

Computing 2 Year Rolling Programme

	Ruby Class	Topaz Class	Emerald Class	Sapphire Class	Amethyst Class
Cycle A 2020-21	Year 2 content	Year 2 content	Year 3 content	Year 5 content	Year 5/6 content
Cycle B 2021-22	Year 1 content	Year 3 content	Year 4 content	Year 4 content	Year 6 content

Diamond Class will follow Early Years Foundation Stage content and skills – differentiation through curriculum plans and needs/development stage of children.

Points to note:

- ★ By the end of each Key Stage, it will be ensured that all pupils will have covered a broad spectrum of computing skills.
- ★ We will have a whole school Online Safety focus each half term.
- ★ In the event of a pupil being in the same class for two years, careful consideration will need to ensure repetition of content does not occur.
- ★ Assessment will be in the form of half term assessments.
- ★ All Digital Literacy information is taken from the Education from a Connected World Document
- ★ Information has been taken from Mr P ICT and Switched on computing.
- ★ National Curriculum links are the expected end of Key Stage outcomes. These are to be covered gradually in each year group by covering different skills that are appropriate for that year group and stage of development.

Computing - Two Year Rolling Programme Year A

2020/2021 2022/2023 2024/2025	Autumn		Spring		Summer	
	<u>Dig it</u> <small>By the end of this unit all children should be able to...</small>		<u>Bright Sparks</u> <small>By the end of this unit all children should be able to...</small>		<u>What a wonderful World</u> <small>By the end of this unit all children should be able to...</small>	
Diamond Class Outcomes	<p><u>Information Technology : Word Processing/Typing</u></p> <ul style="list-style-type: none"> • Can play on a touch screen game and use computers/keyboards/mouse in role play • Can type letters with increasing confidence using a keyboard and tablet. • Can dictate short, clear sentences into a digital device 	<p><u>Information Technology: Data Handling</u></p> <ul style="list-style-type: none"> • I can identify a chart. • I can sort physical objects, take a picture and discuss what I have done. • I can present simple data on a digital device. 	<p><u>Information Technology: Photography and Digital Art</u></p> <ul style="list-style-type: none"> • I can take a photograph • I can take a photograph and use it in an app • I can use a painting app and explore the paint and brush tools 	<p><u>Computer science- Computational Thinking</u></p> <ul style="list-style-type: none"> • I can follow simple oral algorithms • I can spot simple patterns • I can sequence simple familiar tasks 	<p><u>Computer science- Coding & Programming</u></p> <ul style="list-style-type: none"> • I can use a mouse, touch screen or appropriate access device to target and select options on screen • I can input a simple sequence of commands to control a digital device with support (Bee Bot) 	<p><u>Information Technology Presentation, web design and ebook creation</u></p> <ul style="list-style-type: none"> • I can record my voice over a picture. • I can create a simple digital collage. • I can move and resize images with my fingers or mouse.
Curriculum Links	There are no specific technology curriculum links for Early Years, however, we would like to ensure that children have a great start to their computing education and endeavour to provide many opportunities for children to have some understanding of computing. This is particularly important with the ever changing modern world of technology.					
Online Safety Focus	Digital Literacy Focus: Self-image and Identity	Digital Literacy Focus: Online Relationships	Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)	Digital Literacy Focus: Managing Online Information	Digital Literacy Focus: Health, Wellbeing and Lifestyle	Digital Literacy Focus: Privacy and Security Copyright and Ownership

