Computing Curriculum Map Key Stage 2

	Autumn Term 1st half	Autumn Term 2nd half	Spring Term 1st half	Spring Term 2nd half	Summer Term 1st half	Summer Term 2nd half
YEAR 3	**Google Slides Presentation** Using PC's and Laptops 1 Remind children how to login and access the G Suite . Show them where to access google slides. Demo a simple slide presentation point out the features pictures, text animation transition. Demo adding text. Get the children to add some text and name their presentations. Let them explore adding text. 2 As a class brainstorm topic based facts and information the children could add to a presentation. Show them how to add images from the www. Get the children to start creating a topic based presentation. 3 Demo adding simple animations to text and images. Emphasise less is more. Ge them to add suitable animations to their presentations. 4. Demo adding transitions to the slides of their presentation again emphasise less is more. Continue creating their presentations. 5. Show how to add video from Google search. Make sure they understand only short videos work well. Get them to add suitable videos to their presentations. 6. Finish creating their presentations. The finished presentations can be put into a new google site, saved onto the shared drive or printed out as pdfs.	**Scratch Programming** Using Laptops and PC's 1 Introduce scratch and show how to login to the school account. Demo getting the cat sprite to move around. Explain the size of the square is move. Show how to draw a line. 2 Demo using repeat to create the squares. Get the children to create different sized shapes. 3 Demo adding new sprites and from www Demo use different angles to create diff shapes. Get the children to create multiple sprites creating different shapes. 4 Challenge the children to add new backgrounds see if they can create a house. 5 Carry on creating house and if finished try to write their name. Emphasise the debugging they are doing by changing their programs to make them work. 6. Finish houses or names. The finished programs are saved in the school account. They can be added to a new google site as links or the links can be added to a document or the school website.	**E Safety LGFL CyberPass Keeping personal information safe.** Online 1 Remind how to create an animation using Puppet Pals and images from the www. Let them explore adding different characters from the www and different backgrounds. 2 Show the children the first of the childnet SMART pirate crew videos Get them to write a storyboard to use for their animations. Explain that this is as an algorithm. Get them to base their animations on this. 3 Repeat with a different video 4 Repeat with a different video 5 Repeat with a different video 6 Repeat with a different video The final animations can be saved as a video and added to a google web site. They can be uploaded to a google drive. Or all put into a class iMovie	**Introduction to iMovie** Using iPads This project can be easier when completed in longer blocks if possible block out mornings or afternoons. Intro iMovie on iPad. add picture and video from within the app explore creating videos by adding photos and video. 2 Show how to add soundtrack. Brainstorm book review or suitable topic based idea and what could be produced using the app. Get the children to explore the different ideas from the brainstorm as trials. 3 Demo creating a storyboard for a video. Get the children to storyboard a topic based or book review video. (algorithm) 4 Get the children to start creating using the storyboards and iPads. 5 Share iPads by checking whose movie is on the iPad and sharing. Carryon completing videos. 6 Complete videos The movies can be added to a new google site or just uploaded to a google drive folder.	**Hopscotch Programming** iPads 1 Show how to use app. Login open a new project, use the game starts and movement blocks to get a character to move around the screen. Allow them to explore the different movement blocks. 2 Demo the instructions needed to move in a square by acting like a robot and have the children give you instructions. Explain these instructions make an 'Algorithm'. Get the children to translate this into getting the characters to move in a square, show them how to add a draw a trail. 3 Get the children to add multiple characters making different sized squares. Get children to explore using the repeat function to make their code more efficient. 4 Show the children how to create a triangle (turn of 120). as a class create an algorithm to draw a house. Challenge the children to turn this into code. 5 Continue creating the house code. emphasise that as they try things and change them they are 'debugging' 6 Finish the house and if completed try creating code to write their names. The final programs are saved in the hopscotch account. They can be published and shared using a link. Alternatively screen shots of the code can be taken stored and printed.	**Google Sites** Using Laptops and PC's Using PC's and Laptops 1 Remind children how to login and access the G Suite . Show them where to access new google sites. Demo a simple site point out the features pictures, text background image images , links. Demo adding text and images. Get the children to add a title and add some text and name their sites. Let them explore the app 2 As a class brainstorm topic based facts and information the children could add to a site. Show them how to add images from the www. Get the children to start creating a topic based site. 3 Demo adding video Emphasise less is more. Show how to create new pages with links. Show how to add hyperlinks. 4. Demo showing how to add google maps and docs and presentations 5.Continue creating their sites 6. Finish creating their sites. The finished sites can be linked to the school website, and shared with suitable links.

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YEAR 4	**iMovie Trailers** Using iPads 1 Demo opening iMovie and researching the different trailers. Show how to customise the film details. Demo adding a piece video to the template. Get children to explore creating trailers. 2. Explore the different types of shots and how the video clips can be edited. 3. Show how to add photos from the www to the trailers. 4.As a class brainstorm what sort of trailer they could make based on the topic if possible. Show how to add a puppet pal video to the trailer. 5 Allow children to continue to create trailers if possible allow an afternoon or morning to complete the trailers. 6. Continue and finish trailers. The movies can be added to a new google site or just uploaded to a google drive folder.	**Scratch Programming** Laptops PC's or iPads 1. introduce animating a sprite explore animating sprites. 2 introduce moving sprite by keyboard instructions explore moving and animating. 3 introduce if touching and a score variable. 4. Brainstorm an algorithm for a tag game. Get the children to write out their algorithm for the game and start creating it. 5 continue to create game. 6 Finish game and embellish if completed. The finished programs are saved in the school account. They can be added to a new google site as links or the links can be added to a document or the school website.	**E Safety Childnet SMART. Google Slide Presentation** Online and Laptops PC's 1. Remind the children of the the SMART videos explain that they are going to create google slide presentations based on the SMART videos with links to the videos within their slide presentation. Remind the children how to logon and create a google slide presentation and show them how to access the SMART videos. Over the 6 sessions challenge the children to create their presentations. Watch a different video each week and display good creative work to inspire the children	**Networking** Laptops PC's 1 introduce the concept of a network by reminding the children of how the google cloud works. watch video from shared drive lesson demo a network using the bare foot computing uplugged lesson. 2 demo the collaborative benfits of a network and get the children to describe what is happening when they add text to the shared document. Get them to collaborate on their own documents in 4's 3 perrenporth map route from shared drive lesson. 4 Show how to find their computers ip address get everyone to share their ip addresses in a shared google doc week 5 from shared slide show 6 Use tracking websites to track different web address routes around the world. Create a google map of one route. The written work can be saved as evidence. Google maps of routes and shared lists of ip address's and collaborative documents.	**Garage Band** iPads 1 show how to open app and create new project. Show how to use the smart instruments. Let the children explore create sounds with the instruments. 2. Show how to create and record a smart drum back beat. Get the children to create and record a drum back beat. Show the children how to name their projects 3. Share the iPads so the children can continue their projects. Show how use the chords facility to add an instrument track to their projects. Let them continue to create their music tracks. 4 Show how to add more bars and link them to play as one. Explore verse chorus structure and get the children to add a simple structure to their music. 5 and 6 Continue creating their tracks until finished aim for a 4 section verse chorus verse chorus structure. The children's music can be shared as mp4 sound files and saved in a google drive or added to a site to be shared.	**J2E Databases** Laptops PC's 1. Play top trumps explore info and structure of the cards with the correct terminology. Get the children to brainstorm creating their own set of cards what info etc could they have. Start creating their own sets. 2 Finish creating their top trumps sets. 3 Look at the J2E database app on LGFL. Show how to create a simple database. Explain that databases are really good ways of storing large amounts of information. Show the children a paper telephone directory. Demo how a digital version superior. get them to create a simple database about the class members. 4 Brainstorm possible databases they could create for their topic if possible other suitable topics if not. 5 collect info and create databases. 6 Show how to interrogate the databases. Get the children to think of suitable questions to interrogate their databases record the answers.

