
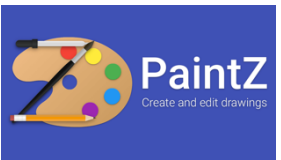







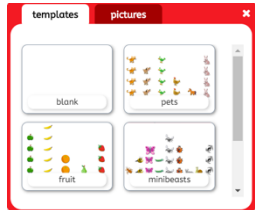










Sir William Burrough Curriculum Map: Computing

Computing at Sir William Burrough					
Year A – Adventurers - Y1/2					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>computing systems and networks technology around us</p> <ul style="list-style-type: none"> identify technology identify a computer and its main parts use a mouse in different ways use a keyboard to type on a computer use a keyboard to edit text create rules for using technology 	<p>creating media digital planning</p> <ul style="list-style-type: none"> describe what different freehand tools do use the shape tool and the line tools make careful choices when painting a digital picture explain why I chose the tools I used use a computer on my own to paint a picture compare painting a picture on computer and on paper 	<p>programming a moving a robot</p> <ul style="list-style-type: none"> explain what a given command will do act out a given word combine forwards and backwards commands to make a sequence combine four direction commands to make sequences plan a simple program find more than one solution to a problem 	<p>data and information grouping data</p> <ul style="list-style-type: none"> label objects identify that object can be counted describe objects in different ways count objects with the same properties compare groups of objects answer questions about groups of objects 	<p>programming b programming animations</p> <ul style="list-style-type: none"> choose a command for a given purpose show that a series of commands can be joined together identify the effect of changing a value explain that each sprite has its own instructions design the parts of a project use my algorithm to create a program 	<p>creating media digital writing</p> <ul style="list-style-type: none"> use a computer to write add and remove text on a computer identify that the look of text can be changed on a computer make careful choices when changing text explain why I use the tools that I chose compare typing on a computer to writing on paper







Sir William Burrough Curriculum Map: Computing

Year B - Adventurers - Y1/2					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>computing systems and networks IT around us</p> <ul style="list-style-type: none"> recognise the uses and features of information technology identify the uses of information technology in the school identify information technology beyond school explain how information technology helps us explain how to use information technology safely recognise that choices are made when using information technology 	<p>creating media digital photography</p> <ul style="list-style-type: none"> use a digital device to take a photograph make choices when taking a photograph describe what makes a good photograph decide how photographs can be improved use tools to change an image recognise that photos can be changed 	<p>programming a robot algorithms</p> <ul style="list-style-type: none"> describe a series of instructions as a sequence explain what happens when we change the order of instructions use logical reasoning to predict the outcome of a program explain that programming projects can have code and artwork design an algorithm create and debug a program that I have written 	<p>data and information pictograms</p> <ul style="list-style-type: none"> recognise that we can count and compare objects using tally charts recognise that objects can be represented as pictures create a pictogram select objects by attribute and make comparisons recognise that people can be described by attributes explain that we can present information using a computer 	<p>programming b programming quizzes</p> <ul style="list-style-type: none"> explain that a sequence of commands has a start explain that a sequence of commands has an outcome create a program using a given design change a given design create a program using my own design decide how my project can be improved 	<p>creating media making music</p> <ul style="list-style-type: none"> say how music can make us feel identify that there are patterns in music experiment with sound using a computer use a computer to create a musical pattern create music for a purpose review and refine our computer work


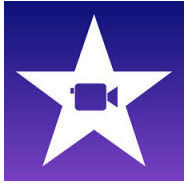
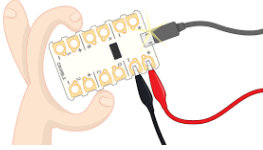



Sir William Burrough Curriculum Map: Computing

Year A - Pioneers - Y3/4					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>computer systems and networks connecting computers</p> <ul style="list-style-type: none"> explain how digital devices function identify input and output devices recognise how digital devices can change the way that we work explain how a computer network can be used to share information explore how digital devices can be connected recognise the physical components of a network 	<p>creating media stop-frame animation</p> <ul style="list-style-type: none"> explain that animation is a sequence of drawings or photographs relate animated movement with a sequence of images plan an animation identify the need to work consistently and carefully review and improve an animation evaluate the impact of adding other media to an animation 	<p>programming a sequencing sounds</p> <ul style="list-style-type: none"> explore a new programming environment identify that commands have an outcome explain that a program has a start recognise that a sequence of commands can have an order change the appearance of my project create a project from a task description 	<p>data and information branching databases</p> <ul style="list-style-type: none"> create questions with yes/no answers identify the attributes needed to collect data about an object create a branching database explain why it is helpful for a database to be well structured plan the structure of a branching database independently create an identification tool 	<p>creating media desktop publishing</p> <ul style="list-style-type: none"> recognise how text and images convey information recognise that text and layout can be edited choose an appropriate page setting add content to a desktop publishing publication consider how different layouts can suit different purposes consider the benefits of desktop publishing 	<p>programming b events and actions in progress</p> <ul style="list-style-type: none"> explain how a sprite moves in an existing project create a program to move a sprite in four directions adapt a program to a new context develop a program to a new context develop my program by adding features identify and fix bugs in a program design and create a maze-based challenge






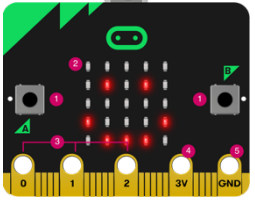
Sir William Burrough Curriculum Map: Computing

