Subject Lead Progression Maps

The Subject Progression Maps outline the content that is taught in each subject within our Inspire Curriculum. They provide clear progression and sequencing within individual subjects for each year group. The knowledge and skills have been mapped out to ensure previous learning is built upon progressively each year.

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| Computing Progression Map | | |
| Topic | Year Group | Content |
| E-Safety | Year 1 | * Use technology safely and respectfully, keeping personal information private * Understand that personal information should not be shared online * Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies |
| Year 2 | * Use technology safely and respectfully, keeping personal information private * Identify where to go for help and support when they have concerns * Know ways reporting inappropriate behaviours and content to a trusted adult * Recognise advertising on websites and learn to ignore it * Begin to evaluate websites and know that everything on the internet is not true |
| Year 3 | * Identify the difference between the work of others which has been copied (plagiarism) and restructuring and re-presenting materials in ways which are unique and new * Understand that copyright exists on most digital images, video and recorded music * Competently use the internet as a search tool * Understand the need for caution when using an internet search for images and what to do if they find an unsuitable image |
| Year 4 | * Understand concepts relating to online safety help others * Understand the importance of online safety * Know a range of ways of reporting inappropriate content and contact |
| Year 5 | * Use appropriate tools to safely communicate with others within and beyond school * Understand why they should not publish pictures of other people on the internet, or tag them in photos, without their permission * Understand that content which has been put online can be difficult to remove |
| Year 6 | * Demonstrate the safe and respectful use of a range of different technologies and online services * Identify more discreet inappropriate behaviours through developing critical thinking * Recognise the value in preserving their privacy when online for their own and other people’s safety * Identify what bullying and cyberbullying are and say how people should deal with cyberbullying * Look in the address bar of a website so check for security * Find a link to a privacy policy * Identify a gender stereotype in a media message |
| Problem Solving and Logical Thinking | Year 1 | * Use logical reasoning to predict the behaviour of simple programs (Scratch, Beebot) * Create a simple series of instructions - left, right, forwards and backwards (Scratch, Beebot, powerpoint, microsoft word)) * Plan, test and amend a set of instructions (Scratch, Beebot, powerpoint, microsoft word)) * Understand what algorithms are; how they are implemented as programs on digital devices (web browser) |

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| Computing Progression Map | | |
| Topic | Year Group | Content |
|  | Year 2 | * Develop instructions using logical reasoning (Scratch, J2Code) * Identify the parts of a program that responds to a specific event and initiate specific action. (For example - they can write a cause and effect sentence of what will happen in a program) * Explain what an algorithm is and show an awareness of the need to be precise with their instructions. * Create a simple program that achieves a specific purpose with their designs displaying a growing awareness of the need for logical programmable steps * Identify and correct simple errors (debugging) * J2Code * Scratch |
| Year 3 | * Experiment with variables to control models * Give an on-screen robot directional instructions (e.g. 90/45 degree turns) * Write more complex programs (leading to varying outcomes) * Understand input and output * Use commands to draw a shape (e.g. square, rectangle and other regular shapes on screen) |
| Year 4 | * Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs * Design, write and debug programs that accomplish specific goals * Solve problems by decomposing them into smaller parts * Use sequence, selection and repetition in programs work with variables and various forms of input and output |
| Year 5 | * Combine sequences of instructions and procedures to turn devices on or off * Understand concepts such as input and output * Explore ‘What is’ questions by playing adventure or quest games * Plan a solution to a problem using decomposition (e.g. developing a computer game or creating a website) |
| Year 6 | * Develop an awareness of the capabilities of smartphones and tablets * Identify the resources they’ll needed to accomplish a project * Turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs * Become familiar with another programming toolkit or development platform * Test and debug their program as they go and use logical methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code * Thoroughly test and evaluate their program |

