



Computing Subject Map - Y4

Autumn 1					
Project title: Invasion					
Lesson	Objective	Skill	Knowledge	Links to prior learning	Big Idea links
1	Online Safety Understand how we can protect ourselves from online identity theft. Understand that information put online leaves a digital footprint.	I know that security symbols such as the padlock protect my identity online. I know what the term 'phishing' means. I can explain what a digital footprint is.	Children will begin to understand terms such as 'phishing', 'digital footprint' and 'scams'. They should think carefully about identity theft.	Reliable sources Search algorithms	Growth
2	Identify the risks and benefits of installing software, including apps.	I can identify possible risks of installing free, and paid for, software. I know that malware is software that is specifically designed to disrupt, damage, or gain access to a computer.	The children should understand what a computer virus is and how they be avoided.	Reliable sources Search algorithms	Growth
3	Understand that copying the work of others and presenting it as their own is called 'plagiarism'.	I can determine whether activities I undertake online, infringe another's copyright. I know the difference between researching and using information and copying it.	The children should begin to think carefully of how to cite sources' they have used. Why are there copyright laws?	Reliable sources Search algorithms	Growth
4	Identify the positive and negative influences of technology on health and the environment.	I can take more informed ownership of the way I use my free time. I can give reasons for limiting screen time.	Children should be starting to think about the importance of balancing both screen time and other parts of their lives.	Reliable sources Search algorithms	Growth



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5	Typing Skills Improve our typing skills.	I can use 2Type to improve my typing skills.	The children should have the opportunity to use the 2Type games in order to improve their typing skills.	Keyboard skills Posture	Growth
6	Improve our typing skills.	I can use 2Type to improve my typing skills.	The children should have the opportunity to use the 2Type games in order to improve their typing skills.	Keyboard skills Posture	Growth



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Autumn 2					
Project title: Invasion					
Lesson	Objective	Skill	Knowledge	Links to prior learning	Big Idea links
1	Making Music Identify and discuss the main elements of music.	I can use appropriate musical language to discuss a piece of music. I can identify sounds in a piece of music.	The children should be able to discuss musical terms used to help them to understand music.	Add simple sound effects Creating simple music using 2Sequence Sequence music	Growth Investigation
2	Understand and experiment with rhythm and tempo.	I can identify and recall a simple rhythm. I can explain what tempo is and how changing it can affect the music. I can create my own piece of music using Busy Beats .	The children should start to think about how the rhythm and tempo can change the feel of a piece of music. Create their own simple piece of music using Busy Beats. Save work	Add simple sound effects Creating simple music using 2Sequence Sequence music	Growth Investigation
3	Create a melodic phrase.	I can show an understanding of melody. I can create a simple melodic pattern using 2Sequence or Busy Beats. I can use a variety of notes, experimenting with pitch.	The children should experiment with melody and pitch to create a simple melodic phrase using 2Sequence or Busy Beats. Save work	Add simple sound effects Creating simple music using 2Sequence Sequence music	Growth Investigation
4	Compose a piece of electronic music.	I can explore and understand how music is created. I can create a piece of 'House' music on Busy Beats.	The children should be able to create a piece of 'House' music using the tools available on Busy Beats. Save work	Add simple sound effects Creating simple music using 2Sequence Sequence music	Growth Investigation



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5	Understand that music can be edited until it sounds how we would like it to.	I can open my saved work. I can edit my 'House' music in order to improve it.	The children should edit their saved work in order to improve and extend it.	Add simple sound effects Creating simple music using 2Sequence Sequence music	Growth Investigation
6	Use the skills learnt previously to create a piece of music of our choice.	I can decide what genre of music I enjoy. I can create a piece of music of my choice using 2Sequence or Busy Beats.	The children should be allowed to think carefully about the genre of music they are trying to create. They can use either 2Sequence or Busy Beats.	Add simple sound effects Creating simple music using 2Sequence Sequence music	Growth Investigation



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Spring Term 1					
Project title: Misty Mountain, Winding River					
Lesson	Objective	Skill	Knowledge	Links to prior learning	Big Idea links
1	Coding Review coding vocabulary and knowledge. Create a simple computer program.	I can explore different objects in 2Code. I can use a background and objects to create a scene. I can plan an algorithm for my scene and use 2Code to program it.	The children should recap on previous coding knowledge and vocabulary. They can then create a simple program using 2Code . Gibbon Section	Timers Repeat Debug Save & open work Events	Growth Investigation
2	Begin to understand selection in computer programming. Understand how an 'IF' statement works.	I can create a program that includes an 'IF' statement.	The children should have the chance to explore 2Code to investigate what happens when they use an 'IF' statement.	Timers Repeat Debug Save & open work Events	Growth Investigation
3	Understand how to use co-ordinates in computer programming.	I can make use of the X and Y properties of objects in my coding. I can create a program using an 'IF' statement.	The children should use previous knowledge to help them to continue to move through the screens on the Gibbon section of 2Code	Timers Repeat Debug Save & open work Events	Growth Investigation
4	Understand the Repeat command. Understand how an IF/ELSE statement works.	I can read code that includes repeat until and IF/ELSE and explain how it works. I can create a program using IF/ELSE statements.	The children should use previous knowledge to help them to continue to move through the screens on the Gibbon section of 2Code	Timers Repeat Debug Save & open work Events	Growth Investigation



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5	Understand what a variable is in programming.	I can explain what a variable is in programming. I can create and use a variety of variables when programming.	The children should use previous knowledge to help them to continue to move through the screens on the Gibbon section of 2Code	Timers Repeat Debug Save & open work Events	Growth Investigation
6	Review concepts and vocabulary used in coding. Create a playable game.	I can begin to read code and explain how it works. I can create a playable game using knowledge learnt in this unit.	The children should use previous knowledge to help them to continue to move through the screens on the Gibbon section of 2Code	Timers Repeat Debug Save & open work Events	Growth Investigation
SAFER INTERNET DAY LESSON – USE SAFER INTERNET DAY WEBSITE FOR RESOURCES					



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Spring Term 2						
Project title: Misty Mountain						
Lesson	Objective	Skill	Knowledge	Links to prior learning	Big Idea links	
1	Effective Searching Locate information on the search results page.	I can structure search queries to locate specific information.	The children should start to think carefully about the questions asked of a search engine.	Online Safety Plagiarism Spoof/ Fake websites	Growth Investigation	
2	Search effectively to find out information.	I can use a search engine to answer a series of questions. I can write search questions for a friend to find the answer to by using search.	The children should start to think carefully about the questions asked of a search engine.	Online Safety Plagiarism Spoof/ Fake websites	Growth Investigation	
3	Assess whether an information source is true and reliable	I can analyse the contents of a web page for clues about the credibility of the information.	The children should start to think carefully about the questions asked of a search engine.	Online Safety Plagiarism Spoof/ Fake websites	Growth Investigation	
4	PowerPoint Create a presentation linked to our project using effective searching.	I can decide which area of the project my presentation will be about. I can use effective searching to find information.	The children should start to create a PowerPoint linked to their project. Save work	The children should start to think carefully about the questions asked of a search engine.	Online Safety Plagiarism Spoof/ Fake websites	Growth Investigation
5	Continue to use effective searching to find information about our chosen topics linked to our project.	I can use effective searching. I can use PowerPoint tools to add effects to my work.	The children should continue to create a PowerPoint linked to their project. Save work	The children should start to think carefully about the questions asked of a search engine.	Online Safety Plagiarism Spoof/ Fake websites	Growth Investigation
6	Understand that using effective searching techniques can help us to create an interesting piece of work.	I can understand how effective searching can help me.	The children should use knowledge learnt in previous lessons to complete their presentations. Save work	The children should start to think carefully about the	Online Safety Plagiarism Spoof/ Fake websites	Growth Investigation



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		I can use previous knowledge of PowerPoint tools to create an interesting presentation.		questions asked of a search engine.		
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Summer 1					
Project title: Ancient Civilisations					
Lesson	Objective	Skill	Knowledge	Links to prior learning	Big Idea links
1	Online Safety Recap Staying safe on social media platforms	I know what is meant by social media platforms. I can discuss how I can stay safe on social media platforms.	The children should be informed about social media platforms and the advantages and disadvantages of them.	Online Safety	Growth
2	Writing for Different Audiences. Explore how font size and style can affect the impact of a text.	I can look at and discuss a variety of written material where the font size and type are tailored to the Purpose of the text. I can use text formatting.	The children should use the 2Do set by the teacher to create a newspaper report. Save work	Keyboard skills Typing fluency Presentations	Growth
3	Use a simulated scenario to produce a news report.	I can role play the job of a journalist in a newsroom. I can interpret the incoming communications and use them to build up a story.	The children can use a simulated scenario – After the Storm – to produce a news report. Save work	Keyboard skills Typing fluency Presentations	Growth
4	Use a simulated scenario to produce a news report.	I can write my newspaper report.	The children can use a simulated scenario – After the Storm – to produce a news report. Save work	Keyboard skills Typing fluency Presentations	Growth



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5	Use a simulated scenario to write a community campaign.	I can use 2Connect to mind-map ideas for a community campaign.	The children can use a simulated scenario – We Want a Playground – to write for a community campaign. Save work.	Keyboard skills Typing fluency Presentations	Growth
6	Use a simulated scenario to write a community campaign.	I can use my ideas to write a persuasive letter or poster for a community campaign.	The children can use a simulated scenario – We Want a Playground – to write a persuasive letter or poster as part of the campaign.	Keyboard skills Typing fluency Presentations	Growth



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Summer 2					
Project title: Ancient Civilisations.					
Lesson	Objective	Skill	Knowledge	Links to prior learning	Big Idea links
1	Logo Understand the structure of the language of 2Logo. Input simple instructions in 2Logo.	I know what the common instructions are in 2Logo and how to type them. I can follow simple instructions to create shapes on 2Logo.	The children should be able to explore 2Logo and create simple shapes by typing instructions.	Mouse and Keyboard skills. Forward planning Logical decisions Debugging skills	Growth Investigation
2	Use 2Logo to create letter shapes.	I can create 2Logo instructions to draw patterns/letters of increasing complexity. I can understand the PU and PD commands.	The children should be able to explore 2Logo and create letters by typing instructions.	Mouse and Keyboard skills. Forward planning Logical decisions Debugging skills	Growth Investigation
3	Use the repeat command in 2Logo to create shapes.	I can follow 2Logo code to predict the outcome. I can create shapes using the repeat command.	The children should be able to explore 2Logo and create shapes by using the repeat command.	Mouse and Keyboard skills. Forward planning Logical decisions Debugging skills	Growth Investigation
4	Use and build procedures in 2Logo	I can use the procedures feature. I can create 'flowers' or 'crystals' using 2Logo	The children should be able to explore 2Logo and create flowers or crystals using the procedures feature.	Mouse and Keyboard skills. Forward planning Logical decisions Debugging skills	Growth Investigation
5	Use and build procedures in 2Logo	I can use the procedures feature. I can create shapes of my choice. I can use knowledge gained in previous lessons.	The children should be able to create their own shapes or words, using knowledge of previous lessons.	Mouse and Keyboard skills. Forward planning Logical decisions Debugging skills	Growth Investigation
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