Ruby Class Outcomes	<u>Information Technology: Photography and Digital Art</u> <ul style="list-style-type: none"> I can edit a photo with simple tools I can use a paint/drawing app to create a digital image I can begin to cut out an image to layer on another image. 	<u>Computer science- Coding & Programming</u> <ul style="list-style-type: none"> I can create a simple program e.g. sequence of instructions for a Bee Bot I can use sequence in programs I can locate and fix bugs in my program 	<u>Information Technology : Word Processing/Typing</u> <ul style="list-style-type: none"> Can confidently type words quickly and correctly on a digital device. Can use the space bar to make space and delete to delete letters/words Can make a new line using enter/return Can dictate into a digital device more accurately and with punctuation. 	<u>Information Technology: Data Handling</u> <ul style="list-style-type: none"> I can sort images or text into two or more categories on a digital device. I can collect data on a topic. I can create a tally chart and pictogram. I can record myself explaining what I have done and what it shows me. 	<u>Information Technology Presentation, web design and ebook creation</u> <ul style="list-style-type: none"> I can add labels to an image I can order images to create a simple storyboard. I can create a simple spider diagram. I can sequence a series of pictures to explain my understanding of a topic. 	<u>Computer Science: Computational Thinking,</u> <ul style="list-style-type: none"> I understand what algorithms are I can write simple algorithms I understand the sequence of algorithms is important I can debug simple algorithms I understand that algorithms are implemented as programs on digital devices
Curriculum Links	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - create and debug simple programs - use logical reasoning to predict the behaviour of simple programs	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - create and debug simple programs - use logical reasoning to predict the behaviour of simple programs
Online Safety Focus	Digital Literacy Focus: Self-image and Identity	Digital Literacy Focus: Online Relationships	Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)	Digital Literacy Focus: Managing Online Information	Digital Literacy Focus: Health, Wellbeing and Lifestyle	Digital Literacy Focus: Privacy and Security Copyright and Ownership
Curriculum Links	- recognise common uses of information technology beyond school - use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies					

<p>Topaz Class Outcomes</p>	<p><u>Information Technology : Word Processing/Typing</u></p> <ul style="list-style-type: none"> • Can use index fingers on keyboard home keys (f/j), use left fingers for a/s/ d/f/g, and use right fingers for h/j/k/l • Can edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. • Can use cut, copy and paste to quickly duplicate and organise text. 	<p><u>Information Technology: Data Handling</u></p> <ul style="list-style-type: none"> • I can create my own sorting diagram and complete a data handling activity with it using images and text. • I can start to input simple data into a spreadsheet. • I can create a feelings chart exploring a story or character’s feelings. 	<p><u>Information Technology: Photography and Digital Art</u></p> <ul style="list-style-type: none"> • I can confidently take and manipulate photos • I can create a digital image using a range of tools, pens, brushes and effects • I can create transparent images 	<p><u>Computer Science Coding and Programming</u></p> <ul style="list-style-type: none"> • I can design and create programs • I can write programs that accomplish specific goals • I can use repetition in programs I can work with various forms of input 	<p><u>Computer Science: Computational Thinking,</u></p> <ul style="list-style-type: none"> • I can create algorithms for use when programming • I can decompose tasks (such as animations) into separate steps to create an algorithm • I understand abstraction is focusing on important information • I can identify patterns in an algorithm I can use repetition in algorithms <p><u>Computer Networks</u></p> <ul style="list-style-type: none"> • I understand that computers in a school are connected together in a network • I understand why computers are networked • I understand the difference between the Internet and the World Wide Web (WWW) 	<p><u>Information Technology - Presentation, web design and ebook creation</u></p> <ul style="list-style-type: none"> • I can create an interactive comic with sounds, formatted text and video. • I can annotate an image with videos • I can create a simple web page. • I can create a simple digital timeline/mindmap
<p>Curriculum Links</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - create and debug simple programs - use logical reasoning to predict the behaviour of simple programs</p>	<p>- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - create and debug simple programs - use logical reasoning to predict the behaviour of simple programs</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>
<p>Online Safety Focus</p>	<p>Digital Literacy Focus: Self-image and Identity</p>	<p>Digital Literacy Focus: Online Relationships</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p>	<p>Digital Literacy Focus: Managing Online Information</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p>
<p>Curriculum Links</p>	<p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>					

