASK: PM Unit 1.1 Online Safety</p> <p><b>THEN:</b> I can develop keyboard skills</p>	<p><b>START WITH:</b> E Safety: I always ask an adult before I go on the internet TASK: Refer to 'Byte'</p> <p><b>THEN:</b> Coding: Predict the behaviour of simple programs</p>	<p><b>START WITH:</b> E Safety: I can tell you what my personal information is. TASK: Refer to 'Byte'</p> <p><b>THEN:</b> Digital Literacy: I can use a program to create a simple document</p>	<p><b>START WITH:</b> E Safety: I say well done to my friends when I view their work. TASK: Refer to 'Byte'</p> <p><b>THEN:</b> Digital Literacy: I can use a program to create a simple document</p>	<p><b>START WITH:</b> E Safety: I know what these are: clipart, photograph, text, video, and sound. TASK: Refer to 'Byte'</p> <p><b>THEN:</b> TASK: PM Unit 1.6 Animated Story Books</p>	<p><b>START WITH:</b> E Safety: I know why it is important for trusted adults to know what I am doing online. TASK: Refer to 'Byte'</p> <p><b>THEN:</b> TASK: PM Unit 1.6 Animated Story Books</p>

	<p><b>Digital Literacy: I can recognise how I use technology in my home and at school</b>  <b>TASK: Refer to SONAR exemplar</b></p>	<p><b>Understand what algorithms are and how they are implemented on digital devices</b>  <b>TASK: Beebots using bluetooth</b></p>	<p><b>TASK: Topic book cover – search function (in PM), camera on laptop</b></p> <p>I understand what an alert is.  <b>TASK: Unit 1.2 Grouping &amp; Sorting - 2Quiz</b></p>	<p><b>TASK: clip art, click and drag, change font</b></p> <p>I understand that data can be represented in different ways.  <b>TASK: PM Unit 1.3 Pictograms – 2Count PM Unit 1.8 Spreadsheets – 2Calculate</b></p>	<p><b>Weeks – 5 Programs – 2Create A Story</b></p>	<p><b>Weeks – 5 Programs – 2Create A Story</b></p>
2	<p><b>START WITH:</b>  <b>E Safety: I understand what a digital footprint is.</b>  <b>TASK: Unit 2.2 Online Safety</b></p> <p><b>THEN:</b>  <b>Digital Literacy: I can find, open, edit and save files I am working on</b>  <b>TASK: PM Unit 2.6 Creating Pictures – 2PaintAPicture Unit 2.8 Presenting Ideas 4 Weeks Programs – Various</b></p>	<p><b>START WITH:</b>  <b>E Safety: I know I need to keep my personal information private.</b>  <b>TASK: Refer to SONAR exemplar</b></p> <p><b>THEN:</b>  <b>Information Technology: I can recognise how others use technology outside of school</b>  <b>How is technology used differently by others – entertainment / work / email / watching tv on devices / communicating with others</b>  <b>TASK: Refer to SONAR exemplar</b></p>	<p><b>START WITH:</b>  <b>E Safety: I understand I need to keep my password private</b>  <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>Digital Literacy: I can use different software programs and discuss the benefits of their usage</b>  <b>TASK: PM Unit 2.4 Questioning – 2Question, 2Investigate PM Unit 2.3 Spreadsheets – 2Calculate</b></p>	<p><b>START WITH:</b>  <b>E Safety: I know that not everyone is who they say they are on the internet</b>  <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>TASK: PM Unit 2.7 Making Music – 2Sequence</b></p>	<p><b>START WITH:</b>  <b>E Safety: I know what an advert looks like on the Internet.</b>  <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>Coding: I can predict the behaviour of a programmed toy, clearly relating each action to part of an algorithm</b>  <b>I can create a simple program to perform a task</b>  <b>TASK: PM Unit 2.1 Coding – 2Code / Beebots using bluetooth</b></p>	<p><b>START WITH:</b>  <b>E Safety: I can talk about why I should only use the internet for a short amount of time.</b>  <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>Coding: I can create and debug simple programs</b>  <b>I can find and fix simple bugs in programs</b>  <b>I can understand that programs run by following clear instructions</b>  <b>TASK: Refer to SONAR exemplar</b></p>
3	<p><b>START WITH:</b>  <b>E Safety: I know I need to keep my password and personal information secure</b></p>	<p><b>START WITH:</b>  <b>E Safety: I can make good choices about how long I spend online.</b>  <b>TASK: PM: Unit 3.2 Online safety</b></p>	<p><b>START WITH:</b>  <b>E Safety: I know I must check who it belongs to before I copy images or text.</b>  <b>TASK: Refer to 'Byte'</b></p>	<p><b>START WITH:</b>  <b>E Safety: I ask an adult before downloading files and games from the internet.</b>  <b>TASK: Refer to 'Byte'</b></p>	<p><b>START WITH:</b>  <b>E Safety: I can recognise acceptable and unacceptable behaviour online.</b></p>	<p><b>START WITH:</b>  <b>E Safety: I know that some information on the internet is not accurate. I must think carefully before I rely on it.</b></p>

