Reception

Computing	Digital Literacy
Giving instructions that can be followed - human coding.	**Children can handle, navigate around an ipad, identify and open apps.**
- Children should be able to understand and follow basic instructions - start, stop, turn left, turn right, move forwards, sit, touch. - Children should be able to understand and follow enhanced instructions - e.g RUN ,move forwards x number of steps, touch x number of times, etc. - Children should understand that when the adult uses the word 'RUN' in computing terms, it means the 'Robot' should begin the given instructions - Children should understand that when the adult uses the word 'Program' it means the instructions that we give the 'Robot'. - Children should understand the instruction 'REPEAT' and use it. - Children should be able to make up their own programs for each other, and demonstrate (taking turns to be the robot and the 'programmer'). - Children should understand that the language is transferable (start, stop, run, turn, etc will be used in other computing lessons).	- Children should be able to safely **open** an ipad and be **familiar** with the basic functions of lock, home button and volume control. - Children should **understand** that different apps do different things and they can be **identified** by their logo and app name. - Children should be able to become proficient in other basic tablet **navigation**, such as swiping in different directions and double clicking the home button to close apps, as well as recognise the battery level. - Children should become **familiar** with the different basic apps ipads are equipped with, such as the camera, photos, notes for typing and educreations for drawing. - Children should **know** that ipads are delicate pieces of equipment and should be treated with care and not left exposed to hazards.
Dash Apps	**Children can log into the suite, know the parts of a computer and use Paint**
Go	- Children should be able to sit at a suite machine and recognise the keyboard and mouse as an input device which can control the computer. They should also recognise other parts of the suite machine such as the monitor and wires, that link components together. - Children need to understand that anybody can use the computer they are sat on, however they need to log in using their log on card and this is personal to them. They should identify the username input and the password input are separate things. - Children should aim to log into the suite machine independently. - Children should be able to identify the desktop elements such as the task bar, the desktop icons, the start button and that the computer's programs can be found here. - Children should be able to move the cursor around the screen with some degree of accuracy, calling upon fine motor skills. - Children should be able to identify the left and right mouse buttons (red and yellow) and learn that they do different things, as well as the number of clicks performed. - Children should use their cursor to open paint, via the start button. - Children should be able to select the paintbrush tool from the toolbar and draw pictures, practicing their fine motor skills, according to the selected topic (e.g. fish, for under the sea topic). - Children should have confidence to explore the other tools and recognise the toolbar is where they can be found.
The Go app is a basic Dash controlling app - it allows the movement of dash, along with sounds and light control, like a remote control car. There is no element to code Dash to do things.	

Year 1

Computing	Digital Literacy

Dash - path

Path app is a basic form of coding - children need to follow the instructions on the app to code Dash in the correct way. There are different levels including a racetrack, farmyard and streets.

Children to apply what they have learnt from the human coding to Dash, by understanding that devices can be coded in the same way.
- Children can open the 'Path' app on the ipad, and connect to their Dash by looking at its name e.g. Ben. Children can click the + button to search for robots to connect to.
- Children can use the first level to see how Dash follows instructions - draw a path, add actions, click Dash's button to set him off.
- Once this has been understood, children can work through the 3 environments (27 levels of coding) to help Dash do things. This uses a range of skills like teaching children how to input instructions, run a program and debug a program if it not correct.

Children learn to type using the typing skill progression software

- Children should be able to **login independently** using their own personal login.
- Children should be able to **identify the desktop elements** such as the taskbar, the desktop icons, the start button and that the computer's programs can be found here.

- Children should be able to type with a good degree of accuracy, using fingers and thumbs on both hands using the software provided. www.typingclub.com/sportal/ typingclub clearly shows children where to place each finger on the keyboard and works strategically through letter groups. It regularly reviews skills and builds upon them to improve typing skills. The program is easy to use, with minimal navigation required, meaning children's time and focus is spent on typing. Children do not have an account, so their personal progress should be recorded by the teacher, so the following lesson the child knows what level to start at again. As basic skills are built upon, games are brought in to consolidate skills, however it is essential that teachers are ensuring children are using both hands and not reverting to single finger typing. typingclub.com should be launched from AB tutor, meaning children's time is spent learning to type.

