



Computing

Progression in Skills at Fawkham CEP School



Programming

EYFS	KS1	LKS2	UKS2			
<ul style="list-style-type: none"> -explore and interact with the environment using a range of equipment -recognise simple icons, buttons and shortcuts -use appropriate icons, button and shortcuts to complete an action -explore the functions of a simple programming tool (e.g. beebots) -begin to plan and test instructions with adult support -understand that goals can be achieved by following a sequence of steps. -follow symbol sequence algorithms (PE Cards, jump, step etc) 	<ul style="list-style-type: none"> -enact a given word -predict the outcome of a command device -list which commands can be used on a given device -match a command to an outcome -run a command on a floor bot -choose a command for a given purpose -choose a series of words that can be enacted as a program -choose a series of commands that can be run as a program -build a sequence of commands in steps -combine commands in a program -run a program on a device 	<ul style="list-style-type: none"> - choose a series of words that can be enacted as a sequence - choose a series of instructions that can be run as a program - create a program - trace a sequence to make a prediction - test a prediction by running the sequence - run a program on a device - create and debug a program that I have written -explain what happens when we change the order of instructions -evaluate the success of an algorithm 	<ul style="list-style-type: none"> -build a sequence of commands -combine commands in a program -order commands in a program -create a sequence of commands to produce a given outcome 	<ul style="list-style-type: none"> -list an everyday task as a set of instructions including repetition -use an indefinite loop to produce a given outcome -use a count-controlled loop to produce a given outcome -plan a program that includes appropriate loops to produce a given outcome -recognise tools that enable more than one process to be run at the same time (concurrency) -create two or more sequences that run at the same time -make accurate predictions about the outcome of a program they have written -debug errors in increasingly complex programs to accomplish specific goal -understand, identify and justify when to use 'infinite' or 'count-controlled' loops 	<ul style="list-style-type: none"> -create a condition-controlled loop -use a condition in an 'if...then...' statement to start an action -use selection to switch the program flow in one of two ways -use a condition in an 'if...then...else...' statement to produce given outcomes -choose a condition to use in a program 	<ul style="list-style-type: none"> -identify a variable in an existing program -experiment with the value of an existing variable -choose a name that identifies the role of a variable to make it easier for humans to understand it -decide where in a program to set a variable -update a variable with a user input -use an event in a program to update a variable -use a variable in a conditional statement to control the flow of a program -use the same variable in more than one location in a program -



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Creating Content

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<p>-use available applications and software to create simple, original content</p>	<ul style="list-style-type: none"> - create a picture using freehand tools - use shape and line tools when precision is needed - use a range of paint colours -use the fill tool to colour an enclosed area - use the undo button to correct a mistake - combine a range of tools to create a piece of artwork - decide when it's appropriate to use each tool - consider impact of choices made - use letter, number, and Space keys to enter text into a computer -use punctuation and special characters -select text -use the Backspace key to remove text -position the text cursor in a chosen location -use Undo -use digital technology to store and retrieve content 	<ul style="list-style-type: none"> -capture a digital image -take photographs in both landscape and portrait format -view photographs on a digital device -decide which photographs to keep -hold the camera still to take a clear photograph -use zoom to change the composition of a photograph -consider lighting before taking a photograph -use filters to edit the appearance of a photograph -improve a photograph by retaking it -experiment with musical patterns on a computer -experiment with different sounds on a computer -use a computer to create a musical pattern -use a computer to compose a rhythm and a melody on a given theme -use a computer to play the same music in different ways (e.g. tempo) -evaluate a musical composition created on a computer -improve a musical composition created on a computer -explain and begin to justify why tools were chosen and used 	<ul style="list-style-type: none"> -show that page orientation can be changed -add text to a placeholder -organise text and image placeholders in a page layout -add and remove images to and from placeholders -edit text in a placeholder -move resize and rotate images -choose fonts and apply effects to text -review a document -set up the work area with an awareness of what will be captured -plan an animation using a storyboard -capture an image -use the onion skinning tool to review subject position -move a subject between captures -review a captured sequence of frames as an animation -remove frames to improve animations -add media to enhance an animation -review a completed project 	<ul style="list-style-type: none"> -record sound using a computer -play recorded audio -import audio into a project -delete a section of audio -change the volume of tracks in a project -recognise that digital images can be manipulated -recognise that digital images can be changed for different purposes -choose the most appropriate tool for a particular purpose -consider the impact of changes made on the quality of the image 	<ul style="list-style-type: none"> -use different camera angles -use pan, tilt and zoom -identify features of a video recording device or application -combine filming techniques for a given purpose -determine what scenes will convey your idea -choose to reshoot a scene or improve later through editing -decide what changes I will make when editing -use split, trim and crop to edit a video -add an object to a vector drawing -select one object or choices made multiple objects -delete objects -move objects between the layers of a drawing -group and ungroup selected objects -duplicate objects using copy and paste -modify objects -combine options to achieve a desired effect -create a vector drawing for a given purpose 	<ul style="list-style-type: none"> -review an existing website (navigation bars, header) -create a new blank web page -add text to a web page -set the style of text on a web page -change the appearance of text -embed media in a web page -add web pages to a website -preview a web page (different screen sizes) -insert hyperlinks between pages -insert hyperlinks to another site -position 3D shapes relative to one another -use digital tools to modify 3D objects -combine objects to create a 3D digital artefact -use digital tools to accurately size 3D objects -construct a 3D model which reflects