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YEAR 5	**iMovie** iPads 1 Demo opening and creating a movie rather than a trailer. adding photos adding video remind the children they can use puppet pals videos and iMotion animations. watch a news report and analyse the elements. get the children to practice interviewing each other and recording it. 2. show how to create a news report template. Brainstorm as a class how they could produce a newsreport on based on their topic. within the brainstorm see if they can come up a way to use puppet pals or animation. Get the children to storyboard a news report on paper. 3 start creating their movies Remind the children of the elements they will need to create the news report. 4, 5, 6 carry on creating movies share any good examples to inspire others. The movies can be combined into one saved on a new google site or saved in a google drive or on the school drive.	**Hopscotch** iPads 1 Remind the children how to open and start a new project with the app. get the children to create the code for a drawn square. Show them how to create different shapes by changing the repeat and the angle. Get the children to add multiple characters drawing all the different shapes up to a dodecahedron excluding heptagon. 2 Show the children how to put a shape code (explain this is known as a subroutine) inside another repeat loop. Show how the 2nd repeat loop "calls" the shape subroutine each time it repeats. Explain the 2nd repeat loop repeats x angle needs to make 360 for a full pattern. Get the children to experiment create different patterns. 3 Give the children an algorithm to create a flower field on the screen and get them to start create their code. 4 show the children the different inputs in Hopscotch. See if they can adapt their code to react to different inputs. 5. Show the children the etch a sketch game. As a class brainstorm the algorithm for the etch a sketch. Challenge the the children to create the code for the game. Give them the clue they will need to set the angle before each tilt move and will have to keep debugging until they get the right angle for each tilt. 6 Finish the etch a sketch code and challenge the children to create a new game based on the different inputs. The final programs are saved in the hopscotch account. They can be published and shared using a link. Alternatively screen shots of the code can be taken stored and printed.	**e Safety CyberPass LGFL** PC's Laptops Follow the 'Play Like Share' resources pack from ThinkUKnow CEOP website.	**HTML editing Glitch** PC's Laptops 1. Show the children how to log on to the Mozilla goggles website and add the app to the tool bar demo using the app to remix different webpages Explain that the stuff they are changing is code called HTML Let the children remix different webpages. (screen shot the remixed webpages to save and print) 2. Show the children how to log on to the Glitch website. explain how html works. demo changing the text on the new webpages. Get the children to explore changing the text and viewing it. show them how to use the <h1>, <h2> etc heading tags. 3 show how to use the <p> <b> tags get the children to experiment with different sizes and bold 4 Show the children how to upload an image to the glitch assets. Show them how to add an <img> tag and access the image in the HTML. 5 Show to use the CSS sheet to change the font of the text using the <h> tags and google fonts. 6 Challenge the children to create a simple webpage with images and different scripts and fonts. The web pages can be published and links added to a new google site or to the school website screen shots can be saved and printed of the html and the web page.	**Garage Band Podcast/Radio show** iPads 1. Remind children how to access and create a new project in garage band. Play some podcasts with interviews. Analyse as a class the features of a podcast. get the children to practice interviewing each other. 2. Show the children how to plan out a simple interview with 4 or 5 questions for the children to use to ask each other. Role play for the children. Get the children to record 2 interviews and save them 3 Give the children some different roles and help them to understand how these people might talk. Get them to plan out a simple interview about a subject maybe topic based. 4 As a class plan out a short radio show. eg interview weather. sport breaking news what's coming up next. Get the children to start recording their radio shows 5, 6 finishing radio shows. The recordings can be saved on the school drive or a google drive. They could be linked in a website.	**G Mail** PC's Laptops 1 Remind the children how to logon to a G suite account. Demo opening the g mail app. Throughout these lessons emphasise the correct behaviour and e safety when using e mail. Explain the different parts of the g mail screen. Put the pairs into 2's preferably across the room and show how to send a short email and how to reply. Get the children to practice sending e mail to each other. 2. Show how to send to multiple recipients and how to reply to only 1. Demo the game 20 questions. Get the children to play 20 questions with each other by e mail. 3 Show the children how to add an attachment. Provide some docs and picts for the children to practice sending to each other. 4 Show how to use the e mail addresses to collaborate by sharing the different media. Get the children to collaborate on a topic based shared google slides presentation. 5 and 6 finishing their presentations. the finished presentations can be saved in a google drive or on the shared drive. They could also be embedded in a google site. Screen shots of the e mails can be taken and printed or saved