Children use practice their typing skills on a word processor

- Children should be able to **identify and open** the Word program via the start menu. Children should then be able to select a blank word document and recognise it as a piece of digital paper.
- Children should be able to **type with a good degree of accuracy** pre-written work, from another lesson, onto their word document, using typing skills accquired from year 1.
- Children should be to **identify the full stop and comma key** and use them within their typed work.
- Children should **identify and use the numerical keys** across the top of the keyboard.
- Children should **identify and use the shift key** to capitalise a letter.
- Children should be able to **highlight their text** and **change the size of** it, understand that the greater the number, the greater the size.
- Children should be able to make **selected text bold and underlined.**
- Children should be able to highlight **selected text and change its colour.**
- Children should be able to highlight **selected text and change the font style.**
- Ultimately, children should be given time to **refine these skills** and become familiar and confident with typing, using pieces of work that they have previously written in class, which are

Year 2

Computing	Digital Literacy	Multimedia
Dash - Wonder App TO Y2	**Children can create presentations using Microsoft Powerpoint**	**Children can create a multimedia presentation which uses videos, stills and audio; that also demonstrates creativity and personality**

Dash - Wonder App TO Y2

- Children know that Dash can be coded to perform different tasks using apps. Dash will follow instructions that he has been given.
- Children can connect to their given dash using its name and the + button within the app.
- Children can work through the levels on the Wonder app, completing coding task.
- Children should be assessed on coding understanding, complexity of code making, ability to de-bug, speed of coding and creativity of coding.

Hour of Code - Moana and Progression to Star Wars.

- Children **explore** how 'hour of code' works, they can also understand what is needed to be done to progress in the 'game'.
- Children are able to progress through the levels and **understand** the instructions, and demonstrate understanding to an adult.
- Children can **recognise** the 'turns' in 'hour of code' and begin to forward think the code.
- Children demonstrate the ability to **DEBUG** the code, whilst also demonstrating the ability to keep amending code to achieve the correct outcome.
- Children understand the **repeat** function, and explain what it does and understand that it saves time.
- Children show willingness to try a partly complete code and **test** it, before editing it to complete.

Coding skills

- Children can design programs that accomplish specific goals, such as creating as scoring points in a game.
- Children can design and create programs (software) such as creating games.
- Children can debug code that accomplish specific goals
- Children can use repetition in programs to simplify code.
- Children can use logical reasoning to detect and correct errors in code.

Children can create presentations using Microsoft Powerpoint

- Children should be to **open the powerpoint program** and make references to word. They should also recognise that the white page with like a piece of paper that can be designed upon.
- Children should **understand that powerpoint can be used to create presentations** about different things, such as past events, ideas or knowledge.
- Children should be able to **edit the title slide** to suit the intended project outcome, according to topic. They should use their word skills to manipulate the text (size, font, colour, bold, underlined) to add interest and style.
- Children should be able to **insert new slides** and change the layout to suit the information they are trying to convey.
- Children should be able to **change the design** of the slide to add style and interest.
- Children should be able to use the **insert image** function to select appropriate images to support their presentation.
- Children should be able to **add basic animations** to either text or images, and think about how these add interest and character to their presentation.

Saving Work

- Children should **understand** that once finished, they must save their work in order to retrieve it again, this is done by pressing the save icon and giving the document a name. Children should know that this must be done before exiting the program, and does not just apply to word.
- Children should **identify the save button** on Word and Powerpoint and navigate through to shared drive, then their class, and save their work as their name in there. This process should be taught each lesson to embed and make it habitual.
- Children should **understand** that if their work is not saved, it will be lost, and that folders are used to organise work, just like trays in their classroom.