<p>Emerald Class Outcomes</p>	<p><u>Information Technology: Data Handling</u></p> <ul style="list-style-type: none"> I can create my own online multiple choice questionnaire. <ul style="list-style-type: none"> I can input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. I understand how data is collected. 	<p><u>Computer Science Coding and Programming</u></p> <ul style="list-style-type: none"> I can use simple selection in programs I can work with various forms of output I can use logical reasoning to systematically detect and correct errors in programs I can work with various forms of output 	<p><u>Information Technology Word Processing/Typing</u></p> <ul style="list-style-type: none"> Can combine digital images from different sources, objects, and text to make a final piece of a a variety of tasks: posters, documents, eBooks, scripts, leaflets. Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text <ul style="list-style-type: none"> Use font sizes appropriately for audience and purpose.\Use spell check and thesaurus including through Siri and other AI technology 	<p><u>Computer Science: Computational Thinking,</u></p> <ul style="list-style-type: none"> I can use abstraction to focus on what’s important in my design I can write increasingly more precise algorithms for use when programming. I can use simple selection in algorithms I can use logical reasoning to detect and correct errors in programs <p><u>Computer Networks</u></p> <ul style="list-style-type: none"> I understand that servers on the Internet are located across the planet I understand how email is sent across the Internet <ul style="list-style-type: none"> I understand how the Internet enables us to collaborate 	<p><u>Information Technology Presentation, web design and eBook creation</u></p> <ul style="list-style-type: none"> I can create an interactive quiz eBook introducing hyperlinks. I can create an eBook with text, images and sound. I can create a presentation demonstrating my understanding with a range of media. <ul style="list-style-type: none"> I can create a digital timeline/mindmap and include different media - sound and video 	<p><u>Information Technology: Photography and Digital Art</u></p> <ul style="list-style-type: none"> I can enhance digital images and photographs using crop, brightness, contrast & resize I can manipulate shapes to create digital art. <ul style="list-style-type: none"> I can draw a series of images and export as an animated GIF
<p>Curriculum Links</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>
<p>Online Safety Focus</p>	<p>Digital Literacy Focus: Self-image and Identity</p>	<p>Digital Literacy Focus: Online Relationships</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p>	<p>Digital Literacy Focus: Managing Online Information</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p>
<p>Curriculum Links</p>	<ul style="list-style-type: none"> understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 					

<p>Sapphire Class Outcomes</p>	<p><u>Information Technology : Word Processing/Typing</u></p> <ul style="list-style-type: none"> • Can combine digital images from different sources, objects, and text to make a final piece of a a variety of tasks: posters, documents, eBooks, scripts, leaflets. • Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text <ul style="list-style-type: none"> • Use font sizes appropriately for audience and purpose.\Use spell check and thesaurus including through Siri and other AI technology 	<p><u>Information Technology : Photography and Digital Arts</u></p> <ul style="list-style-type: none"> • I can enhance digital images and photographs using crop, brightness, contrast & resize • I can manipulate shapes to create digital art. <ul style="list-style-type: none"> • I can draw a series of images and export as an animated GIF 	<p><u>Information Technology: Data Handling</u></p> <ul style="list-style-type: none"> • I can create my own online multiple choice questionnaire. <ul style="list-style-type: none"> • I can input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. • I understand how data is collected. 	<p><u>Computer Science: Computational Thinking,</u></p> <ul style="list-style-type: none"> • I can use abstraction to focus on what’s important in my design • I can write increasingly more precise algorithms for use when programming. • I can use simple selection in algorithms • I can use logical reasoning to detect and correct errors in programs <p><u>Computer Networks</u></p> <ul style="list-style-type: none"> • I understand that servers on the Internet are located across the planet • I understand how email is sent across the Internet <ul style="list-style-type: none"> • I understand how the Internet enables us to collaborate 	<p><u>Computer Science Coding and Programming</u></p> <ul style="list-style-type: none"> • I can use simple selection in programs • I can work with various forms of output • I can use logical reasoning to systematically detect and correct errors in programs • I can work with various forms of output 	<p><u>Information Technology Presentation, web design and eBook creation</u></p> <ul style="list-style-type: none"> • I can create an interactive quiz eBook introducing hyperlinks. • I can create an eBook with text, images and sound. • I can create a presentation demonstrating my understanding with a range of media. <ul style="list-style-type: none"> • I can create a digital timeline/mindmap and include different media - sound and video
<p>Curriculum Links</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>
<p>Online Safety Focus</p>	<p>Digital Literacy Focus: Self-image and Identity</p>	<p>Digital Literacy Focus: Online Relationships</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p>	<p>Digital Literacy Focus: Managing Online Information</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p>
<p>Curriculum Links</p>	<p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>					

