

## Computing Skills Overview – Based on Integra Scheme of Work

Year Group	Online Safety Skills	Safety Vocab	Programming Skills	Program Vocab	Data Skills	Data Vocab	Media Skills	Media Vocab	Multimedia Skills	Multi-media Vocab	Impact of Technology Skills	Impact Vocab
R	<p>I can ask an adult when I want to use the Internet.</p> <p>I can tell an adult when something worrying or unexpected happens while I am using the Internet.</p> <p>I can be kind to my friends.</p> <p>I can talk about the amount of time I spend using a computer / tablet / game device.</p> <p>I am careful with technology devices.</p> <p>I can log onto a device</p>	<p>Like/dislike</p> <p>Click</p> <p>Mouse</p> <p>Cursor</p>	<p>I can make a floor robot move.</p> <p>I can use simple software to make something happen.</p> <p>I can make choices about the buttons and icons I press, touch or click on.</p>	<p>Forward</p> <p>Backward</p> <p>Turn</p> <p>Spin</p> <p>Side</p> <p>Up</p> <p>Down</p> <p>Under</p> <p>Top</p>	<p>I can tell you about different kinds of information such as pictures, video, text and sound.</p>	<p>Same</p> <p>Different</p> <p>Picture</p> <p>Writing</p> <p>Like/dislike</p>	<p>I can move objects on a screen.</p> <p>I can create shapes and text on a screen.</p> <p>I can use technology to show my learning.</p> <p>I can use a paint program to create a picture</p>	<p>Click</p> <p>Highlight</p> <p>Click</p> <p>Mouse</p> <p>Cursor</p> <p>Shape names</p> <p>Brush/spray/crayon</p> <p>Camera</p> <p>lpad</p>	<p>I can find and identify the letters and numbers on a keypad</p>	<p>Letter/number names</p> <p>Space</p> <p>Return/enter</p>	<p>I can tell you about technology that is used at home and in school.</p> <p>I can operate simple equipment.</p> <p>I can use a safe part of the Internet to play and learn.</p>	<p>lpad</p> <p>Tablet</p> <p>Camera</p> <p>CD</p> <p>On/off</p> <p>Play</p> <p>Skip</p> <p>Rewind</p>
1	<p>I can keep my password private.</p> <p>I can tell you what personal information is.</p> <p>I can tell an adult when I see something unexpected or worrying online.</p> <p>I can talk about why it's important to be kind and polite.</p> <p>I can recognise an age appropriate website.</p> <p>I can agree and follow sensible e-Safety rules.</p>	<p>Rules, personal, private, website, password, online, website, internet, technology, information, favourite, hyperlink, link, discussion,</p>	<p>I can give instructions to my friend and follow their instructions to move around.</p> <p>I can describe what happens when I press buttons on a robot.</p> <p>I can press the buttons in the correct order to make my robot do what I want.</p> <p>I can describe what actions I will need to do to make something happen and begin to use the word algorithm.</p> <p>I can begin to predict what will happen for a short sequence of instructions.</p> <p>I can begin to use software/apps to create movement and patterns on a screen.</p> <p>I can use the word debug when I correct mistakes when I program.</p>	<p>Sequence, program, control, distance, direction, turn, predict, precise, algorithm, debug</p>	<p>I can talk about the different ways in which information can be shown.</p> <p>I can use technology to collect information, including photos, video and sound.</p> <p>I can sort different kinds of information and present it to others.</p> <p>I can add information to a pictograph and talk to you about what I have found out.</p> <p>I can use video and sound recording devices</p>	<p>Photograph, sort, group, video, sound, match, pictogram, tally, film, image, photograph, label,</p>	<p>I can be creative with different technology tools.</p> <p>I can use technology to create and present my ideas.</p> <p>I can use the keyboard or a word bank on my device to enter text.</p> <p>I can save information in a special place and retrieve it again.</p> <p>I can use different brushes and tools (including fill and shapes) in a paint program to create pictures</p>	<p>Brush, tools, fill, shapes, paint, image, focus, record, return, space, sound, sound effect,</p>	<p>I can use the keyboard or a word bank on my device to enter text.</p> <p>I can save information in a special place and retrieve it again.</p> <p>I can write sentences using a word processing program, using index fingers on a keyboard, spaces between words, return / enter to start a new line and backspace to delete as I go</p>	<p>Keyboard</p> <p>Save</p> <p>Retrieve</p> <p>Spacebar</p> <p>Enter key</p> <p>Backspace key</p>	<p>I can recognise the ways we use technology in our classroom.</p> <p>I can recognise ways that technology is used in my home and community.</p> <p>I can use links to websites to find information.</p> <p>I can begin to identify some of the benefits of using technology.</p>	<p>Keyboard, screen, display, technology, computer, power, plug, lead, plug socket, battery, speaker, microphone, computer, laptop, mobile phone,</p>

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			I can plan and test a sequence of instructions I can write a simple algorithm									