Basic Internet Exploration

- Children should **know** that a browser is a piece of software that acts as a gateway to the internet, children should understand that the internet is a large group of computers that are connected together, called a network.
- Children should **know** that the blank bar is called a **URL bar** and is where a website's unique address can be inputted or found.
- Children should **understand tabs show different open pages**, and you can have multiple web pages open without opening multiple browsers, and these can be individually be closed.
- Children should **know** that the **back and forward buttons** can be used to navigate to previous pages, without typing the URL in again, making navigation easier.
- Children should **know** that **activity on browsers is tracked**, called history, which can be a useful tool for finding previously visited webpages.
- Children should **know** that **webpages can be bookmarked**, so they can easily be opened again, for frequently used webpages.
- Children should **know** that the **refresh button** refreshes the page, which sends a request for the page data again, which can in turn solve problems.

Children can create a multimedia presentation which uses videos, stills and audio; that also demonstrates creativity and personality

- Children are able to identify and open the splice app and identify the main features, namely the timeline and viewing window.
- Children are able to select pre-recorded photos and insert them into their movie, then order the photos into the desired position according to the intended project.
- Children are able to select a range of transitions between photos and adjust the time delay to add effect.
- Children are able to add filters to their photos to add effect, and adjust the duration of the photo for effect.
- Children are able to add appropriate text and adjust it to add effect.
- Children are able to add audio to create effect. Audio genre, length and placement are thought about to best enhance the movie.
- Children can keep reviewing their presentations and make constant changes, thinking critically about the quality and order of their piece.
- Children can use the skills to produce presentations which demonstrate creativity and personality, that clearly portray the intended project outcome.

Year 3

Computing	Digital Literacy	Multimedia
Kodu - basic world creation - Children can log into the suite machine and open the KODU Game Lab program. Children should understand the menu options and what they do. - Children can open a 'new world' and understand that the piece of land infront of them is their 'world' and it can be manipulated to their design. Children can see the toolbar at the bottom of the page and know that these different tools do different things. Children can use the hand tool to move around the world. - Children can manipulate the world in a creative way: Children can use the 'ground brush' to make more land and delete land. Children can see that down the side of the screen there are instructions that help them with the tool they are using. Children can use the 'up/down' tool to move land up or down. Children can use the 'flatten' tool to smooth ground. Children can use the 'roughen' tool to create hilly ground. Children can add water using the 'water tool'. - Children can change their world to suit a particular theme, such as a world for Dragons.	**Children can use their G-Suite account to produce Google Docs, slides and sheets.** - Children should **understand** that they have a personal log on to the google suite and this is a cloud based service, so can be accessed anywhere in the world with an internet connection. - Children should be able to **log in to the G-suite** (drive) account using their firstname.surname@fulbridgeacademy.co.uk email address and generic password. Children should then change their password to a personal one. Children should understand that as this is their personal account, their password needs to be personal to them and that it must be remembered. - Children should **become familiar with the G-suite 9 dots**, which is a central navigation point. From this, they can access their drive. Children should be able to navigate to their drive account and become familiar with the layout, specifically the new button. - Children should be able to **open a Google Doc** and identify links to Microsoft Word. Children should then be able to use Google Docs to word process previously written work in accordance with their topic. (See Google Docs skill breakdown below). - Children should be able to **open a Google Slide** and identify links to Microsoft Powerpoint. Children should then be able to use Google Slides to create a presentation in accordance with their topic. (See Google Slides skill breakdown below). - Children should be able to **open a Google sheets**. Children should understand that this software is used for creating tables of information, usually numerical. Children should then be able to use Google sheets to create spreadsheets in accordance with their topic. (See Google Docs skill breakdown below).	**Children can create videos that demonstrate creativity, personality and style** - Children are able to identify and open the Imovie app and create a new project. - Children are able to insert media that they have previously filmed or acquired by selecting the media and clicking create movie. - Children should familiarise themselves with the elements of the app, namely the timeline at the bottom, the insert media button. - Children can rearrange media by dragging and dropping them on the timeline. - Children are able to split a video clip into different frames and use the add titles function to add text to enhance their movie. - Children can identify the transitions button between different media and chose interesting transitions to enhance their movie, adjusting the time delay to add effect. - Children are able to create high quality videos, which show personality and creativity.
	Children can explore the internet safely and in the most efficient ways **LOOK THROUGH - WHAT TO KEEP?** - Children should **understand** that the internet hosts a wealth of information, both reliable and unreliable and navigating it profliently is an essential life skills. Children should understand that there are different browsers to access the internet, of different merit. - Children should use skills learnt in Year 2, basic internet navigating, to **navigate to different webpages** of interest according to the topic. - Children should be able to **access a search engine**, preferably google, and know that by typing into it, can produce millions of results. - When searching, children should **understand** that search engines use keywords to search for results, therefore children should use keywords to search, and not full sentences. - Children should **know** that generally, the first or second page of results are the most likely to hold the information they are looking for. They should also understand that they should click to open the website, and not rely on the preview for their information.	
	Children can organise their Drive account using appropriate folders Skills to be taught as their Google Drive account is used.	

