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| LONG TERM FORECAST Key Stage 2 Computing 2017-2019 | | | | |
| **Aims**  The national curriculum for computing aims to ensure that all pupils:   * can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation * can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems * can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems * are responsible, competent, confident and creative users of information and communication technology. | | Pupils should be taught to:   * 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 * use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content * 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 * use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | | |
|  | **Autumn** | | **Spring** | **Summer** |
| **Year 3 Topic** | Get Blogging  We Love Games | | Young Coders | We are Publishers  Going for Gold |
| Y3 Assessment milestone | * Contribute to a blog moderated by teachers. * Specify conditions to trigger events. | | * Use IF THEN conditions to control events or objects. | * Use laptop and a Desk Top Publishing program to create an e-book combining appropriate text and images from a range of sources * Record data and choose an appropriate way to present information |
| **Year 4 Topic** | Heroes  Back to the Future | | Making Games | Interface Designer  We’ve Got the Power |
| Y4 Assessment milestone | * Use variables to store a value * Give examples of the risks posed by online communities | | * Create conditions for actions by waiting for a user input (such as a response to a question like what is your number?) | * Understand how online services work. * Understand that comments made online that are hurtful or offensive are the same as bullying. |
|  | **Autumn** | | **Spring** | **Summer** |
| **Year 5 Topic** | Cars | | News Room  Earth and Space | Social Networking\*  Interactive Art Exhibition |
| Y5 Assessment milestone | * Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions | | * Choose the most suitable applications and devices for the purposes of communication * Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner. | * Collaborate with others online on sites approved and moderated by teachers. * Understand and demonstrate knowledge that it is illegal to download copyrighted material without written permission. |
| **Year 6 Topic** | Heroes and Villains  Social Networks\* | | The Ministry of Crazy Coding  History Alive\* | Building Battle Bots |
| Y6 Assessment milestone | * Set IF conditions for movements. Specify types of rotation giving the number of degrees. * Understand the effect of online comments and show responsibility and sensitivity when online. | | * Use IF THEN ELSE conditions to control events or objects. * Use advanced features in order to create high quality, professional or efficient communications. | * Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner |