

Strand	Citizenship – Through these elements learners will engage with what it means to be a conscientious digital citizen who contributes positively to the digital world around them and who critically evaluates their place within this digital world. They will be prepared for and ready to encounter the positive and negative aspects of being a digital citizen and will develop strategies and tools to aid them as they become independent consumers and producers.			
Citizenship	Element	With increasing independence learners are able to:	With increasing independence learners are able to:	With increasing independence learners are able to:
	Identity, image and reputation	<ul style="list-style-type: none"> explain how their digital usage is tracked, e.g. <i>know basic data protection laws and how organisations are responsible for the security of collected data</i> use strategies for guarding against identity theft and scams that try to access their private information online, e.g. <i>safely manage browser history and cookies</i> 	<ul style="list-style-type: none"> discuss the benefits and risks of presenting themselves in different ways online, e.g. <i>professionally and personally</i> 	<ul style="list-style-type: none"> understand that they have a digital footprint and that this information can be searched, copied and passed on, e.g. <i>know how to check the security configurations of their devices and/or the software they use</i>
	Health and well-being	<ul style="list-style-type: none"> reflect on the role of digital media in their lives and their media habits, e.g. <i>explore how the media can play a powerful role in shaping our ideas about stereotypes</i> 	<ul style="list-style-type: none"> demonstrate healthy online behaviours (physical and psychological) and identify unacceptable behaviour, e.g. <i>in relation to cyberstalking, harassment, abuse of trust and radicalisation</i> 	<ul style="list-style-type: none"> identify stereotypes and their impact in a range of media forms, e.g. <i>critically reflect upon stereotypes in mass media, social media and gaming</i>
	Digital rights, licensing and ownership	<ul style="list-style-type: none"> understand copyright, licensing, fair use, and the rights they have as creators, e.g. <i>consider different ways people license their copyrighted work</i> explain basic copyright laws, e.g. <i>learn that copyright is a legal system that protects their rights to creative work</i> 	<ul style="list-style-type: none"> understand copyright, licensing, fair use, and the rights they have as creators explain basic copyright laws, e.g. <i>explore the ethical and legal ramifications of piracy and plagiarism, and know that they are irresponsible and disrespectful</i> act responsibly as creators and users of creative work, e.g. <i>explore decisions that creators make when exercising their creative rights and responsibilities, giving consideration to ethical, real-life issues</i> 	<ul style="list-style-type: none"> explain the legal and ethical dimensions of respecting creative work, e.g. <i>explore the ethical and legal ramifications of piracy and plagiarism, and know that they are irresponsible and disrespectful; apply understanding of the rules to different scenarios</i>
	Online behaviour and cyberbullying	<ul style="list-style-type: none"> refine strategies to protect themselves and others from possible online dangers, e.g. <i>when communicating online show an active ability to deal with inappropriate behaviour/misuse while actively minimising risks</i> filter the communication received, e.g. <i>sorting out e-mails, deciding whom to follow on social media, etc.; responsibly use digital tools to interact with others using more advanced features</i> demonstrate a basic knowledge of the legal aspects linked to online behaviour, e.g. <i>cyberbullying, harassment, false statements and publishing inappropriate content/images without consent.</i> 	<ul style="list-style-type: none"> identify high-risk situations and active strategies to avoid them, e.g. <i>critically evaluate behaviour to limit exposure to high-risk situations</i> define and identify advanced forms of cyberbullying, how to avoid it and the consequences of such actions critically evaluate the behaviours of others online and identify how they could be beneficial or damaging. 	<ul style="list-style-type: none"> adapt online behaviour and interactions for different audiences, considering global cultural values, e.g. <i>critically evaluate behaviour and interactions taking into account global cultural values; consider how behaviour is perceived by others.</i>