Year 4

Computing	Digital Literacy	Multimedia

Computing

Kodu - advanced code

- Children can create a world using the world construction tools.
- Children can insert a 'rover' KODU and resize it to an appropriate size.
- Children can code the rover to move around the world (see code) Children can adjust the speed settings appropriately.
- Children can add castle object into the world and resize it accordance with the rover size.
- Children can code the castle to shoot at the rover if it comes into close contact. (see code).
- Children can copy and paste their coded castle multiple times to multipy the amount in the game.
- Children can add coins into the game which can be collected by the player.
- Children can code the coin to vanish when the rover bumps into it. Children can copy and paste the coded coin to multiply the amount.

Coding skills Y3

- Children can design programs that accomplish specific goals, such as creating as scoring points in a game.
- Children can design and create programs (software) such as creating games in KODU.
- Children can debug code that accomplish specific goals
- Children can use repetition in programs to simplify code.
- Children can use logical reasoning to detect and correct errors in code.

Coding skills Y4

Digital Literacy

Children can create resources which can be used by other classes and show effective research skills

- Children should be **fluent** in using their G-suite account and should therefore be able to **pick an appropriate method of presenting information.** When given a brief, children should be able to pick the most appropriate program, thinking about their choice carefully.
- Children should **demonstrate** careful thought about how to present their information, in the form of a resource, perhaps for use by another class.
- Information should be **researched, presented and accompanie**d with appropriate images and other resources.
- Resources should be **presented in an engaging and interesting way**, with design being a large focus for assessment.

Children can use Microsoft Excel to create useful spreadsheets

- Children should be able to use the start menu to **identify Microsoft Excel** and open it, then open a new blank spreadsheet. Children should make references to google sheets that they have previously used, and see that the programs do the same thing.
- Children should be able to **perform the skills for google sheets:**
- *Children should be able to give their document an appropriate title, which will reference their document in the future.*
- *Children should understand that the sheet they see in front of them can be used to input data, normally numerical, such as number of hot dinner or packed lunches.*
- *Children should understand that the vertical set of numbers indicate the row number, and the horizontal set of letters represent the column letter. From these, we can identify different cells, such as A1.*
- *Children should therefore be able to construct basic tables, such as girls and boys who have hot dinners. These tables can be as advanced as per child's capability, but basic tables of 2 or more aspects of data are required.*

- Children should see the familiar buttons of docs and slides, and **know** that they do the same thing (e.g. bold, underline, text size).
- With a constructed table, children should **understand** that google sheets can perform mathematical equations for them, such as addition. Children should know that these are called formulas, like recipes.
- Children should be able to **construct** basic formulas for addition =a1+a2, knowing that every formula starts with an = sign, and uses similar mathematical symbols to those taught in maths.
- Children should **use formulas**, of varying complexity, on their tables, the minimum being basic addition, to give total values.
- Children should know **how to resize cells** to fit their data
- Children should know **how to add outlines** to their tables for clarity.
- Children should **use the ctrl keyboard button** to select multiple cells for formatting.