2	I can explain why I need to keep my password and personal information private. I can describe the things that happen online that I must tell an adult about. I can talk about why I should go online for a short amount of time. I can talk about why it is important to be kind and polite online and in real life. I know that not everyone is who they say they are on the Internet.	Online, website, share, information, search	I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions. I can tell you the order I need to do things to make something happen and talk about this as an algorithm. I can program a robot or software to do a particular task. I can look at my friend's program and tell you what will happen. I can use programming software to make objects move. I can watch a program execute and spot where it goes wrong so that I can debug it. I can plan and enter a sequence of instructions I can replicate an algorithm I can use repeat	predict, debug, program, instruction	I talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder. I can make and save a chart or graph using the data I collect. I can talk about the data that is shown in my chart or graph. I am starting to understand a branching database. I can tell you what kind of information I could use to help me investigate a question. I can create decision trees and branching databases	Data, chart, graph, branching database, question, pictogram, sort, image, photographs	I can use technology to organise and present my ideas in different ways. I can use the keyboard on my device to add, delete and space text for others to read. I can tell you about an online tool that will help me to share my ideas with other people. I can save and open files on the device I use. I can use a range of tools in a paint program to mix colour and create pictures and repeating patterns	Picture, tools, repeating patterns, image, sound, shift, caps lock, capital, edit, arrow, text, backspace, delete	I can use the keyboard on my device to add, delete and space text for others to read. I can save and open files on the device I use. I can write sentences with a word processing program using shift and caps lock for capitals and changing the font style, size and colour. I can use the arrow keys to move around text and backspace and delete to correct text.	Delete Shift key Font Arrow keys	I can tell you why I use technology in the classroom. I can tell you why I use technology in my home and community. I am starting to understand that other people have created the information I use. I can identify benefits of using technology including finding information, creating and communicating. I can talk about the differences between the Internet and things in the physical world.	Keyboard, screen, display, technology, computer, power, plug, lead, plug socket, battery, internet, web browser, hyperlink, menu, search, browser, Google Chrome, Safari, Internet Explorer, Skype, email, telephone,
3	I can talk about what makes a secure password and why they are important. I can protect my personal information when I do different things online. I can use the safety features of websites as well as reporting concerns to an adult. I can recognise websites and games appropriate for my age. I can make good choices about how long I spend online.	Password, protect, communicate, internet, online, community, respectful, tone, edit, email, letter, header, greeting, body, subject line	I can break an open-ended problem up into smaller parts. I can put programming commands into a sequence to achieve a specific outcome. I keep testing my program and can recognise when I need to debug it. I can use repeat commands. I can describe the algorithm I will need for a simple task. I can detect a problem in an algorithm which could result in	Predict, program, instruction, debug, repeat, procedure, subroutine, angle, input, output,	I can talk about the different ways data can be organised. I can search a ready-made database to answer questions. I can collect data help me answer a question. I can add to a database. I can make a branching database. I can use a data logger to monitor changes and can talk about the information collected.	Database, branding database data, data collection, data logger	I can create different effects with different technology tools. I can combine a mixture of text, graphics and sound to share my ideas and learning. I can use appropriate keyboard commands to amend text on my device, including making use of a spellchecker. I can evaluate my work and improve its effectiveness. I can create pictures using a range of tools	Digital image, media, paint package, crop, import, tools, effect, edit, font, style, size, colour.	I can use appropriate keyboard commands to amend text on my device, including making use of a spellchecker. I can create text based documents incorporating images selecting appropriate fonts, size and colour for a purpose and emphasis. I can use bold, underline and italics for emphasis. I can edit text by highlighting, to change fonts, size, colour and save their changes.	Spell checker Edit highlight	I can save and retrieve work on the Internet, the school network or my own device. I can talk about the parts of a computer. I can tell you ways to communicate with others online. I can describe the World Wide Web as the part of the Internet that contains websites. I can use search tools to find and use an appropriate website. I think about whether I can use images that I	Variable, simulation, test, predict, design, option, choice

