

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"> • understand how to protect themselves from online identity theft, e.g. security symbols such as padlock, phishing, scam websites • understand that information put online leaves a digital footprint or trail, e.g. to aid identity theft • identify risks and benefits of installing software, e.g. identify possible risks of installing free and paid for software, for instance free software could download viruses to the device/ computer 	<ul style="list-style-type: none"> • talk about the impact that the digital content created can have, e.g. think critically about the information shared online; be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online • explain why it is important to discuss their use of technology with an adult, e.g. discuss aspects of positive and negative reputation • maintain secure passwords on a regular basis applying the characteristics of strong passwords and refrain from using the same password more than once 	<ul style="list-style-type: none"> • explain what metadata of a photograph can include, e.g. date, time and location • identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location • identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon • identify the benefits and risks of giving personal information and device access to different software • understand how and why people use their information and online presence to create a virtual image of themselves as a user
	Health and well-being	<ul style="list-style-type: none"> • identify the positive and negative influences of technology on the environment, e.g. consider the different ways free time is spent and begin to find a balance between active learning activities and digital activities • explain the importance of balancing game and screen time with other parts of their lives 	<ul style="list-style-type: none"> • understand the advantages and disadvantages, permissions and purposes of altering an image digitally and the reasons for this 	<ul style="list-style-type: none"> • understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health
	Digital rights, licensing and ownership	<ul style="list-style-type: none"> • understand that copying the work of others and presenting it as their own is called 'plagiarism', e.g. begin to consider consequences of plagiarism • recognise watermarks and copyright symbols, e.g. recognise watermarks on a variety of media, know the reasons for using watermarks and explore how watermarks can be added in different software 	<ul style="list-style-type: none"> • cite all sources when researching and explain the importance of this, e.g. create simple lists for the referencing of digital and offline sources; discuss rights and permissions associated with this • understand that photographs can be edited digitally and the rights and permissions associated with this 	<ul style="list-style-type: none"> • cite all sources when researching and explain the importance of this, e.g. create simple lists for the referencing of digital and offline sources; discuss the rights and permissions associated with this • understand that photographs can be edited digitally and discuss the rights and permissions associated with this
	Online behaviour and cyberbullying	<ul style="list-style-type: none"> • identify actions to report and prevent cyberbullying, e.g. use strategies such as not replying, reporting and saving evidence • identify appropriate behaviour when participating or contributing to collaborative online projects for learning, e.g. devise a set of rules. 	<ul style="list-style-type: none"> • demonstrate appropriate online behaviour and apply a range of strategies to protect themselves and others from possible online dangers, bullying and inappropriate behaviour, e.g. turn off comments on digital media, block users; know how to deal with and report inappropriate content and misuse. 	<ul style="list-style-type: none"> • demonstrate appropriate online behaviour and apply a range of strategies to protect themselves and others from possible online dangers, bullying and inappropriate behaviour, e.g. turn off comments on digital media, block users; identify the risks and legal consequences of sending intimate images and content/sexting; recognise language that could be deemed to be offensive (including racist, sexist, homophobic, transphobic) in online activities.