	<p><b>TASK: Refer to SONAR exemplar</b></p> <p><b>THEN:</b>  <b>Searching: Use simple search technologies</b>  <b>SONAR: Use of keywords</b>  <b>TASK: Refer to SONAR exemplar</b></p>	<p><b>THEN:</b>  <b>Searching: Use simple search technologies and recognise that some sources are more reliable than others</b>  <b>SONAR: ranking, known organisations, asking for personal information, cookies, URL</b>  <b>TASK: Refer to SONAR exemplar</b></p> <p><b>Digital Literacy: I know what input and output devices are and how they are used</b>  <b>TASK: Label a photo of a desktop computer work station</b></p>	<p><b>THEN:</b>  <b>Digital Literacy: I can use a range of input and output devices efficiently</b>  <b>SONAR: use mouse, change speakers / printer etc</b>  <b>TASK: Refer to SONAR exemplar</b></p> <p><b>Networks: I understand that the internet is a large network that enables computers to share information</b>  <b>SONAR: IP address, URL, Hyperlink</b>  <b>TASK: Refer to SONAR exemplar</b></p> <p>I can understand, analyse and evaluate a computer simulation  <b>TASK: PM: Unit 3.7 Simulations</b>  <b>2Simulate, 2Publish</b></p>	<p><b>THEN:</b>  <b>Networks: I understand that computer networks allow data to be transferred and shared</b>  <b>SONAR: Central location / servers</b>  <b>TASK: Refer to SONAR exemplar</b></p> <p><b>Digital Literacy: I can make choices on which program is best for a given task</b>  <b>TASK: PM Unit 3.6 Branching Databases - 2Question</b>  <b>PM Unit 3.3 Spreadsheets 2Calculate</b></p>	<p><b>TASK: Refer to SONAR exemplar</b></p> <p><b>THEN:</b>  <b>I can solve an investigation and present the results in graphic form</b>  <b>TASK: Unit 3.8 Graphing 2Graph</b></p> <p><b>Coding: Design, write and debug programs that control or simulate virtual events</b>  <b>Coding: Use logical reasoning to explain how some simple algorithms work</b>  <b>TASK: Programmable Lego unit of work</b></p>	<p><b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>I can use email safely</b>  <b>I can attach files to email</b>  <b>TASK: Unit 3.5 Email (including email safety)</b>  <b>2Email, 2Connect, 2DIY</b></p>
4	<p><b>START WITH:</b>  <b>E Safety: Use technology responsibly and understand that communication online may be seen by others</b>  <b>TASK: Refer to SONAR exemplar</b></p> <p><b>THEN:</b>  <b>Networks: I understand that some computers on a</b></p>	<p><b>START WITH:</b>  <b>E Safety: Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies</b>  <b>TASK: Refer to SONAR exemplar</b></p> <p><b>THEN:</b></p>	<p><b>START WITH:</b>  <b>E Safety: I can use the safety features of websites as well as reporting concerns to an adult.</b>  <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>Digital Literacy: I can use different software programs and different types of hardware</b></p>	<p><b>START WITH:</b>  <b>E Safety: I can make good choices about how long I spend online.</b>  <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>Digital Literacy: I can use more complicated input devices</b>  <b>TASK: Data loggers</b></p>	<p><b>START WITH:</b>  <b>E Safety: I can choose a secure password and appropriate screen name when I am using a website</b>  <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>Searching: I understand how search engines order their search results</b></p>	<p><b>START WITH:</b>  <b>E Safety: I know that anything I share on line can be seen and used by others.</b>  <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b>  <b>Coding: I can use other programs as I code</b>  <b>Create a 'turtle' in paint projects, technology,</b></p>

	<p>network serve particular functions, such as controlling printers or sharing files Explain how the school network works <b>TASK: Refer to SONAR exemplar</b></p>	<p>Coding: I can break programs up into smaller parts Coding: I can use logical thinking to identify and solve potential bugs during coding <b>TASK: Programmable Lego unit of work</b></p> <p>I can use a spreadsheet for budgeting <b>TASK: Unit 4.3 Spreadsheets</b> 2Calculate</p>	<p><b>TASK: Word - publish biographies. Select the most appropriate program eg spreadsheet, word, image editor</b></p>	<p>Digital Literacy: I can use a range of programs to complete a task <b>TASK: PM: Unit 4.6 Animation</b> 2Animate – using a camera on one device and import photos into another program.</p>	<p><b>TASK: SONAR: Eg Google for Kids, Kid Splorer, Kiddle.</b> <b>Unit 4.7 Effective Search Browser</b></p> <p>I can explore stop motion animation I understand the different parts that make up a computer <b>TASK: PM: Unit 4.8 Hardware Investigators</b></p>	<p>robot. Save in work. Open in Logo as a turtle I can use Logo instructions to create a picture <b>TASK: Unit 4.5 Logo</b></p>