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	<p>I ask an adult before downloading files and games from the Internet. I can post positive comments online.</p>		<p>unsuccessful programming. I can use logo commands to achieve desired effect I can solve problems with the robot and replicate on screen I can write a program</p>				<p>and effects such as blur, diffuse, darken, reflect and repeats</p>				<p>find online in my own work. I know what a simulation is and why they are used. I know that physical systems can be simulated. I know that simulations can be different to a real life situation. I know that simulations can be used to test a prediction. I know that simulations allow people to explore a variety of options</p>	
4	<p>I choose a secure password when I am using a website. I can talk about the ways I can protect myself and my friends from harm online. I use the safety features of websites as well as reporting concerns to an adult. I know that anything I post online can be seen by others. I choose websites and games that are appropriate for my age. I can help my friends make good choices about the time they spend online. I can talk about why I need to ask a trusted adult before downloading files and games from the Internet. I comment positively and respectfully online.</p>	<p>Responsibility, community, digital citizen, identity theft, personal information, private information, register, keyword, precise</p>	<p>I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts. I can use an efficient procedure to simplify a program. I can use a sensor to detect a change which can select an action within my program. I know that I need to keep testing and improving my program while I am putting it together. I can use a variety of tools to create a program. I can recognise an error in a program and debug it. I recognise that an algorithm will help me to sequence more complex programs. I recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology. I can write and edit programs</p>	<p>Repeat, procedure, algorithm, logo, sequence, program, precise, instructions</p>	<p>I can organise data in different ways. I can collect data and identify where it could be inaccurate. I can plan, create and search a database to answer questions. I can choose the best way to present data to my friends. I can use a data logger to record and share my readings with my friends. I can distinguish between different types of data I can search and sort information in a database</p>	<p>Data, chart, graph, branching database, question, numerical, list, text, field, search, sort, data logger.</p>	<p>I can use photos, video and sound to create an atmosphere when presenting to different audiences. I am confident to explore new media to extend what I can achieve. I can change the appearance of text to increase its effectiveness. I can create, modify and present documents for a particular purpose. I can use a keyboard confidently and make use of a spellchecker to write and review my work. I can use an appropriate tool to share my work and collaborate online. I can give constructive feedback to my friends to help them improve their work and refine my own work. I can create pictures by choosing from a</p>	<p>layout, format, track modify, spellcheck, tools, copy and paste, bullet points, indent, columns, edit, sound, audio file, import, sound effect, track, graphic</p>	<p>I can change the appearance of text to increase its effectiveness. I can use a keyboard confidently and make use of a spellchecker to write and review my work. I can create text based documents using appropriate layout for a purpose including use of bullet points, numbering, indenting and columns and selecting appropriate fonts</p>	<p>Bullet points Indent columns</p>	<p>I can tell you whether a resource I am using is on the Internet, the school network or my own device. I can identify key words to use when searching safely on the World Wide Web. I think about the reliability of information I read on the World Wide Web. I can tell you how to check who owns photos, text and clipart. I can create a hyperlink to a resource on the World Wide Web.</p>	<p>search engine, website, file, folder, ranking, reliability, URL, file path.</p>

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			I can write and use procedures I can define variables in programs (to score points etc)				range of tools and effects and by copying and pasting sections of a picture.					
