

Computing - Year 3 – Skills map





Digital Communication	
IT15	I can demonstrate an awareness of appropriate behaviour when communicating digitally.
IT16	I can discuss the need to be careful online.
IT17	I can discuss how some messages may be malicious or inappropriate and recognise that attachments may be unsafe to open.
IT18	I can explain the need to be responsible and use appropriate language when communicating with others.
IT19	I can demonstrate respect for the ideas and communications of others.
IT20	I can explain the need to keep personal information and passwords private.
IT21	I can explain how to respond if asked for personal details.
IT22	I can discuss the risks of meeting anyone in real life that I have met online.
IT23	I can discuss how cyber bullying is unacceptable.
IT24	I can explain the need for rules when using live forms of communications.


Online Research	
IT25	I can demonstrate using a search engine to find things out online.
IT26	I can create key questions and key words to search for specific things online.
IT27	I can discuss the accuracy and reliability of information found online.
IT28	I can demonstrate retrieving, using and saving sources of information found online (e.g. bookmarks, copy/paste and Save As), sometimes with support.
IT29	I can discuss how some web content may be protected by copyright and cannot be used without permission.
IT30	I can explain how some searches may include unwanted advertising.
IT31	I can demonstrate how to allow useful pop-ups.
IT32	I can explain what to do and who to tell if I encounter inappropriate content online.
IT33	I can explain how search engines work.
IT34	I can begin to demonstrate an understanding that anyone can author content online.
IT35	I can explain that web content can be filtered and that this may not be the case at home.
IT36	I can explain the need to ignore unwanted advertising as they may be a source of adware or malicious software.




Digital Media	
IT1	I can identify the hardware of a desktop computer.
IT2	I can discuss the software of a desktop computer.
IT3	I can continue to demonstrate correct use of a keyboard with increasing speed and accuracy.
IT4	I can demonstrate using a mouse or touch to select and drag objects around the screen.
IT5	I can demonstrate logging on and off using a username and password.
IT6	I can demonstrate using a variety of fonts, colours and effects.
IT7	I can demonstrate using cut, copy and paste for text and images.
IT8	I can demonstrate resizing images and changing the position within a document.
IT9	I can modify and improve my own work.
IT10	I can discuss how some content that uses multimedia (e.g. presentations and/or webpages) look better and are more efficient than others.
IT11	I can demonstrate an understanding that IT can automate manual processes (e.g. cut/paste; find/replace.)
IT12	I can demonstrate an awareness of audience.
IT13	I can discuss how text and digital media may be subject to copyright.
IT14	I can discuss the need to be careful when searching online.

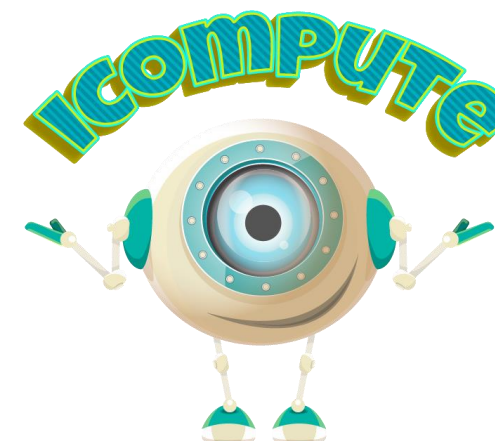
Computing - Year 3 – Skills map

 Data Handling	
IT37	I can create diagrams and charts to answer questions.
IT38	I can interpret diagrams and charts to answer questions.
IT39	I can begin to identify what data to collect to ask and answer specific questions.
IT40	I can demonstrate collecting data and entering it into a database.
IT41	I can demonstrate basic searching and sorting.
IT42	I can explain how data is structured in a database.
IT43	I can recognise similarities and differences between computerised and paper-based databases.
IT44	I can explain how a database consists of records and fields.
IT45	I can discuss the advantages of using databases.
IT46	I can explain how there are different types of data. (e.g. numbers and texts.)
IT47	I can begin to choose how to present data.

 Computer Science	
CS1	I can create a sequence of instructions, some of which are repeated (repetition) and involved choices (selection). e.g. if..then
CS2	I can demonstrate programming a sequence of commands that results in a planned effect.
CS3	To demonstrate programming and testing a simple program.

 Digital Literacy	
DL1	I can find information by moving around a web page, using hyperlinks and the back button.
DL2	I can demonstrate confidently typing web addresses into a web browser.
DL3	I can question the reliability of information found online.
DL4	I can create bookmarks/favourites and use them to access websites.
DL5	I demonstrate copying and pasting information into other applications.
DL6	I can discuss how I use technology at school and at home.
DL7	I can evaluate my own and others work and discuss how to make it better.