5	<p><b>START WITH:</b> E Safety: Understand the need to only select age appropriate content E Safety: I keep my password and personal information private. E Safety: I can discuss appropriate and inappropriate use of the internet. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b></p> <p>Networks: I can use the internet to allow me to share data with another person <b>TASK: SONAR: instant messaging, email etc</b> <b>PM: Unit 5.5 Game Creator</b></p>	<p><b>START WITH:</b> E Safety: I know that a website has an author who is targeting an audience. I know that some people publish inaccurate information on the internet. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b> Digital Literacy: I can use different software programs and different types of hardware (SONAR video) <b>TASK: Using word and publisher</b></p> <p>Searching: I can use more advanced features when searching online I can use a range of search tools to find exactly what I'm looking for</p>	<p><b>START WITH:</b> E Safety: I support my friends to protect themselves and make good choices online. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b> Digital Literacy: I can use a range of programs to complete a task <b>TASK: PM: Unit 5.4 Databases</b> 2Question, 2Investigate</p>	<p><b>START WITH:</b> E Safety: I can explain why I need to protect myself and my friends, and the best way to do this including reporting my concerns to a friend. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b> Digital Literacy: I can use a range of programs to complete a task <b>TASK: PM: Unit 5.3 Spreadsheets</b> 2Calculate</p>	<p><b>START WITH:</b> E Safety: I can explain why I need to protect my computer or device from harm. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b> Coding: I can write increasingly complex programs I can control external hardware from within my programs I can use loops to repeat tasks within a program I can use IF statements to alter the way my programs run I can explain how increasingly complex algorithms solve a given problem <b>TASK: Spheros unit of work</b></p>	<p><b>START WITH:</b> E Safety: I understand how to choose online content for my age group know which resources on the internet I can download and use. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b> I can explore the possibilities of 3d modelling. <b>TASK: Unit 5.6 3D Modelling</b> 2Design and Make</p>

		<b>TASK: Refer to SONAR exemplar</b>				
6	<p><b>START WITH:</b> E Safety: Identify a range of ways to report concerns about content and contact in and out of school <b>TASK: Refer to SONAR exemplar</b></p> <p><b>THEN:</b> Coding: I can combine software and hardware to solve real life problems I can break code up into related instructions, making debugging easier and quicker I can store and retrieve variables in a program I can use loops, variables and IF statements to alter the way my programs run I can use logical thinking to identify and solve potential bugs during coding. <b>TASK: Spheros unit of work</b></p> <p>Digital Literacy: I can design a program for a given audience <b>TASK: Refer to SONAR exemplar</b></p>	<p><b>START WITH:</b> E Safety: Use technology respectfully and responsibly E Safety: I can choose a secure password for different purposes. E Safety: I can explain the consequences of spending too much time online or on a game. <b>TASK: Refer to SONAR exemplar</b></p> <p><b>THEN:</b> Digital Literacy: I can use more than one piece of software to complete a task <b>TASK: Refer to SONAR exemplar</b></p> <p>Networks: I understand how computers are able to communicate and share information <b>TASK: Refer to SONAR exemplar</b></p> <p>Networks: I can use and combine services on the internet to share information <b>TASK: Refer to SONAR exemplar</b></p>	<p><b>START WITH:</b> E Safety: I know which resources on the internet I can download and use (copyright). E Safety: I can check information that I find online. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b> Digital Literacy: I can select appropriate software to use for a given task <b>TASK: PM: Unit 6.4</b> <b>2Blogging</b> <b>2Blog</b></p>	<p><b>START WITH:</b> E Safety: I can explain the consequences of sharing too much of myself online. E Safety: I can explain the consequences to myself and others for not communicating kindly and respectfully. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b> Digital Literacy: I can use software to help me analyse and present data and information <b>TASK: PM: Unit 6.3</b> <b>2Spreadsheets</b> <b>2Calculate</b></p>	<p><b>START WITH:</b> E Safety: I know that using unreliable information will mislead people. E Safety: I know that websites can use my data to make money and target their advertising. <b>TASK: Refer to 'Byte'</b></p> <p><b>THEN:</b> Searching: I can recognise trustworthy sources of information on the internet Searching: I can use a broad range of resources online to find exactly what I'm looking for <b>TASK: Refer to SONAR exemplar</b></p> <p>I can create a picture quiz for young children <b>TASK: Unit 6.7 Quizzing</b> <b>2Quiz, 2DIY, Text Toolkit,</b> <b>2Investigate</b></p> <p>Digital Literacy: I can select appropriate software to use for a given task <b>TASK: Unit 6.5 Text Adventures</b> <b>2Code, 2Connect</b></p>	<p><b>START WITH:</b> E Safety: I always acknowledge the source of materials I use in my work. E Safety: I ask my friends before I use things I created in my work. E Safety: I can identify the benefits and risks of mobile devices I understand the importance of balancing screen time <b>TASK: Unit 6.2 Online safety</b></p>