5	I protect my password and other personal information. I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult. I know that anything I post online can be seen, used and may affect others. I can talk about the dangers of spending too long online or playing a game. I can explain the importance of communicating kindly and respectfully. I can discuss the importance of choosing an age-appropriate website or game. I can explain why I need to protect my computer or device from harm. I know which resources on the Internet I can download and use.	Spam, junk mail, cyberbullying	I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program. I can refine a procedure using repeat commands to improve a program. I can use a variable to increase programming possibilities. I can change an input to a program to achieve a different output. I can use 'if' and 'then' commands to select an action. (inputs and outputs) I can talk about how a computer model can provide information about a physical system. I can use logical reasoning to detect and debug mistakes in a program. I use logical thinking, imagination and creativity to extend a program. I can use looping and repeat in my programs I can group commands to create sub-routines I can identify position using programming language	Scratch, debug, program, algorithms, sprite, block script, predict, broadcast, subroutine, procedure,	I can use a spreadsheet and database to collect and record data. I can choose an appropriate tool to help me collect data. I can present data in an appropriate way. I can search a database using different operators to refine my search. I can talk about mistakes in data and suggest how it could be checked. I can complete complex searches	Data, chart, graph, branching database, question, field, numerical data, spreadsheet, cell, row, column, format,	I can use text, photo, sound and video editing tools to refine my work. I can use the skills I have already developed to create content using unfamiliar technology. I can select, use and combine the appropriate technology tools to create effects that will have an impact on others. I can select an appropriate online or offline tool to create and share ideas. I can review and improve my own work and support others to improve their work.	Storyboard, layout, format, track changes, animation, stop frame, edit, blog, sound, audio file, import, sound effect, track, graphic, hyperlink.	I can create text based multimedia documents selecting an appropriate layout, fonts and tools for a purpose and audience. I can use right click to correct spellings, look up words and find synonyms	Tools Right click Synonyms Review tab	I can describe different parts of the Internet. I can use different online communication tools for different purposes. I can use a search engine to find appropriate information and check its reliability. I can recognise and evaluate different types of information I find on the World Wide Web. I can describe the different parts of a webpage. I can find out who the information on a webpage belongs to.	network, cookie, WAN (wide area network) LAN (local area network), wiki, blog, discussion, survey,
6	I protect my password and other personal information. I can explain the consequences of sharing too much	Relationship, online presence, digital footprint	I can deconstruct a problem into smaller steps, recognising similarities to solutions used before. I can explain and	Sequence, program, control, distance, direction,	I can plan the process needed to investigate the world around me. I can select the most effective tool to collect data for my	Filter, sort, formula, data, mean, average,	I can talk about audience, atmosphere and structure when planning a particular outcome. I can confidently	Film, cut, copy, paste, edit, audience	I can create and amend text based documents selecting an appropriate layout, fonts and tools for contrasting purposes and audience.	Layout tab Hyperlink Transition	I can tell you the Internet services I need to use for different purposes. I can describe how information is	Call to action, navigation, cookies, privacy,

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<p>about myself online. I support my friends to protect themselves and make good choices online, including reporting concerns to an adult. I can explain the consequences of spending too much time online or on a game. I can explain the consequences to myself and others of not communicating kindly and respectfully. I protect my computer or device from harm on the Internet.</p>	<p>t, digital citizen, secure sites, cyberbullying, media, messages, gender</p>	<p>program each of the steps in my algorithm. I can evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm. I can recognise when I need to use a variable to achieve a required output. I can use a variable and operators to stop a program. I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen. I can use logical reasoning to detect and correct errors in an algorithms and programs.  I can create programs to simulate and control real-life situations I can control on-screen mimics and physical devices I can plan algorithms in flowchart annotations I can create variables in my programs</p>	<p>turn, predict, precise, algorithm, debug, repeat, selection, subroutine</p>	<p>investigation. I can check the data I collect for accuracy and plausibility. I can interpret the data I collect. I can present the data I collect in an appropriate way. I use the skills I have developed to interrogate a database. I can use spreadsheet tools to manipulate the data</p>	<p>spreadsheet, inaccurate, field, variable, search</p>	<p>identify the potential of unfamiliar technology to increase my creativity. I can combine a range of media, recognising the contribution of each to achieve a particular outcome. I can tell you why I select a particular online tool for a specific purpose. I can be digitally discerning when evaluating the effectiveness of my own work and the work of others.</p>	<p>ce, trim, effect.</p>	<p>I can incorporate hyperlinks and transitions in documents and presentations.</p>	<p>Design tab background</p>	<p>transported on the Internet. I can select an appropriate tool to communicate and collaborate online. I can talk about the way search results are selected and ranked. I can check the reliability of a website. I can tell you about copyright and acknowledge the sources of information that I find online.</p>	<p>data protection, terms and conditions, HTML tags, HTML, URL, domain, hypertext markup language,</p>
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