	Collect, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content to achieve specific goals.
	The principles of information and computation, how digital systems work and how to put this knowledge to use through programming.
	Use technology safely and respectfully and understand the opportunities for communication and collaboration.

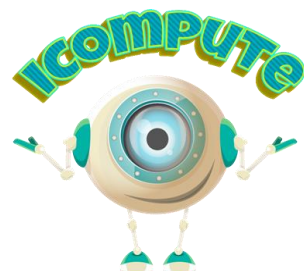


Computing - Year 4 – Skills map



Digital Communication	
IT14	I can demonstrate caution when communicating online.
IT15	I can demonstrate respect for the ideas and communications of others.
IT16	I can explain a number of risks associated with meeting people in real life that I might communicate with online.
IT17	I can explain how I should tell a trusted adult immediately if I am asked to meet in person.
IT18	I can explain how cyber bullying can come in various forms and that it is unacceptable.
IT19	I can explain how to report cyber bullying.


Online Research	
IT20	I can identify and use a range of appropriate search engines to locate online content.
IT21	I can evaluate search engines.
IT22	I can demonstrate the effectiveness of key words on search results and refine when necessary.
IT23	I can evaluate the accuracy and reliability of information found online.
IT24	I can identify whether content has copyright restrictions and can, legally, be used.
IT25	I can explain what to do and who to tell if I encounter inappropriate content online.
IT26	I can explain that copying text directly from any source without permission is theft (plagiarism.)





Digital Media	
IT1	I can select a variety of layouts, formats, graphics and media for a particular purpose and for an intended audience .
IT2	I can modify page size and orientations.
IT3	I can modify work to ensure it is accurate and clear.
IT4	I can choose and import text, audio and graphics from devices, networks or online.
IT5	I can modify images using cropping tools, resize and edit.
IT6	I can select design features such as borders, shading, columns and text boxes.
IT7	I can insert and edit hyperlinks.
IT8	I can create work for an intended audience and improve work to better communicate ideas.
IT9	I can evaluate own and other's work and suggest improvements.
IT10	I can recognise the features of good design in using multimedia. (e.g. presentations/web pages.)
IT11	I can select the correct IT functions to automate processes. (e.g. use cut/paste; find/replace etc.)
IT12	I recognise that text and digital media may be subject to copyright and abide by rules in producing work.
IT13	I can reflect on the need for caution when searching online and talk about what to do if I find unsuitable content.




Computing - Year 4 – Skills map



 Data Handling	
IT27	I can create diagrams and charts to ask and answer questions.
IT28	I can explain how data is represented digitally by computer systems e.g. by a series of zeros and ones (binary system.)
IT29	I can identify what data to collect to ask and answer specific questions.
IT30	I can present data in a database and use search/sort to answer questions.
IT31	I can choose and use appropriate methods to organise, present and interpret data.
IT32	I can demonstrate the need to structure data in a database.
IT33	I can explain the meaning of file, record, field, sort and search.
IT34	I can explain the advantages of using databases to sort, query and classify information quickly.
IT35	I can demonstrate that databases can be used to create a variety of tables and graphs that can be used for different purposes.

 Computer Science	
CS1	I can demonstrate using sequence, selection and repetition in computer programs.
CS2	I can predict the outcome of a given algorithm or program and correctly identify if repetition is involved.
CS3	To modify , test, debug and refine algorithms and programs.
CS4	I can explain that computers store data as numbers.
CS5	I can evaluate my own and other's work and suggest improvements.
CS6	I can collaborate by remixing and reusing code to make new content.
CS7	I can explain that an algorithm is a set of instructions that complete a task.
CS8	I can explain that computers work by following a set of instructions – called a program.
CS9	To demonstrate the use of logical reasoning, decomposition and abstraction to design algorithms.

 Digital Literacy	
DL1	I can explain that a computer network means connected computers.
DL2	I can explain that you can use the internet for activities other than web browsing.
DL3	I can confidently demonstrate entering URLs into the address bar of a browser.
DL4	I can explain that not all information online is reliable and that it needs to be checked.

 INFORMATION TECHNOLOGY	<p>Collect, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content to achieve specific goals.</p>	 COMPUTER SCIENCE	<p>The principles of information and computation, how digital systems work and how to put this knowledge to use through programming.</p>	 DIGITAL LITERACY	<p>Use technology safely and respectfully and understand the opportunities for communication and collaboration.</p>
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Computing - Year 5– Skills map