Year B – Pioneers – Y3/4					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>computer systems and networks the internet</p> <ul style="list-style-type: none"> describe how networks physically connect to other networks recognise how networked devices make up the internet outline how websites can be shared via the World Wide Web (WWW) describe how content can be added and accessed on the WWW recognise how the content of the WWW is created by people evaluate the consequences of unreliable content 	<p>creating media audio production</p> <ul style="list-style-type: none"> identify that sound can be recorded explain that audio recordings can be edited recognise the different parts of creating a podcast project apply audio editing skills independently combine audio to enhance my podcast project evaluate the effective use of audio 	<p>programming a repetition in shapes</p> <ul style="list-style-type: none"> identify that accuracy in programming is important create a program in a text-based language explain what 'repeat' means modify a count-controlled loop to produce a given outcome decompose a task into small steps create a program that uses count-controlled loops to produce a given outcome 	<p>data and information data logging</p> <ul style="list-style-type: none"> explain that data gathered over time can be used to answer questions use a digital device to collect data automatically explain that a data logger collects 'data points' from sensors over time recognise how a computer can help us analyse data identify the data needed to answer questions use data from sensors to answer questions 	<p>creating media photo editing</p> <ul style="list-style-type: none"> explain that the composition of digital images can be changed explain that colours can be changed in digital images explain how cloning can be used in photo editing explain that images can be combined combine images for a purpose evaluate how changes can improve an image 	<p>programming b repetition in games</p> <ul style="list-style-type: none"> develop the use of count-controlled loops in a different programming environment explain that in programming there are infinite loops and count-controlled loops develop a design that includes two or more loops which run at the same time modify an infinite loop in a given program design a project that includes repetition create a project that includes repetition

Sir William Burrough Curriculum Map: Computing

Year A - Trailblazers - Y5/6					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
				 Google Drawings	
<p>computer systems and networks</p> <p>systems and searching</p> <ul style="list-style-type: none"> explain that computers can be connected together to form systems to recognise the role of computer systems in our lives identify how to use a search engine describe how search engines select results explain how search results are ranked recognise why the order of results is important and to whom 	<p>creating media</p> <p>video production</p> <ul style="list-style-type: none"> explain what makes a video effective use digital device to record video capture video using a range of techniques create a storyboard identify that video can be improved consider the impact of the choices made when making and sharing a video 	<p>programming a</p> <p>selection in physical computing</p> <ul style="list-style-type: none"> control a simple circuit connected to a computer write a program that includes count-controlled loops explain that a loop can stop when a condition is met explain that a loop can be used to repeatedly check whether a condition has been met design a physical project that includes selection create a program that controls a physical computing project 	<p>data and information</p> <p>flat-file databases</p> <ul style="list-style-type: none"> use a form to record information compare paper and computer-based databases outline how you can answer questions by grouping and then sorting data explain that tools can be used to select specific data explain that computer programs can be used to compare data visually use a real-world database to answer questions 	<p>creating media</p> <p>introduction to vector graphics</p> <ul style="list-style-type: none"> identify that drawing tools can be used to produce different outcomes create a vector drawing by combining shapes use tools to achieve a desired effect recognise that vector drawings consist of layers group objects to make them easier to work with apply what I have learned about vector drawings 	<p>programming b</p> <p>selection in quizzes</p> <ul style="list-style-type: none"> explain how selection is used in computer programs relate that a conditional statement connects a condition to an outcome explain how selection directs the flow of a program design a program that uses selection create a program that uses selection create a program that uses selection evaluate my program

Sir William Burrough Curriculum Map: Computing

Year B - Trailblazers - Y5/6					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>computer systems and networks</p> <p>communication and collaboration</p> <ul style="list-style-type: none"> explain the importance of internet addresses recognise how data is transferred across the internet explain how sharing information online can help people to work together evaluate different ways of working together online recognise how we communicate using technology evaluate different methods of online communication 	<p>creating media</p> <p>web page creation</p> <ul style="list-style-type: none"> review an existing website and consider its structure plan the features of a web page consider the ownership and use of images (copyright) recognise the need to preview pages outline the need for a navigation path recognise the implications of linking to content owned by other people 	<p>programming a</p> <p>variables in games</p> <ul style="list-style-type: none"> define a variable as something that is changeable explain why a variable is used in a program choose how to improve a game by using variables design a project that builds on a given example use my design to create a project evaluate my project 	<p>data and information</p> <p>introduction to spreadsheets</p> <ul style="list-style-type: none"> create a data set in a spreadsheet build a data set in a spreadsheet explain that formulas can be used to produce calculated data apply formulas to data create a spreadsheet to plan an event choose suitable ways to present data 	<p>creating media</p> <p>3D modelling</p> <ul style="list-style-type: none"> recognise that you can work in three dimensions on a computer identify that digital 3D objects can be modified recognise that objects can be combined in a 3D model create a 3D model for a given purpose plan my own 3D model create my own digital 3D model 	<p>programming b</p> <p>sensing</p> <ul style="list-style-type: none"> create a program to run on a controllable device explain that selection can control the flow of a program update a variable with a user input use a conditional statement to compare a variable to a value design a project that uses inputs and outputs on a controllable device develop a program to use inputs and outputs on a controllable device