- In addition the above skills, children should be able to **add conditional formatting to cells**, to perform automatic tasks such as 'when YES typed, cell turns green'.

Multimedia

Children can create a stop motion animation movie

- Children are able to identify and open the I Can Animate It Lite app and identify the main features of the home screen.
- Children can open a new project and know that the screen shows same function as the camera, and is used as the recording element of the app.
- Children should know that stop motion animation involves taking a multitude of photos, called frames, that when played next to each other create the illusion of a video. The more frames taken with smaller movements between results in higher quality animations.
- Children can record frames and see that they are aligned along the bottom of the screen on the timeline and know that this is their video being built.
- Children can see that after each frame is taken, the previous one is left on the screen as a 'onion skinning'. This is to remind children of the last position which can be used to improve quality of the animation.
- Children can use the play function to constantly review their animations and make changes, such as deleting and re-ordering frames by selecting them.
- Children can use the time-lapse feature of the app, which means the app can automatically take frames every set amount of seconds.
- Children use the skills to create high quality animations with an emphasis on constant reviewing and refining of the timeline, which also show personality and creativity.

Video creation

- Children can log onto the imac using their personal credentials and navigate to the imovie application. Children should **understand** that imovie on the imac is the same as imovie on the ipads, but the imac application is more powerful.
- Children can open a new blank project and **know the elements of the screen such as the timeline, preview box and function buttons.**
- Children can **import media** into their workspace using the 'File' 'Insert media' selection (see media insertation process below).
- Children can **select and drag media** into the

Year 5

Computing	Digital Literacy

HTML basics.

- Children understand that websites are made up of code, children understand the difference between Google Sites, that uses a drag and drop facility, and HTML that uses a universal language of code.
- Children can open notepad and understand that this is where you input code. Children can open a browser and understand that this is where the code is displayed as a website.
- Children understand that tags (< >) are used to input code. Tags are opening < and closing >. Everything between the tags are instructions and not displayed on screen. Between tags are things show on screen, and tags always work in pairs. /> is used to signify the closing of instructions.
- Children understand that HTML tells the computer that we are creating a webpage and everything should be put between HTML tags. <HTML> all code goes here </HTML>
- Children understand that a header is like a title at the top of the webpage. <header> this is the title of my webpage </header>
- Children understand the title shows the tab name. <title> this is the title of my webpage </title>
- Children understand that the body of the webpage is the main part of the page. <body> this is the body of my webpage </body>
- Children can change the size of text on their webpage using h (height) and a number e.g. <h1> this is the body of my webpage </h1>
- Children can make text bold this text is bold , make text italics <i> this text is italics </i> and make text underlined <u> this text is underlined </u>
- Children can change the colour of text on their webpage using color= . <body> <color=blue> this is the body of my webpage </body> </color=blue>
- Children understand that tags must be nested, which means the tags should be symmetrically place. <body> <h1> this is my webpage </h1> </body>
- Children can insert an image into their webpage by <img src="images/myimage.jpeg/">
- Children can insert hyperlinks, which link to other pages that they have created. link test e.g. click here

