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|  |  | **Milestone 1 (Y1 & Y2)** | **Milestone 2 (Y3 & Y 4)** | **Milestone 3(Y5 & Y6)** |
| To code (using Scratch)  To code (using scratch) | Motion | • Control motion by specifying the number of steps to travel, direction and turn. | • Use specified screen coordinates to control movement. | • Set IF conditions for movements. Specify types of rotation giving the number of degrees. |
| Looks | • Add text strings, show and hide objects and change the features of an object. | • Set the appearance of objects and create sequences of changes. | • Change the position of objects between screen layers (send to back, bring to front). |
| Sound | • Select sounds and control when they are heard, their duration and volume. | • Create and edit sounds. Control when they are heard, their volume, duration and rests. | • Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation. |
| Draw | • Control when drawings appear and set the pen colour, size and shape. | • Control the shade of pens. | • Combine the use of pens with movement to create interesting effects. |
| Events | • Specify user inputs (such as clicks) to control events. | • Specify conditions to trigger events. | • Set events to control other events by ‘broadcasting’ information as a trigger. |
| Control | • Specify the nature of events (as a single event or a loop). | • Use IF THEN conditions to control events or objects. | • Use IF THEN ELSE conditions to control events or objects. |
| Sensing | • Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?). | • Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions). | • Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions. |
| Variables and lists | • From Year 3 onwards. | • Use variables to store a value.  • Use the functions define, set, change, show and hide to control the variables. | • Use lists to create a set of variables. |
| Operators  Operators | • From Year 3 onwards. | • Use the Reporter operators to perform calculations.   |  |  |  |  | | --- | --- | --- | --- | | () + () | () - () | () \* () | () / () | | • Use the Boolean operators to define conditions.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | () < () | () = () | () > () | ()and() | ()or() | Not() |  * Use the Reporter operators to perform calculations.  |  |  |  |  | | --- | --- | --- | --- | | () + () | () - () | () \* () | () / () | |
| To connect |  | • Participate in class social media accounts.  • Understand online risks and the age rules for sites. | • Contribute to blogs that are moderated by teachers.  • Give examples of the risks posed by online communications.  • Understand the term ‘copyright’.  • Understand that comments made online that are hurtful or offensive are the same as bullying.  • Understand how online services work. | • Collaborate with others online on sites approved and moderated by teachers.  • Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems.  • Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder.  • Understand the effect of online comments and show responsibility and sensitivity when online.  • Understand how simple networks are set up and used. |
| To communicate |  | • Use a range of applications and devices in order to communicate ideas, work and messages. | • Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally. | • Choose the most suitable applications and devices for the purposes of communication.  • Use many of the advanced features in order to create high quality, professional or efficient communications. |
| To collect |  | • Use simple databases to record information in areas across the curriculum. | • Devise and construct databases using applications designed for this purpose in areas across the curriculum. | • Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner. |
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