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Data and Information

EYFS	KS1	LKS2		UKS2		
<ul style="list-style-type: none"> -collect simple information 	<ul style="list-style-type: none"> -identify some attributes of an object -describe the properties of an object -collect simple data -show that collected data can be counted -explain that objects can be grouped by similarities (attribute) - choose an attribute to group objects by -group objects to answer questions -describe a group of objects (based on commonality) 	<ul style="list-style-type: none"> -show I can enter data onto a computer -recognise that people, animals and objects can be described by attributes -use a computer to view data in different formats -use pictograms to answer single-attribute questions -use a computer to answer comparison questions (graphs, tables) -explain that information can be presented using a computer 	<ul style="list-style-type: none"> -create questions with yes/no answers -choose questions that will divide objects into evenly sized subgroups -repeatedly create subgroups of objects -identify an object using a branching database -retrieve information from different levels of the branching database -compare information shown in a pictogram with a branching database -explain that data can be used to answer questions 	<ul style="list-style-type: none"> -use a digital device to collect data automatically -choose how often to automatically collect data samples -use a set of logged data to find information -use a computer program to sort data by one attribute -export information in different formats 	<ul style="list-style-type: none"> -choose different ways to view data -choose which attribute and value to search by to answer a given question (operands) -ask questions that need more than one attribute to answer -choose which attribute to sort data by to answer a given question -choose multiple criteria to search data to answer a given question (AND and OR) -select an appropriate graph to visually compare data -choose suitable ways to present information to other people 	<ul style="list-style-type: none"> -calculate data using a formula for each operation -use functions to create new data -use existing cells within a formula -choose suitable ways to present spreadsheet data -recognise data can be calculated using different operations -choose suitable ways to present data



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Computing Systems and Networks

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<ul style="list-style-type: none"> -help adults operate equipment around the school, independently operating simple equipment -recognise that a range of technology is used in places such as homes and schools. -select and use technology for particular purposes 	<ul style="list-style-type: none"> - choose a piece of technology to do a job - recognise that some technology can be used in different ways - identify the main parts of a computer - use a mouse in different ways - use a keyboard to type - use the keyboard to edit text - show how to use technology safely 	<ul style="list-style-type: none"> -describe some uses of computers -identify information technology in school -identify information technology beyond school -show how to use information technology safely -explain how information technology benefits us 	<ul style="list-style-type: none"> -identify input and output devices -explain that a computer system accepts an input and processes it to produce an output -explain how a computer network can be used to share information -explain the role of a switch, server and wireless access point in a server -identify network devices around me -explain how networks can be connected to other networks 	<ul style="list-style-type: none"> -describe how networks connect to other networks -outline how information can be shared via the World Wide Web -recognise that the World Wide Web is part of the internet -explain that the global interconnection of networks is the internet -recognise the need for security on the internet -describe how to access the World Wide Web -describe the types of content/media that can be added, created, and shared on the World Wide Web -explain how the content of the World Wide Web is created, owned, and shared by people -explain that the internet enables us to view the World Wide Web -explain that the World Wide Web comprises of websites and web pages -describe the current limitations of World Wide Web media -evaluate the reliability of content and the consequences of unreliable content -explain the benefits of the World Wide Web 	<ul style="list-style-type: none"> -describe the input and output of a search engine -demonstrate that different search terms produce different results -evaluate the results of search terms 	<ul style="list-style-type: none"> -outline methods of communicating and collaborating using the internet -choose methods of internet communication and collaboration for given purposes -evaluate different methods of online communication and collaboration -decide what you should and should not share online -continue to develop online searching skills to enhance online communication and collaboration