Children can write correctly formatted emails and use their email system

- Children should be able to **open their G-suite account** and access their personal GMail account. Children should **know** that an email system allows them to send messages to anyone with an email address, instantly, anywhere in the world. They should also know the email is a hugely important communication tool, and one that they will use throughout life.
- Children should **know that they can send and receive emails**, to their unique email address. To compose an email, children should click compose. They should know that the 'to' field is where the recipient's email address is sent to, and that emails require subjects.
- Children should **know how to construct an email** correctly, as per email writing requirements.
- Children should be able to **personalise their signature**.
- Children should be able to **send a complete, formatted email** to someone.
- Children should **understand** that when they receive an email, it appears in their inbox, and like text messages, you can see 'sent mail' which is any emails which have been sent.
- Children should **know what CC is, and BCC**, and their functions and appropriate usage.
- Children should know how to **attach a document** to their emails, to share information with each other.
- Children should also **know** that other email systems are available and work in a similar way.
- Children should know that the **search function** can be used to find archived emails quickly.
- Children should **understand** that they can see when they have received an email and can use the star function to save important emails.
- Children begin to **think critically** about sender's address, and suspect fraudulent emails, phishing scams and dangerous links.

Children can complete an open project using various software. THINK ABOUT THIS IF NEEDED?

- Children will have a good idea of what technology to use for different tasks, or projects.
- Children are able to select a piece of technology to create something topic based, using previously acquired skills.
- Children should be able to articulate why they have chosen a piece of technology, and how it will help them achieve their outcome. They should also be able to articulate how they came to this decisions, and show reasoning.
- Children have used technology to complete a project and shown consistent skill in the creation process, ultimately leading to a successful outcome.

Coding skills

- Children can design programs that accomplish specific goals, such as creating as scoring points in a game.
- Children can design and create programs (software) such as creating games in KODU.
- Children can debug code that accomplish specific goals
- Children can use repetition in programs to simplify code.

Year 6

Computing	Digital Literacy
HTML - style sheets (blocks and columns) **RECAP Y5**	**Children can use Microsoft Publisher to produce different publications** **OPEN PROJECT AT BOTTOM PAGE**
- Children can complete the year 5 skills for HTML. - Children can create unordered lists on their website. - example, coffee - example, tea - Children can create an ordered list on their website. - example, coffee - example, tea (this numbers the list) - Children can create a marquee (scrolling text animation) <marquee> this is the text I want to scroll across my screen </marquee> Images can also be used, see image insertion process. - Children can insert a GIF onto their website <img src="images/myimage.gif/"> . (same process as image). - Children can create a style sheet, which sets rules for aspects of the website to follow, to avoid repeating code (CSS).	- Children should be able to **open Microsoft Publisher** and look at a range of templates available, and decide which one best fits their intended outcome. - Children should **make references** to other office programs, and google programs and recognise similar features. - Children can open a pre-designed template and understand the features of the program, namely the toolbars across the top and work area centrally. - For certain templates, such as booklets, children understand how the document will be printed and then folded to create the end outcome. - Children can edit the templates to suit the intended project, such as flyers, posters, invitations, labels etc. - Children know the different tools available to use such as text boxes, picture insertion, font style and colour change, and these should be used to show individual design choices.
	Children can complete an open project using various software
Coding skills ADAPT	- Children will **have a good idea** of what technology to use for different tasks, or projects. - Children are able to **select a piece of technology** to create something topic based, using previously acquired skills. - Children should be able to **articulate why they have chosen a piece of technology**, and how it will help them achieve their outcome. They should also be able to articulate how they came to this decisions, and show reasoning. - Children have used technology to complete a project and shown consistent skill in the creation process, ultimately leading to a successful outcome.
- Children can design programs that accomplish specific goals, such as creating as scoring points in a game. - Children can design and create programs (software) such as creating games in KODU. - Children can debug code that accomplish specific goals - Children can use repetition in programs to simplify code. - Children can use logical reasoning to detect and correct errors in code. - Children can solve problems by decomposing code into smaller parts - Children can use selection in programs, which is when a program has to make a decision with more than one potential different outcome. - Children can work with variables in programs, such as when a score reaches a certain value, something happens. - Children can use logical reasoning to explain how some simple algorithms work. - Children can debug an algorithm that contains errors.	