<p>Amethyst Class Outcomes</p>	<p>Information Technology: Data Handling</p> <ul style="list-style-type: none"> I can write spreadsheet formula to solve more challenging maths problems. I can create and publish my own online quiz with a range of media (images and video) 	<p>Information Technology : Word Processing/Typing</p> <ul style="list-style-type: none"> Can start to apply other useful effects to my documents such as hyperlinks. Can import sounds to accompany and enhance the text in my document. Can organise and reorganise text on screen to suit a purpose Can confidently choose the best application to demonstrate my learning. Can format text to suit a purpose. I can publish my documents online regularly and discuss the audience and purpose of my content. 	<p>Computer Science: Computational Thinking, & Computer Networks</p> <ul style="list-style-type: none"> I can recognise, and make use, of patterns across programming projects I can write precise algorithms for use when programming I can identify variables needed and their use in selection and repetition I can decompose code into sections for effective debugging I can critically evaluate my work and suggest improvements <p>Computer Networks</p> <ul style="list-style-type: none"> I understand what HTML is and recognize HTML tags I know a range of HTML tags and can remix a web page I can create a webpage using HTML 	<p>Computer Science Coding and Programming</p> <ul style="list-style-type: none"> I can use a range of sequence, selection and repetition commands combined with variables as required to implement my design I can create procedures to hide complexity in programs I can identify and write generic code for use across multiple projects I can critically evaluate my work and suggest improvements I can identify and use basic HTML tags (See Computer Networks objectives) I understand what HTML is and recognize HTML tags I know a range of HTML tags and can remix a web page I can create a webpage using HTML 	<p>Information Technology : Photography and Digital Arts</p> <ul style="list-style-type: none"> I can edit a picture to remove items, add backgrounds, merge 2 photos I can evaluate and discuss images explaining effects and filters that have been used to enhance the media. Use a 3D drawing app to create a realistic representation of world objects 	<p>Information technology Presentation, web design and ebook creation</p> <ul style="list-style-type: none"> I can create a web site which includes a variety of media. I can design an app prototype that links multimedia pages together with hyperlinks. I can choose applications to communicate to a specific audience. I can evaluate my own content and consider ways to improvements.
<p>Curriculum Links</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>
<p>Online Safety Focus</p>	<p>Digital Literacy Focus: Self-image and Identity</p> <p>NC- use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Digital Literacy Focus: Online Relationships</p> <p>NC- use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p> <p>NC- use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Digital Literacy Focus: Managing Online Information</p> <p>NC - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p> <p>NC- use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p> <p>Nc - understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>
<p>Curriculum Links</p>	<p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p> <p>- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>					

Computing - Two Year Rolling Programme Year B

2021/2022 2023/2024 2025/2026	Autumn		Spring		Summer	
	<u>Travel Through Time</u> <small>By the end of this unit all children should be able to...</small>		<u>Infinity and Beyond</u> <small>By the end of this unit all children should be able to...</small>		<u>All the Worlds a stage</u> <small>By the end of this unit all children should be able to...</small>	
Diamond Class Outcomes	<u>Information Technology - Word Processing/Typing</u> <ul style="list-style-type: none"> • Can play on a touch screen game and use computers/keyboards/mouse in role play • Can type letters with increasing confidence using a keyboard and tablet. <ul style="list-style-type: none"> • Can dictate short, clear sentences into a digital device 	<u>Information Technology – Animation</u> <ul style="list-style-type: none"> • I can animate a simple image to speak in role • I can create a simple animation to tell a story including more than one character 	<u>Computer Science: Coding and Programming</u> <ul style="list-style-type: none"> • I can use a mouse, touch screen or appropriate access device to target and select options on screen • I can input a simple sequence of commands to control a digital device with support (Bee Bot) • I can create a simple program e.g. sequence of instructions for a Bee Bot 	<u>Information Technology - Data Handling</u> <ul style="list-style-type: none"> • Can identify a chart. • Can sort physical objects, take a picture and discuss what I have done. • Can present simple data on a digital device 	<u>Computer Science: Computational Thinking,</u> <ul style="list-style-type: none"> • I can follow simple oral algorithms • I can spot simple patterns • I can sequence simple familiar tasks • I understand what algorithms are • I can write simple algorithms 	<u>Information Technology - Video Creation</u> <ul style="list-style-type: none"> • I know the difference between a photography and video. • I can record a short film using the camera • I can record and play a film • I can watch films back
Curriculum Links	There are no specific technology curriculum links for Early Years, however, we would like to ensure that children have a great start to their computing education and endeavour to provide many opportunities for children to have some understanding of computing. This is particularly important with the ever changing modern world of technology.					
Online Safety Focus	Digital Literacy Focus: Self-image and Identity	Digital Literacy Focus: Online Relationships	Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)	Digital Literacy Focus: Managing Online Information	Digital Literacy Focus: Health, Wellbeing and Lifestyle	Digital Literacy Focus: Privacy and Security Copyright and Ownership

