

Nursery and Reception - Knowledge, Skills and Understanding breakdown Computing

Computer Science	Information Technology	Digital Literacy
<ul style="list-style-type: none"> • I know that an algorithm is the steps to carry out a task (make my Beet Boot move) • I can put steps in a real life task in the correct order to form an algorithm • I can identify individual steps in a task • I can give single instructions to a computer • I can follow instructions to give a sequence (list) of instructions to a computer • I can fix a bug in a simple program • I know the purpose of the instruction that I give to a computer 	<ul style="list-style-type: none"> • I can follow instructions to create basic digital outcomes using a variety of software eg draw a picture, type in text, take a photo, record my voice 	<ul style="list-style-type: none"> • I can name common digital devices eg laptop tablet smartphone • I can identify tasks that are better done by a computer • I know I must tell an adult if anything on the internet makes me feel uncomfortable

Year 1 -Knowledge, Skills and Understanding breakdown Computing

Food Glorious Food , Our Senses Come and Visit my home Once upon a time, Who are we ? Lets Go

Computer Science	Computer Science	Computer Science
<ul style="list-style-type: none"> • I know that a computer program is a list instructions for a computer to follow • I know that computers work by following programs • I can identify individual steps in a task to have breakfast • I can edit a line in a simple programme to change what it does • I can recognise when a simple computer program runs correctly or when it has a bug • I can follow the simple steps in a program • I know that a computer program is a list instructions for a computer to follow • I know that computers work by following programs • I can identify individual steps in a task to have breakfast • I can edit a line in a simple programme to change what it does • I can recognise when a simple computer program runs correctly or when it has a bug • I can follow the simple steps in a program 	<ul style="list-style-type: none"> • I can store work that I have created with a sensible name so that I can recognise it again • I can retrieve work that I have saved • I can use formatting features in my work eg text boxes and shapes • I can manipulate (edit) my work base on feedback from other people • I can store work that I have created with a sensible name so that I can recognise it again • I can retrieve work that I have saved • I can use formatting features in my work eg text boxes and shapes • I can manipulate (edit) my work base on feedback from other people 	<ul style="list-style-type: none"> • I can Identify tasks that are better done by a computer • I can explain why it is better to use a computer for some tasks • I know I must tell an adult if anything on the internet makes me feel uncomfortable • I know that I must not give personal information to other people on the internet without the permission of a adult • I can explore a website • I can Identify tasks that are better done by a computer • I can explain why it is better to use a computer for some tasks • I know I must tell an adult if anything on the internet makes me feel uncomfortable • I know that I must not give personal information to other people on the internet without the permission of a adult • I can explore a website

Year 2 - Knowledge, Skills and Understanding breakdown Computing

The Victoria Line, Animals v Humans, A Lost Civilization, Independence Day

Computer Science	Information Technology	Digital Literacy
<ul style="list-style-type: none"> • I can explain the purpose of a simple computer program • I know that a computer program is a list of instructions for a computer to follow • I know that a computer program is an algorithm written as precise instructions that have only one meaning • I know that computers can only do exactly what they are programmed to do • I know that to debug a program is stop fix a problem in a computer program • I can write a simple program using sequence of instructions • I can use a range of programming constructs in a program • I can predict how a simple computer program will behave and explain the reason for my prediction 	<ul style="list-style-type: none"> • I can manipulate (edit) basic digital content eg format text, copy an image • I can make decisions about my work and can manipulate (edit) it to be the way I want it • I can organise my work so that I can retrieve it create folders 	<ul style="list-style-type: none"> • I know some ways in which information technology can be used outside school eg layout a newspaper, advertisements TV and film • I can list some items of information that are personal • I know that I must be polite when I use technology to communicate • I know that there are things on the internet that are not good for me to see • I know that there are ways to report on the internet • I can use digital services to communicate with other people eg send and email, chat in a moderated game talk using an online game

Year 3 - Knowledge, Skills and Understanding breakdown Computing

Where's my Mummy, If Stones could Talk , Bean There. Grown That, The Big Cat, Sunshine and Showers

Computer Science	Information Technology	Digital Literacy
<ul style="list-style-type: none"> • I know that a program is written to carry out a specific task • I know that a program do not always work properly when they are first written and can need to be debugged • I can follow instructions to write a program • I can work out which section of a code is not working properly in a program that I have written • I know that repetition is when a sequence of instructions is performed more than once • I can use repetition in a program (eg repeat while) to make it repeat the same steps more than once • I can recognise when a simple algorithm will not work eg there is not enough information for me to follow the steps • I know that the internet can be used to communicate with other people 	<ul style="list-style-type: none"> • I know that there are different types of data, text, number, images, sound • I can use a variety of digital devices eg laptop tablet, camera • I can follow instructions to create a range of different digital outcomes eg animation graph, poster, PPT, blog 	<ul style="list-style-type: none"> • I know that I must behave appropriately on the internet as I would in real life eg I must be polite, I must not bully • I know that I must seek adult help if I am concerned about anything on the internet • I can use the internet to communicate with other people safely, respectfully and responsibly • I know how to respond to unpleasant or inappropriate contact online • I know that anyone can put anything on the internet • I know that websites are written for different purposes