Digital Media	
IT1	I can continue to demonstrate correct use of keyboard with increasing speed and accuracy.
IT2	I can evaluate the design of a variety of digital resources using a criteria.
IT3	I can plan and create interactive presentations.
IT4	I can demonstrate using hyperlinks in interactive presentations.
IT5	I can create work with a consistent style throughout. (e.g. headings, fonts and colours.)
IT6	I can demonstrate using digital tools to create vector images.
IT7	I can create 3D images using graphical modelling software.
IT8	I can explain how objects can be combined and layered to create vector images.
IT9	I can discuss shapes and lines making up vector images.
IT10	I can explain that 3D images have height, width, depth and can be combined to create graphical models.
IT11	I can discuss the tools that can be used to create, manipulate and edit 3D models and vector images.
IT12	I can discuss the potential for digital media to inform or persuade and understand that multi-media can be combined for particular audiences and purposes.
IT13	I can explain that text, video, images and audio can be subject to copyright and permission may be needed to use the work of others.
IT14	I can evaluate my own work and others, to suggest and/or effect improvements.
IT15	I can modify work to make improvements.
IT16	I can research online safely and seek appropriate help when necessary.
IT17	I can demonstrate an awareness of audience in work.

Digital Communication	
IT18	I can evaluate the effectiveness of a range of digital communication tools.
IT19	I can explain how some messages may be malicious or inappropriate and recognise that attachments may be unsafe to open.
IT20	I can discuss different purposes of digital communications and their possible benefits.
IT21	I can discuss the need to respect the privacy of others.
IT22	I can discuss the possible benefits of using a nickname online.
IT23	I can recognise that other people may not be who they say they are online and try to make contact.
IT24	I can discuss the risks associated with meeting anyone in person that I have met online.
IT25	I can recognise that cyberbullying is unacceptable.
IT26	I can demonstrate an understanding that I should not post images of other people or tag them without permission.
IT27	I can discuss how content posted online can be difficult to remove and viewed by people other than my friends.

Computing - Year 5 – Skills map

Digital Literacy	
DL1	I can find things out by using search technology.
DL2	I can identify a number of activities you can use the internet for (e.g. online gaming, voice over internet, email etc.)
DL3	I can evaluate information provided on one website against multiple alternative sources.
DL4	I can create digital content for specific purposes.

Computer Science	
CS1	I can demonstrate writing and amending computer programs.
CS2	I can demonstrate programming a number of algorithms that achieve a specific outcome.
CS3	I can demonstrate using repetition, variables and conditional statements in computer programs.
CS4	I can modify computer programs by testing it and correcting any errors.
CS5	I can explain how the World Wide Web consists of many websites and that web pages can be accessed using the internet.
CS6	I can explain how web pages are formatted using a type of "code."
CS7	I can demonstrate encoding and decoding messages using a cipher.
CS8	I can discuss the importance of cryptography throughout time.
CS9	I can demonstrate communicating messages using signals.

	Collect, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content to achieve specific goals.
	The principles of information and computation, how digital systems work and how to put this knowledge to use through programming.
	Use technology safely and respectfully and understand the opportunities for communication and collaboration.



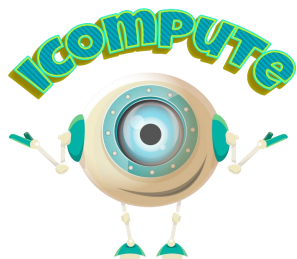
Online Research	
IT28	I can select online sources, where appropriate, for research and resources.
IT29	I can demonstrate a range of search techniques (e.g. including or omitting particular phrases and words.)
IT30	I can demonstrate using appropriate strategies for finding, evaluating and verifying information.
IT31	I can sort fact from opinion and make informed choices about sources of online information to use.
IT32	I can discuss that information online can be fact or opinion and understand that it should be evaluated.
IT33	I can discuss and demonstrate an understanding that domain name extensions can be used to help evaluate the accuracy of online information. (e.g. .co.uk, .com, .ac, .sch, .org, .gove and .net)
IT34	I can discuss what to do and who to tell if I encounter inappropriate content online.
IT35	I can demonstrate an understanding of the concept of copyright and how it applies to material I would like to use.
IT36	I can demonstrate effective online research but not directly copying, but gathering a number of sources and evaluating them for validity and effectiveness.
IT37	I can discuss how linking to the work of others online (rather than copying it) protects the author's work.
IT38	I can discuss the validity, reliability and relevance of online content.

Computing - Year 6 – Skills map



Digital Media

IT1	I can demonstrate using a keyboard with speed and accuracy.	
IT2	I can use a range of criteria to evaluate the design of a variety of digital resources.	
IT3	I can plan and design interactive presentations using a variety of digital media.	
IT4	I can demonstrate the use of a consistent style throughout the work .(e.g. headings, fonts, colours and themes.)	
IT5	I can critically evaluate own and others work .	
IT6	I can modify work to improve it; format and edit to improve clarity.	
IT7	I can independently select the most appropriate IT tools for an intended purpose and audience.	
IT8	I can use digital media to present information that informs or persuades, and combines text, images, video and audio creatively for difference audiences and purposes.	
IT9	I can demonstrate an understanding of and abide by copyright rules when creating digital media.	
IT10	I can research online safely and seek appropriate help when necessary.	