Ruby Class Outcomes	<p><u>Computer Science: Computational Thinking,</u></p> <ul style="list-style-type: none"> • I can write algorithms for everyday tasks • I can use logical reasoning to predict the outcome of algorithms • I understand decomposition is breaking objects/processes down • I can implement simple algorithms on digital devices (Bee Bots, Apps: Daisy the Dino) • I can debug algorithms 	<p><u>Information Technology - Word Processing/Typing</u></p> <ul style="list-style-type: none"> • Can use the space bar only once between words and use touch to navigate to words letter to edit • Can copy and paste images and text • Use caps locks for capital letters. • Can add images alongside text in a word processed document. • Can dictate longer passages into a digital device with accurate punctuation. <ul style="list-style-type: none"> • Can save work in appropriate area 	<p><u>Computer Science: Coding and Programming</u></p> <ul style="list-style-type: none"> • I understand programs execute by following precise and unambiguous instructions • I can create programs on a variety of digital devices • I can debug programs of increasing complexity • I can use logical reasoning to predict the outcome of simple programs 	<p><u>Information Technology - Data Handling</u></p> <ul style="list-style-type: none"> • Can sort digital objects into a range of charts such as Venn diagrams, carroll diagrams and bar charts using different apps and software. • I can orally record myself explaining what the data shows me. • I can create a branching database using questions 	<p><u>Information Technology – Animation</u></p> <ul style="list-style-type: none"> • I can create multiple animations of an image and edit these together. • I can create a simple stop motion animation. • I can explain how an animation/flip book works 	<p><u>Information Technology - Video Creation</u></p> <ul style="list-style-type: none"> • I can record a film using the camera app. • I can select images and record a voiceover. • I can highlight and zoom into images as I record.
Curriculum Links	<p>- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <ul style="list-style-type: none"> - create and debug simple programs - use logical reasoning to predict the behaviour of simple programs 	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <ul style="list-style-type: none"> - create and debug simple programs - use logical reasoning to predict the behaviour of simple programs 	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>
Online Safety Focus	<p>Digital Literacy Focus: Self-image and Identity</p>	<p>Digital Literacy Focus: Online Relationships</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p>	<p>Digital Literacy Focus: Managing Online Information</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p>
Curriculum Links	<p>- recognise common uses of information technology beyond school</p> <p>- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies</p>					

<p>Topaz Class Outcomes</p>	<p>Information Technology - Word Processing/Typing</p> <ul style="list-style-type: none"> • Can use the space bar only once between words and use touch to navigate to words letter to edit • Can copy and paste images and text • Use caps locks for capital letters. • Can add images alongside text in a word processed document. • Can dictate longer passages into a digital device with accurate punctuation. • Can save work in appropriate area 	<p>Information Technology - Data Handling</p> <ul style="list-style-type: none"> • Can sort digital objects into a range of charts such as Venn diagrams, carroll diagrams and bar charts using different apps and software. • I can orally record myself explaining what the data shows me. • I can create a branching database using questions 	<p>Information Technology – Animation</p> <ul style="list-style-type: none"> • I can create multiple animations of an image and edit these together. • I can create a simple stop motion animation. 	<p>Information Technology - Video Creation</p> <ul style="list-style-type: none"> • I can record a film using the camera app. • I can select images and record a voiceover. • I can highlight and zoom into images as I record. • I can use tools to add effects to a video • I can begin to use green screen techniques with support 	<p>Computer Science: Computational Thinking,</p> <ul style="list-style-type: none"> • I can write algorithms for everyday tasks • I can use logical reasoning to predict the outcome of algorithms • I understand decomposition is breaking objects/processes down • I can implement simple algorithms on digital devices (Bee Bots, Apps: Daisy the Dino) • I can debug algorithms <p>Computer Networks</p> <ul style="list-style-type: none"> • I understand that computers in a school are connected together in a network • I understand why computers are networked • I understand the difference between the Internet and the World Wide Web (WWW) 	<p>Computer Science: Coding and Programming</p> <ul style="list-style-type: none"> • I understand programs execute by following precise and unambiguous instructions • I can create programs on a variety of digital devices • I can debug programs of increasing complexity • I can use logical reasoning to predict the outcome of simple programs
<p>Curriculum Links</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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</p> <p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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</p> <p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>
<p>Online Safety Focus</p>	<p>Digital Literacy Focus: Self-image and Identity</p>	<p>Digital Literacy Focus: Online Relationships</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p>	<p>Digital Literacy Focus: Managing Online Information</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p>
<p>Curriculum Links</p>	<p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p> <p>- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>					