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YEAR 6	**Keynote Presentations** iPads Using iPads 1 Demo opening the keynote app. Remind them of the features of a simple slide presentation. Demo adding text. Get the children to add some text and name their presentations. Let them explore adding text. 2 As a class brainstorm topic based facts and information the children could add to a presentation. Show them how to add images from the www. Get the children to start creating a topic based presentation. 3 Demo adding simple animations to text and images. Emphasise less is more. Get them to add suitable animations to their presentations. 4. Demo adding transitions to the slides of their presentation again emphasise less is more. Continue creating their presentations. 5. Show how to add video from from the camera roll or within the app. Make sure they understand only short videos work well. Get them to add suitable videos to their presentations. 6. Finish creating their presentations. The finished presentations can be put into a new google site, saved onto the shared drive or printed out as pdfs.	**Pages Doc** iPads 1 Demo opening the pages app on the iPads. Show how to open a new doc and how to add text, text boxes, and format them. Get the children to start creating a topic based document. 2 Show how to add pictures from camera, in and out of the app and from the camera roll. Get the children to carry on creating their docs. 3 Show the children how to use a template to create a doc. Get them to see if it would be suitable to use a template for their document if so demo cutting and pasting info from one to another. Carry on creating their doc. 4 show how to add shapes and annotate a diagram in their doc Show how to add a table. 5, 6 Carryon finishing their docs. The finished docs can be printed out, saved to the school drive or to a google drive.	**E Safety** CyberPass LGFL Think U Know PC's Laptops 1 Show the children how to access the LGFL cyber pass resource. Choose an area for the children to explore. Get them to com	**Microbit Coding** PC's Laptops 1 Show the children how to open the microbit website. Demo starting a new project and how to use the web page to create code. Get the children to explore the basic code blocks to create and view their programs. 2. Demo downloading their programs to the microbit. Get the children to practice downloading their programs and removing the microbits to show them working with just the battery pack. 3 Demo the shake input for the microbits. As a class work out the algorithm for a simulated 6 sided die using the microbit. Show the children how to create variables to use with the program. Set the children the challenge to program the microbit to simulate a 6 sided die. 4 If finished get the children to vary the number of sides to simulate different die 5 See if the children can adapt their code so that the microbit acts as a 6 sided die when button a is pressed and a 10 when button b is pressed. 6 Get the children to finish the different challenges The working microbits can be videoed and these saved on the shared drive or in a google drive. The code can be printed from the website or by screen shots.	**iMovie with Garage Band Soundtrack** iPads 1 Remind the children how to create a simple iMovie and how to create a simple sound track using garage band. Demo adding a garage band track to an iMovie. Get the children to explore adding different sound tracks to simple movies. 2 explain that they are going to create simple suspense scene for a movie. Brainstorm with the class what this might look like. after working out what you might need to do to create the movie. Brainstorm how you could add a suitable sound track. get the children to create the movie and start planning out on paper how the sound track might work. 3 Challenge the children to create their movies with soundtracks. 4,5,6 Finish movies extend by seeing if they can create different scenes happy, sad maybe an adventure scene all with suitable soundtracks. The movies can be combined into one saved on a new google site or saved in a google drive or on the school drive.	**Hopscotch** iPads 1. Remind the children how to open and create a project. Show them how to add an emoji arrow and code a character to move when the arrow is tapped. Explain that this is an if then conditional. Write the algorithm when touched, change y by etc. Get the children to code a character to move with 4 arrows. 2. Demo the when bump or when touch blocks. Brainstorm how you could create a game from these blocks and the moving characters. 3 Show how to create and display a score in hopscotch. Get the children to write an algorithm for their game. Make sure they add as much detail as possible 4,5,6 Get the children to create their games. The final programs are saved in the hopscotch account. They can be published and shared using a link. Alternatively screen shots of the code can be taken stored and printed.