Year 4 - Knowledge, Skills and Understanding breakdown Computing

Heroes, The Road to Nowhere Gifts From the Greeks If I ruled the World, Des Res Alfred the Great

Computer Science	Information Technology	Digital Literacy
<ul style="list-style-type: none"> • I can identify smaller tasks that need to be carried out to complete an identified bigger task • I can link tasks together so that they will solve a given problem • I know that output is something produced by a program • I can use selection in a program (eg if ...then... else) to make it behave in a different way depending on a test • I can follow the steps in a simple algorithm eg to create a secret code a=1, b=2 etc • I can find the section in the program code that contains the error • I know that work that I create can be saved on the internet 	<ul style="list-style-type: none"> • I know that different software is designed for different purposes • I know that some software runs on the digital device and some runs on the internet • I know that there are different types of data text, number, images, sound • I can follow instructions to create a range of different digital outcomes eg animation graph, poster, PPT, blog 	<ul style="list-style-type: none"> • I know that phishing and online scams try to trick people into giving away personal details • I can find relevant and useful Information on a given website • I know how a search engine works • I can search using multiple search criteria to make my web search more effective • I can give examples of acceptable and unacceptable behaviour on the internet • I can report my concerns about content and contact on the internet appropriately

Year 5 - Knowledge, Skills and Understanding breakdown Computing

Off With Their Heads, Many Islands Many People, Going Green, Floating around the World,
Edward V Arthur, The Whole Shebang

Computer Science	Information Technology	Digital Literacy
<ul style="list-style-type: none"> • I know that computer programs can control physical systems eg traffic lights, open gates and turn on heating • I can follow a plan to write a program to accomplish a specific goal • I can follow a plan to write a program to control a physical system • I know a variable is piece of data in a program that changes as the program is running • I know that a selection is when different instructions are performed depending on what is needed • I can write a sequence of instruction in a program • I can recognise the impact on the program of repetition/selection/a variable/ an input to change the outcome of a program • I can use a variable in a program to keep track of changing value (eg score) 	<ul style="list-style-type: none"> • I know that different software is designed for different purposes • I can follow instructions to create a range of different digital outcomes eg animation graph, poster, PPT, blog • I can choose a suitable piece of software or internet service for a task • I can present data that I have collected n the form of graphs and statements • I can use more than one digital device in combination to create an outcome eg make a fil about a school event using videos recorded on a tablet or camera and add a soundtrack 	<ul style="list-style-type: none"> • I know that things saved on the internet can be shared by other people • I know that I must think before I post anything on the internet • I know that everything that I do online leaves behind a record which is my digital footprint • I can set privacy setting on the online services that I use • I know I must think before I post something online • I know that phishing and online cams try to trick people into giving away personal details

Year 6 - Knowledge, Skills and Understanding breakdown Computing

The Victoria Line, Animals v Humans, A Lost Civilization, Independence Day

Computer Science	Information Technology	Digital Literacy
<ul style="list-style-type: none"> • I can follow instructions to write a program that controls a physical system eg program light sensor to turn on a light when it gets dark • I can write a plan for a program to solve a problem with which I am familiar • I can identify the rules of a computer simulation • I can link together sections of code given to me to create a program containing repetition/ selection/ a variable/ an input to change the outcome of the program • I can write a program that requests and uses an input (eg ask a name) • I can write a program that shows or produces an output (eg display the result of a calculation, light a light bulb) • I know that a computer network is when two or more computers are lined together and can communicate with each other to share applications, data and files • To name some services that are available on the internet eg world wide web, email video calls • I can talk about some of the pieces of hardware that can be used to create a computer network • I can give some facts about some services available on the internet eg blog services, websites, email, cloud 	<ul style="list-style-type: none"> • I can follow instructions to create a range of different digital outcomes eg animation, graph, PPT, poster, blog • I can collect data • I can choose a suitable piece of software or internet service for a task • I know that information is data that has been given a context and meaning • I can present data that I have collected in the form of graphs and statements • I can create a digital outcome that achieves a specific goal using more than one piece of software or internet service eg use sound editing software to create a radio interview using recorded sounds and sounds found on the internet and publish the outcome on the internet as a podcast • I can analyse data that I have collected 	<ul style="list-style-type: none"> • I know that things saved on the internet • I can find relevant and useful information on a given website • I know that a range of information can be shared through social media • I know that my online behaviour can affect others • I know that everything that I do online leaves behind a record which is my digital footprint • I know that someone can use my personal details to pretend to be me online • I know that my privacy settings can protect personal information in online games and social media • I know how to avoid online scams and phishing threats • I can evaluate digital content to decide whether it provides me with useful information • I know about the risks involved in online contact eg sexting, grooming, online bullying

based software		
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