<p>Emerald Class Outcomes</p>	<p>Information Technology - Data Handling</p> <ul style="list-style-type: none"> • I can create my own sorting diagram and complete a data handling activity with it using images and text. • I can start to input simple data into a spreadsheet. • I can create a feelings chart exploring a story or character's feelings. 	<p>Information Technology - Word Processing/Typing</p> <ul style="list-style-type: none"> • Can use index fingers on keyboard home keys (f/j), use left fingers for a/s/ d/f/g, and use right fingers for h/j/k/l • Can edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. • Can use cut, copy and paste to quickly duplicate and organise text. 	<p>Computer Science: Computational Thinking,</p> <ul style="list-style-type: none"> • I can create algorithms for use when programming • I can decompose tasks (such as animations) into separate steps to create an algorithm <ul style="list-style-type: none"> • I understand abstraction is focusing on important information • I can identify patterns in an algorithm I can use repetition in algorithms <p>Computer Networks</p> <ul style="list-style-type: none"> • I understand that computers in a school are connected together in a network <ul style="list-style-type: none"> • I understand why computers are networked • I understand the difference between the Internet and the World Wide Web (WWW) 	<p>Computer Science: Coding and Programming</p> <ul style="list-style-type: none"> • I can design and create programs • I can write programs that accomplish specific goals <ul style="list-style-type: none"> • I can use repetition in programs I can work with various forms of input 	<p>Information Technology – Animation</p> <ul style="list-style-type: none"> • I can create animations of faces to speak in role with more life-like realistic outcomes. • I can improve stop motion animation clips with techniques like onion skinning. • I can use animation tools in presenting software to create simple animations. 	<p>Information Technology - Video Creation</p> <ul style="list-style-type: none"> • I can sequence clips of mixed media in a timeline and record a voiceover • I can trim and cut film clips and add titles and transitions • I can independently create a green screen clip. • I can create my own movie trailer.
<p>Curriculum Links</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>
<p>Online Safety Focus</p>	<p>Digital Literacy Focus: Self-image and Identity</p>	<p>Digital Literacy Focus: Online Relationships</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p>	<p>Digital Literacy Focus: Managing Online Information</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p>
<p>Curriculum Links</p>	<p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>					

<p>Sapphire Class Outcomes</p>	<p>Information Technology - Word Processing/Typing</p> <ul style="list-style-type: none"> • Can start to apply other useful effects to my documents such as hyperlinks. <ul style="list-style-type: none"> • Can import sounds to accompany and enhance the text in my document. • Can organise and reorganise text on screen to suit a purpose 	<p>Information Technology - Video Creation</p> <ul style="list-style-type: none"> • I can add music and sound effects to my films • I can add animated titles and transitions • I can add simple subtitles to a video clip • I can evaluate and improve the best video tools to best explain my understanding. <ul style="list-style-type: none"> • I can further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool. 	<p>Information Technology - Data Handling</p> <ul style="list-style-type: none"> • I can create and publish my own online questionnaire and analyse the results. • I can use simple formulae to solve calculations including =sum and other statistical functions <ul style="list-style-type: none"> • I can edit and format difference cells in a spreadsheet. 	<p>Information Technology – Animation</p> <ul style="list-style-type: none"> • I can record animations of different characters and edit them together to create an interview. • I can add green screen effects to a stop motion animation. <ul style="list-style-type: none"> • I can create flip book animation using digital drawings and export as a Gif or video 	<p>Computer Science: Computational Thinking,</p> <ul style="list-style-type: none"> • I can solve problems by decomposing them into smaller parts • I can use selection in algorithms • I can recognise the need for conditions in repetition within algorithms • I can use logical reasoning to explain how a variety of algorithms work • I can use logical reasoning to detect and correct errors in algorithms • I can evaluate my work and identify errors <p>Computer Networks</p> <ul style="list-style-type: none"> • I understand how we view web pages on the Internet • I use search technologies effectively • I understand that web spiders index the web for search engines • I appreciate how pages are ranked in a search engine 	<p>Computer Science: Coding and Programming</p> <ul style="list-style-type: none"> • I can create programs by decomposing them into smaller parts • I can use selection in programs • I can use conditions in repetition commands • I can work with variables • I can create programs that control or simulate physical systems • I can evaluate my work and identify errors
<p>Curriculum Links</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>- use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>
<p>Online Safety Focus</p>	<p>Digital Literacy Focus: Self-image and Identity</p>	<p>Digital Literacy Focus: Online Relationships</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p>	<p>Digital Literacy Focus: Managing Online Information</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p>
<p>Curriculum Links</p>	<p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p> <p>- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>					