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| Computing Progression Map | | |
| Topic | Year Group | Content |
|  |  | * Coding displays an improving understanding of variables in coding, outputs such as sound and movement, inputs from the user of the program * MS Kodu * LEGO® Education WeDo 2.0 Core Set |
| Creative Content | Year 1 | * Use technology purposefully to create, organise, store, manipulate and retrieve digital content |
| Year 2 | * Confidently create, name, save and retrieve content * Demonstrate an ability to organise data (presentation, animation/video) * Retrieve specific data, conduct simple searches using web pages as a resource and find information on a website * Experiment with a range of media (drawing tools, texts, pictures/photos, animations and sound) * Microsoft Office * Web browsers (Google Chrome, Safari, etc) * iMovie / Movie Maker |
| Year 3 | * Use editing software to manipulate media (e.g. crop, add effects, manipulate audio) * Manipulate sound by editing an audio track and applying audio effects * Combine text, images and sounds and show awareness of an audience |
| Year 4 | * Capture images using a range of devices (e.g. webcams, screen capture, scanning, visualiser and internet) * Select media to download, import and export * Copy graphics from a range of sources and paste them into different programs * Insert media into a presentation * Manipulate text in a range of different ways * Make informed software choices when presenting information |
| Year 5 | * Listen, download, produce and upload a variety of broadcast media (e.g. video, podcast) * Manipulate sounds using audio editing software (e.g. Audacity) * Select music from a variety of sources and incorporate it into multimedia presentations * Edit a simple film * Use a range of presentation applications and multimedia * Create a homepage for a website that contains links to other pages |
| Year 6 | * Use web-based research skills to source tools, content and other resources * Consider key marketing messages, including identifying a unique selling point * Develop a printed flyer or brochure incorporating text and images * Further develop knowledge, skills and understanding in relation to creating a website * Further develop skills relating to shooting and editing video |

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| Computing Progression Map | | |
| Topic | Year Group | Content |
|  |  | * Make clear connections to the audience when designing and creating digital content. * Design and create their own blogs to become a content creator on the internet * Google Drive applications- Microsoft Office, Microsoft Windows Movie Maker® or iMovie |
| Digital Literacy | Year 1 | * Understand what algorithms are; how they are implemented as programs on digital devices * Understand that programs execute by following precise and unambiguous instructions * Recognise the different forms of digital communication (e.g. emails address, twitter handle etc) * Understand the appropriate vocabulary according to equipment available * Recognise common uses of information technology beyond school |
| Year 2 | * Recognise uses of information technology beyond school * Begin to understand how things can be shared electronically * Communicate safely online (e-mail, tweets) * Create, edit and format text (insert / delete/ bold/italic/ underline) * Microsoft Office * School Twitter page |
| Year 3 | * Open and send an attachment * Find relevant information by browsing a menu * Search for an image, then copy and paste it into a document * Copy and paste text into a document * Know how to manipulate text (e.g. underline text, centre text, change font and size) * Save files (e.g. word doc, pictures) to an appropriate folder |
| Year 4 | * Identify the benefits of using technology to send messages and communicate * Check spelling and grammar correctly * Use a search engine to find specific websites * Navigate using an internet browser * Understand the function, features and layout of a search engine * Assess the reliability of different websites |
| Year 5 | * Conduct a video chat with someone elsewhere in the school or in another school * Use bullets and numbering tools * Use a search engine to conduct keyword searches * Compare the results of different searches * Download a document and save it to the computer * Decide which sections are appropriate to copy and paste from at least two web pages |

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| Computing Progression Map | | |
| Topic | Year Group | Content |
|  | Year 6 | * Address accessibility and inclusion issues * Understand and can explain in some depth the difference between the internet and the World Wide Web * Know what a WAN and LAN are and can describe how they access the internet in school * Google Apps for Education/ VLE/GitHub/ Basecamp Justinmind Prototyper/Pencil Project/ Microsoft PowerPoint® * Apps: SketchyPad or iMockups (pay-for apps) Apps: Web browser (Safari) |

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| Computing Key Vocabulary | | | | | |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| code, bug, predict, | logical reasoning, | digital, media, video, | logical reasoning, | communicate, internet, | privacy, cyberbullying, |
| debug, algorithms, | predict, program, | audio, image, download, | content, contact, | publish, permission, | stereotype, abstraction, |
| retrieve, amend, digital, | debugging, algorithms, | upload, attachment, text, | algorithm, detect, | sequence, instruction, | decomposition, |
| device, save, load | relevant, retrieve, | font, copy, paste, | capture, device, | procedure, device, | composition, |
|  | purposeful, manipulate, | information | graphics, manipulate, | input, output, solution, | development platform, |
|  | personal information, |  | debug | decomposition, | systematic, line of code, |
|  | private, format, code |  |  | download, upload, | variables, in-puts, out- |
|  |  |  |  | broadcast, manipulate, | puts, web-based |
|  |  |  |  | audio, editing, software, | research, |
|  |  |  |  | multimedia, | shooting/editing, world |
|  |  |  |  | presentation, | wide web, internet, |
|  |  |  |  | application, homepage, | WAN, LAN |
|  |  |  |  | website, links |  |