Digital Communication

IT11	I can independently use digital communication to collaborate and communicate inside and outside of school (e.g. email, chats, blogs, SMS and other digital tools.)	
IT12	I can critically evaluate the effectiveness of a range of digital communication tools and suggest appropriateness for audience and/or task.	
IT13	I can demonstrate awareness of the implications of responses to group communications.	
IT14	I can discuss the potential benefits and risks of digital communications and that methods will vary according to purpose.	
IT15	I can discuss how social networks or other online environments have settings which can be altered to protect myself.	
IT16	I can demonstrate how to protect my own and other's privacy.	
IT17	I can discuss the benefits of using a pseudonym for online use and when it might be appropriate.	
IT18	I can discuss how some malicious people may use a variety of techniques to make online contact.	
IT19	I can discuss how I should not meet anyone I have met online, in person, without telling a trusted adult.	
IT20	I can discuss how to report cyber bullying.	
IT21	I can discuss the need to obtain permission for posts that contain images or personal information of others.	
IT22	I can demonstrate an understanding that content posted online can be permanent.	



Online Research


IT23	I can select the most appropriate search techniques for a particular tasks (e.g. image search, in-site searches.)	
IT24	I can question the origin of web content and understand that key information can be checked to help evaluate reliability; such as domain name, author, dates, links and contact details.	
IT25	I can use domain name extensions to help evaluate online information (e.g. .co.uk; .com; .ac; .sch; .org; .gov; and .net.	
IT26	I can sort fact from opinion and make informed choices about sources of online information to use.	
IT27	I can explain what to do and who to tell if I encounter inappropriate content online.	
IT28	I can explain that copying text directly from any source without permission is theft (plagiarism.)	
IT29	I can discuss when and where the internet can be used for research.	
IT30	I can demonstrate an understanding of the concept of copyright and how it applies to material I would like to use.	
IT31	I can demonstrate an understanding of the need to obtain permission when using work of others online; but know it is safe to link to the resources without obtaining permission.	
IT32	I can collate, evaluate and interpret online content for relevance and suitable to my own work.	
IT33	I can critically evaluate the validity, reliability and relevance of online content.	

Computing - Year 6 – Skills map

Data Handling	
IT32	I can create , refine and interpret graphs and charts.
IT35	I can design questions and perform searches on more than one criterion on more complex databases; identifying patterns and relationships.
IT36	I can check the reliability of data; identify and correct errors.
IT37	I can present data to a given audience and display findings using other digital tools (e.g. multi-media.)
IT38	I can investigate the effects of changing variables in spreadsheets.
IT39	I can enter formulae into a spreadsheet to investigate the effects of changing variables (e.g. simple calculations.)
IT40	I can identify and enter formulae into cells.
IT41	I can create simple spreadsheets to investigate problems.
IT42	I can recognise the need for accuracy when designing , entering and querying data.
IT43	I can recognise the consequences of using inaccurate data.
IT44	I can discuss how IT enables large quantities of data to be organised and sorted and discuss the advantages.
IT45	I can demonstrate an understanding for the need for data protection and some of the rights of individuals over stored data and how it affects the use and storage of data.
IT46	I can demonstrate an understanding of where and when it is appropriate to use a spreadsheet to support an investigate and explain choices.
IT47	I can demonstrate how spreadsheets can be used to explore mathematical models.
IT48	I can demonstrate how spreadsheets can automate functions, making it easier to test variables.

Computer Science	
CS1	I can create and use efficient methods of iteration (repeats and loops) and nested conditional statements (if..then...if..etc.)
CS2	I can systematically test computer programs for bugs and modify them to work as expected. (debugging)
CS3	I can create procedures that call on other procedures.
CS4	I can create and amend more complex computer programs to create a variety of outcomes.
CS5	I can decompose “problems” by splitting them into smaller “problems” and designing solutions to each part.

Digital Literacy	
DL1	I can create web content using basic HTML.
DL2	I can explain that internet search engines use algorithms to find web content.(e.g. web crawling.)
DL3	I can explain that search engines are organised in order of popularity.
DL4	I can demonstrate using search technology and clear search terms to view web pages and obtain information and data.
DL5	I can create digital content for specific purposes and audiences.
DL6	I can demonstrate that a computer network is a number of computers and devices that are connected.
DL7	I can demonstrate an understanding of computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration .



INFORMATION TECHNOLOGY

Collect, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content to achieve specific goals.



COMPUTER SCIENCE

The principles of information and computation, how digital systems work and how to put this knowledge to use through programming.



DIGITAL LITERACY

Use technology safely and respectfully and understand the opportunities for communication and collaboration.