<p>Amethyst Class Outcomes</p>	<p>Information Technology - Data Handling</p> <ul style="list-style-type: none"> I can create and publish my own online questionnaire and analyse the results. I can use simple formulae to solve calculations including =sum and other statistical functions <ul style="list-style-type: none"> I can edit and format difference cells in a spreadsheet. I can write spreadsheet formula to solve more challenging maths problems. I can create and publish my own online quiz with a range of media (images and video) 	<p>Information Technology - Word Processing/Typing</p> <ul style="list-style-type: none"> Can start to apply other useful effects to my documents such as hyperlinks. <ul style="list-style-type: none"> Can import sounds to accompany and enhance the text in my document. Can organise and reorganise text on screen to suit a purpose <ul style="list-style-type: none"> Can confidently choose the best application to demonstrate my learning. Can format text to suit a purpose. I can publish my documents online regularly and discuss the audience and purpose of my content. 	<p>Computer Science: Computational Thinking,</p> <ul style="list-style-type: none"> I can recognise, and make use, of patterns across programming projects I can write precise algorithms for use when programming I can identify variables needed and their use in selection and repetition I can decompose code into sections for effective debugging I can critically evaluate my work and suggest improvements <p>Computer Networks</p> <ul style="list-style-type: none"> I understand what HTML is and recognize HTML tags I know a range of HTML tags and can remix a web page I can create a webpage using HTML 	<p>Computer Science: Coding and Programming</p> <ul style="list-style-type: none"> I can use a range of sequence, selection and repetition commands combined with variables as required to implement my design I can create procedures to hide complexity in programs I can identify and write generic code for use across multiple projects I can critically evaluate my work and suggest improvements I can identify and use basic HTML tags (See Computer Networks objectives) I understand what HTML is and recognize HTML tags I know a range of HTML tags and can remix a web page I can create a webpage using HTML 	<p>Information Technology - Video Creation</p> <ul style="list-style-type: none"> I can evaluate and improve the best video tools to best explain my understanding. I can use the green screen masking tool with more than one character. I can use picture in picture tools in iMovie. I can add animated subtitles to my film to further enhance my creation. I can create videos using a range of media - green screen, animations, film and image. 	<p>Information Technology – Animation</p> <ul style="list-style-type: none"> I can record animations of different characters and edit them together to create an interview. I can add green screen effects to a stop motion animation. I can create flip book animation using digital drawings and export as a Gif or video I can mix animations and videos recordings of myself to create video interviews. <ul style="list-style-type: none"> I can plan, script and create a 3D animation to explain a concept or tell a story. I can choose and create different types of animations to best explain my learning.
<p>Curriculum Links</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>
<p>Online Safety Focus</p>	<p>Digital Literacy Focus: Self-image and Identity</p> <p>NC- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Digital Literacy Focus: Online Relationships</p> <p>NC- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Digital Literacy Focus: Online Reputation and Online Bullying (Safer Internet Day Feb?)</p> <p>NC- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Digital Literacy Focus: Managing Online Information</p> <p>NC - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	<p>Digital Literacy Focus: Health, Wellbeing and Lifestyle</p> <p>NC- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Digital Literacy Focus: Privacy and Security Copyright and Ownership</p> <p>NC - understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p>
<p>Curriculum Links</p>	<p>- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p> <p>- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>					

