



Computing Skills and knowledge

Expected by the End of Year 6

Generic Skills	Computer Science
<ul style="list-style-type: none"> • be able to choose and combine the use of appropriate ICT tools to complete a task • have experience of a range of ICT equipment and software • describe and discuss their work and explain how and why they have used ICT • use appropriate ICT vocabulary 	<p>Control and Programming</p> <ul style="list-style-type: none"> • use on-screen control software to plan, create and run a more complex set of instructions • use information from a sensor (input) to initiate parts of the control program • plan and create a control system to answer a task • know when it would be appropriate to use a control system • create more complex patterns using repeated simple procedures • explain and program each of the steps in my algorithm • evaluate the effectiveness and efficiency of an algorithm while testing the programming of that algorithm • use a variable and operators to stop a program • use different inputs (including sensors) to control a device or onscreen action and predict what will happen • use logical reasoning to detect and correct errors in a algorithms and programs <p>Data Logging</p> <ul style="list-style-type: none"> • know when it would be appropriate to use a sensing device e.g. in a science experiment • be able to use a range of sensors as appropriate
Digital Literacy	Information Technology
<p>Research</p> <ul style="list-style-type: none"> • use a more complex search engine to find information on the Internet • check the accuracy of information • be aware of privacy and other issues related to using the Internet <p>Data handling</p> <ul style="list-style-type: none"> • Use a more complex database to explore patterns and relationships in data e.g. In a mini beasts database - Is there a relationship between habitat and diet? • independently set up and use a data file to carry out an investigation • amend and delete data from records • use editing tools to alter the design of a graph • organise, refine and present information appropriate to the audience <p>Spreadsheets</p> <ul style="list-style-type: none"> • be able to set up a spreadsheet with appropriate headings • be able to use a simple formula e.g. SUM • use a spreadsheet to investigate e.g. cost of foods / Which is the best value drink? <p>E-Safety</p> <ul style="list-style-type: none"> • contribute to shared rules and use them to support myself and others • communicate kindly and respectfully, working with others to help all enjoy use of technology • know the way search results are selected and ranked and check the reliability of websites visited • consider terms and conditions and adjust privacy settings to maintain control of my personal information • know how to communicate safely and responsibly with people • protect my computer or device from harm on the internet • know how images in the media affect how we feel about ourselves • know how online friendships affect our feelings 	<p>Graphics and digital video</p> <ul style="list-style-type: none"> • use a wider range of tools within an art package as necessary • continue to manipulate images using an art package or other software • know when it is appropriate to use an art package and when another medium would be more suitable • continue to use a digital camera or digital video camera to take appropriate pictures or video for a specific purpose <p>Sound</p> <ul style="list-style-type: none"> • continue to use microphones/sound buttons as appropriate • continue to use the sound files in other applications • continue to use more sophisticate music software to plan, create, evaluate, edit and play their own compositions <p>Multimedia</p> <ul style="list-style-type: none"> • select and use a range of software and hardware tools to produce a presentation or digital film for a specific audience e.g. present an account of their residential trip to their peers • create hyperlinks for resources made or found. • modify the presentation to make it more suitable for a different audience e.g. parents <p>Word processing and email</p> <ul style="list-style-type: none"> • use and practise their word processing skills in a range of contexts • use email as a communication tool to collaborate with other pupils • know that computer viruses can be sent via email • be aware of email safety rules