Strand	Interacting and collaborating – Through these elements learners will look at methods of electronic communication and know which are the most effective. Learners will also store data and use collaboration techniques successfully.			
Interacting and collaborating	Element	With increasing independence learners are able to:	With increasing independence learners are able to:	With increasing independence learners are able to:
	Communication	<ul style="list-style-type: none"> manage and use a growing range of online communication accounts and the features offered within each, e.g. <i>e-mail accounts, messaging accounts, etc.</i> 	<ul style="list-style-type: none"> select and use different online communication tools for specific purposes with higher levels of competence, e.g. <i>set up and manage an address book and organise contacts on appropriate mailing lists; independently carry out a video call for a specific purpose including screen sharing where appropriate</i> 	<ul style="list-style-type: none"> select and use different online communication tools for specific purposes with higher levels of competence, e.g. <i>set up relevant mail merge using word processing and spreadsheet software; use advanced features of e-mail provider (signature, auto-reply, read receipt, widgets)</i>
	Collaboration	<ul style="list-style-type: none"> take account of chronological changes made to a file and choose appropriate restore points if needed 	<ul style="list-style-type: none"> independently select and use online collaboration tools to create a project with others 	<ul style="list-style-type: none"> independently select and use a range of online collaboration tools to create a project with others, e.g. <i>make use of online technology to share and present ideas to others</i>
	Storing and sharing	<ul style="list-style-type: none"> track the changes of a document/view the revision history and restore a previous version where appropriate take account of file size and type, and understand that storage drives may have a limited storage space. 	<ul style="list-style-type: none"> use appropriate advanced file-management techniques, e.g. <i>tagging, compression.</i> 	<ul style="list-style-type: none"> understand simple encryption and the purpose of encryption, e.g. <i>to send sensitive data more securely</i> use relevant hyperlinks and account for the appropriate file management technique, e.g. <i>some file storage systems will utilise dynamic hyperlinks so that if a file location is changed, the link remains intact, whereas changing file location in other systems could result in a broken hyperlink.</i>
Strand	<p>Producing – These elements cover the cyclical process of planning (including searching for and sourcing information), creating, evaluating and refining digital content. Although this process may apply to other areas of the framework, it is of particular importance when creating and producing digital content. It is also essential to recognise however that producing digital content can be a very creative process and this creativity is not intended to be inhibited.</p> <p>Digital content includes the production of text, graphics, audio, video and any combination of these for a variety of purposes. As such, this will cover multiple activities across a range of different contexts.</p>			
Producing	Planning, sourcing and searching	<ul style="list-style-type: none"> select and use effective planning techniques search for necessary information and assess the quality of the information found; assess sources of information to determine if they are reliable and reference valid sources, e.g. <i>search a range of sources and critically evaluate search findings</i> 	<ul style="list-style-type: none"> select and use a variety of effective planning techniques search a variety of sources using relevant search techniques with increased complexity; organise previous searches and information for improved functionality, and reference using appropriate methods, e.g. <i>begin to categorise and group searches to make information handling more efficient; ensure that information sources are current, reliable and valid</i> 	<ul style="list-style-type: none"> select and use a variety of effective planning techniques evaluate the reliability of sources of information, justify opinions and reasons for choices and reference using appropriate methods use a range of complex searches independently, e.g. <i>and/or/+/-/not</i>
	Creating	<ul style="list-style-type: none"> use many features of a range of software to produce and refine multimedia components use software tools to create and enhance text, image, sound, animation and video components; combine the components to produce appropriate outcomes for a range of audiences and purposes 	<ul style="list-style-type: none"> use many features of a range of software to produce and refine multimedia components use software tools to create and enhance text, image, sound, animation and video components; combine the components to produce appropriate outcomes for a range of audiences and purposes explore and develop formal text document structures for given purposes 	<ul style="list-style-type: none"> select and use a variety of appropriate software, tools and techniques to create, modify and combine multimedia components use software tools to create, enhance and combine text, images, sound and video and animation for a range of audiences and purposes develop a range of formal text document structures for different audiences and purposes
	Evaluating and improving	<ul style="list-style-type: none"> evaluate own and others' work and justify content for audience, e.g. <i>comment on others' work in relation to layout and content</i> respond to feedback. 	<ul style="list-style-type: none"> justify the reasons for choices and explain the advantages and disadvantages of the different outputs, e.g. <i>produce a basic evaluation report including justification for layout and content</i> suggest and make improvements depending on feedback and self-evaluation. 	<ul style="list-style-type: none"> justify the reasons for choices and explain the advantages and disadvantages of the different outputs suggest and make improvements depending on feedback and self-evaluation that are relevant for audience and purpose.

Strand	<p>Data and computational thinking – Computational thinking is a combination of scientific enquiry, problem-solving and thinking skills. Before learners can use computers to solve problems they must first understand the problem and the methods of solving them.</p> <p>Through these elements learners will understand the importance of data and information literacy; they will explore aspects of collection, representation and analysis. Learners will look at how data and information links into our digital world, and will provide them with essential skills for the modern, dynamic workplace.</p>			
Data and computational thinking	Element	With increasing independence learners are able to:	With increasing independence learners are able to:	With increasing independence learners are able to:
	Problem-solving and modelling	<ul style="list-style-type: none"> • identify different parts of a process, e.g. <i>variables, loops, case statements and comments</i> • predict process outcome after modifying inputs, e.g. <i>predicting the effect of changing/editing a set of instructions</i> • modify a given flow chart to change the variables of an algorithm, e.g. <i>add a process or a counter to it that would increment or decrement values</i> 	<ul style="list-style-type: none"> • identify patterns and opportunities for re-using code (instructions), e.g. <i>parts of a method or instruction list that can be used to solve similar problems in different situations and/or systems</i> • apply logical reasoning to a problem to formulate a solution, e.g. <i>explain and justify how and why a solution to a problem is suitable</i> • modify a given flow chart to change rules of an algorithm, e.g. <i>adjust conditions of actions in a flow chart, for instance changing the boundaries of a counter in a loop to change how the program functions</i> • change an algorithm and predict the outcome 	<ul style="list-style-type: none"> • decompose complex processes and determine the actions of individual parts, e.g. <i>multiple WHILE, FOR and IF in either text-based or block-based programming environments</i> • follow given written instructions or flow charts to determine the function or output of a process • recognise that algorithms are language agnostic • follow and develop logical solutions, e.g. <i>demonstrate how a problem could be solved selecting a suitable method to illustrate</i> • detect and correct simple errors in algorithms, e.g. <i>can identify and correct where a syntax error will occur, for instance missing equal signs, variable names spelled incorrectly</i>
	Data and information literacy	<ul style="list-style-type: none"> • create a data capture form, capture data, search data and create a database or spreadsheet with appropriate data input method. 	<ul style="list-style-type: none"> • construct frequency tables for sets of data, grouped where appropriate, and perform simple analysis on data sets. 	<ul style="list-style-type: none"> • search through large data sets and identify trends where appropriate.