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"> exchange online communication with other learners, making use of a growing range of available features, e.g. <i>send e-mails with attachments and change formatting (where device allows)</i> 	<ul style="list-style-type: none"> exchange online communication with other learners, making use of a growing range of available features, e.g. <i>when e-mailing, use search function, manage contacts</i> show an understanding of the advantages and disadvantages of different forms of communication and when it is appropriate to use each, e.g. <i>explain when video conferencing may be more appropriate than e-mail, and vice versa; explain the pros and cons of using instant messaging in social contexts; talk about purpose and audience</i> 	<ul style="list-style-type: none"> exchange online communication, making use of a growing range of available features, e.g. <i>manage folders within e-mail including using reporting features to filter spam and make use of webcams to facilitate video calls</i> show an understanding of the advantages and disadvantages of different forms of communication and when it is appropriate to use each, e.g. <i>explain when video conferencing may be more appropriate than e-mail, and vice versa; explain the pros and cons of using instant messaging in social contexts; talk about purpose and audience</i>
	Collaboration	<ul style="list-style-type: none"> manage an online file, adding and responding to comments, e.g. <i>create, share and edit an online file engaging in reflective discussion with teacher and/or peers</i> 	<ul style="list-style-type: none"> work with others to create an online collaborative project for a specific purpose, sharing and appropriately setting permissions for other group members, e.g. <i>editing, commenting, viewing</i> 	<ul style="list-style-type: none"> work with others to create an online collaborative project for a specific purpose, sharing and appropriately setting permissions for other group members, e.g. <i>editing, commenting, viewing</i>
	Storing and sharing	<ul style="list-style-type: none"> understand that there are different types of storage, e.g. <i>local, network, online, removable</i> manage files and folders locally or online, e.g. <i>move files to a different folder.</i> 	<ul style="list-style-type: none"> back up files to a second or third storage device, e.g. <i>removable storage device, network drive (locally or online)</i> search for a specific file upload files from a local drive to online storage. 	<ul style="list-style-type: none"> create and share hyperlinks to local, network and online files password-protect a file.
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"> develop own success criteria to plan a digital task find relevant information using different keywords and search techniques select an appropriate website from search results and begin to consider if the content is reliable 	<ul style="list-style-type: none"> create a written plan using a template provided adjust keywords and search techniques to find relevant information; begin to reference sources used in their work; consider if the content is reliable, e.g. <i>find information using accurate terms, use a range of sources to check validity and understand the impact of incorrect information</i> 	<ul style="list-style-type: none"> plan work independently before beginning the digital task extend strategies for finding information; store previous searches and results for future use, e.g. <i>reference through hyperlinks and bookmark a website</i>
	Creating	<ul style="list-style-type: none"> create and modify multimedia components using a range of software modify and present a range of text, image, sound, animation and video for selected purposes 	<ul style="list-style-type: none"> combine a range of multimedia components to produce an appropriate outcome create, collect and combine a range of text, image, sound, animation and video for selected purposes 	<ul style="list-style-type: none"> use a range of software to produce and refine multimedia components select and combine a range of text, image, sound, animation and video to produce an outcome for a selected purpose; use software tools to enhance the outcomes for specific audiences
	Evaluating and improving	<ul style="list-style-type: none"> give an opinion about their own and others' work and suggest improvements independently and collaboratively, e.g. <i>check through their work and correct their spelling/use a spellchecker; decide if the red line underneath words point to misspelt words; use suggested spellings where appropriate</i> give reasons for choices made, e.g. <i>discuss the benefits and limitations of a spellchecker especially with Welsh language documents.</i> 	<ul style="list-style-type: none"> explain reasons for layout and content of own work, e.g. <i>evaluate the presentation for audience and appropriateness</i> comment on reasons for layout invite feedback/responses from others create groups and share work between them to allow review of work. 	<ul style="list-style-type: none"> explain reasons for layout and content of own work, e.g. <i>evaluate the presentation for audience and appropriateness</i> ensure output is appropriate for specific purpose comment on reasons for layout and content invite feedback/responses from others, e.g. <i>use 'Comment' in Word Online/Excel Online for asking questions or adding suggestions</i> create groups and share work between them to allow review of work.

<p>Strand</p>	<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>			
<p>Data and computational thinking</p>	<p>Element</p>	<p>With increasing independence learners are able to:</p>	<p>With increasing independence learners are able to:</p>	<p>With increasing independence learners are able to:</p>
	<p>Problem-solving and modelling</p>	<ul style="list-style-type: none"> • demonstrate how part of a solution might need repetition • represent a simple solution in a flow chart that contains a looping element, e.g. <i>identify where a repeat or loop may work in a flow chart, for instance traffic lights, and select variables</i> 	<ul style="list-style-type: none"> • design simple sequences of instructions (algorithms) including the use of Boolean values (i.e. <i>yes/no/true/false</i>), e.g. <i>within the algorithm demonstrate the correct use of Boolean values giving an either/or response</i> 	<ul style="list-style-type: none"> • demonstrate how programs or processes run by following a sequence of instructions exactly and in order • demonstrate how an algorithm is useful for representing a solution to a problem through testing • understand that changing instructions can affect or even terminate a process, e.g. <i>moving instructions around in a program could produce unexpected outcomes or cause the program to fail altogether</i>
	<p>Data and information literacy</p>	<ul style="list-style-type: none"> • begin to create data sets and extract information from them with tables, charts, spreadsheets and databases. 	<ul style="list-style-type: none"> • create, explore and analyse data sets, highlighting relationships within them, e.g. <i>using tables, charts, spreadsheets and databases.</i> 	<ul style="list-style-type: none"> • construct, refine and interrogate data sets to test or support an investigation.