| **Reception** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
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| **Information Technology around us** | [**Information technology around us**](https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-technology-around-us) | [**Information technology around us**](https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-it-around-us) | [**Connecting computers**](https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-connecting-computers) | [**The internet**](https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-the-internet) | [**Sharing information**](https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-sharing-information) | [**Internet communication**](https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-communication) |
| Able to use the basic functions of the technology available in the classroom.  Can take a photo using an ipad. | Identify types of technology.  Give simple examples of how technology can help us. | Say some ways IT is used in school and in the wider community.  Begin to show how to use IT safely. | Know that digital devices are made of several components and the devices can be linked together.  Compare working with a computer to working without one. | Understand the importance of security and privacy on the internet.  Evaluate the reliability of content on the internet and the impact of unreliable content. | Know how search engines process information and rank search results (according to their own algorithms).  Evaluate the results of search engines - selecting the most relevant link for their purpose. | Know that technology offers opportunities for collaboration and communication.  Make decisions about what should and should not be shared online and give reasons for this choice. |
| [**Awesome Autumn**](https://drive.google.com/file/d/1Jra8DL_bbAVYRGZTzAbrL9tmOmjZz2fk/view?usp=share_link) | [**Digital painting**](https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-painting) | [**Digital photography**](https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-photography) | [**Stop Frame Animation**](https://teachcomputing.org/curriculum/key-stage-2/creating-media-animation) | [**Audio editing**](https://teachcomputing.org/curriculum/key-stage-2/creating-media-audio-editing) | [**Video editing**](https://teachcomputing.org/curriculum/key-stage-2/creating-media-video-editing) | [**Webpage creation**](https://teachcomputing.org/curriculum/key-stage-2/creating-media-web-page-creation) |
| Continue and create repeating patterns using natural materials.    Start to use the language of programming, planning a route through a maze, making a simple recipe. | Use freehand digital tools to create art.  Use fill and undo tools. | Make choices when composing a photograph.  Know that photos can be changed after capturing. | Curriculum end point | Know that sound, images and video can be altered after recording.  Edit all or part of audio and image files using appropriate software. | Know how to use video capture and editing software to record and edit videos.  Use simple filming techniques to capture good quality video.  Use tools to edit, combine, split or trim video to achieve the best results. | Review and evaluate web pages and consider ownership of content.  Create a new webpage including images, text links. |
| **Digital Painting** | [**Moving a robot**](https://teachcomputing.org/curriculum/key-stage-1/programming-a-moving-a-robot) | [**Pictograms**](https://teachcomputing.org/curriculum/key-stage-1/data-and-information-pictograms) | [**Sequencing Sounds**](https://curriculum.teachcomputing.org/rails/active_storage/blobs/redirect/eyJfcmFpbHMiOnsibWVzc2FnZSI6IkJBaEpJaWxqTnpWbU1ERXpZaTB3T1Roa0xUUmxZamd0WVdKaU5pMDBNRGMzTldFeE9EVTFNemdHT2daRlZBPT0iLCJleHAiOm51bGwsInB1ciI6ImJsb2JfaWQifX0=--3ca85ac19446eb42b009ece9389927f9882d5c8a/Unit%20overview%20%E2%80%93%20Sequencing%20sounds%20%E2%80%93%20Y3.docx?_ga=2.202547857.1865474953.1655978199-1766046484.1644572382) | [**Repetition in shapes**](https://teachcomputing.org/curriculum/key-stage-2/programming-a-repetition-in-shapes) | [**Flat-file databases**](https://teachcomputing.org/curriculum/key-stage-2/data-and-information-flat-file-databases) | [**Variables in games**](https://teachcomputing.org/curriculum/key-stage-2/programming-a-variables-in-games) |
| Can use basic drawing tools on a paint program to create a picture.  Can use the stamp tool. | Understand that a program is a set of instructions a computer/floor robot can run.  Combine a series of simple commands to achieve a given purpose. | Complete/ construct comparison questions and answer them using technology.  Compare traditional and digital methods of collecting/ representing this information. | Know that different sequences of commands can produce the same (or different) outputs  Explain that the sequence of commands impacts on the output | Know how to identify a loop and understand why counted or indefinite loops are used in a program.  Use counted and indefinite loops to repeat a sequence of commands in a program. | Understand that flat file databases are efficient digital ways of organising and storing information.  Represent data from flat file databases in different ways and use sorting and filtering to answer questions. | Know that variables can be used in programming and understand their purpose e.g. score  Use a variable in a conditional statement to control the flow of a program |
| **Springtime** | [**Grouping data**](https://teachcomputing.org/curriculum/key-stage-1/data-and-information-grouping-data) | [**Robot**](https://teachcomputing.org/curriculum/key-stage-1/programming-a-robot-algorithms)  [**algorithms**](https://teachcomputing.org/curriculum/key-stage-1/programming-a-robot-algorithms) | [**Branching Databases**](https://curriculum.teachcomputing.org/rails/active_storage/blobs/redirect/eyJfcmFpbHMiOnsibWVzc2FnZSI6IkJBaEpJaWxoWW1SbVptSXpOaTAwWm1KbExUUTRZVEl0T1RnNU9TMW1aalptTjJGall6azFaR1VHT2daRlZBPT0iLCJleHAiOm51bGwsInB1ciI6ImJsb2JfaWQifX0=--d148a26645dc97a07b52655de49c6975f06258fa/Unit%20overview%20-%20Branching%20databases%20-%20Y3.docx?_ga=2.138470451.1865474953.1655978199-1766046484.1644572382) | [**Data logging**](https://teachcomputing.org/curriculum/key-stage-2/data-and-information-data-logging) | [**Selection in physical computing**](https://teachcomputing.org/curriculum/key-stage-2/programming-a-selection-in-physical-computing) | **I**[**ntroduction to spreadsheets**](https://teachcomputing.org/curriculum/key-stage-2/data-and-information-spreadsheets) |
| Continue to use the language of programming  Can sequence simple events into order. | Group objects with a given attribute.  Collect simple data and know that it can be represented in different ways. | Create and debug simple programs  Use logical reasoning to predict the behaviour of simple programs. | Know that a well-structured branching database uses the fewest questions.  Create simple branching databases using effective Yes/No questions. | Know that data (collected by digital devices) can be used to answer questions.  Use a digital device to collect data and present their findings in different ways. | Know that a condition can only be true or false and that a condition controlled loop will stop once the condition is met.  Use conditional controlled loops to branch the flow in a program. | Understand that data can be presented in a spreadsheet which can automatically use formulas to calculate/generate more data.  Use simple formulas and functions to create more data for a given purpose. |
| **Springtime** | [**Digital Writing**](https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-writing) | [**Making music**](https://teachcomputing.org/curriculum/key-stage-1/creating-media-making-music) | [**Desktop publishing**](https://teachcomputing.org/curriculum/key-stage-2/creating-media-desktop-publishing) | [**Photo editing**](https://teachcomputing.org/curriculum/key-stage-2/creating-media-photo-editing) | [**Vector drawing**](https://teachcomputing.org/curriculum/key-stage-2/creating-media-vector-drawing) | [**3D modelling**](https://teachcomputing.org/curriculum/key-stage-2/creating-media-3d-modelling) |
| Begin to construct simple algorithms for guiding a character around a maze.  Debug algorithms (find and fix the mistake). | Use the keyboard to enter information into the device.  Use letters, numbers, space, backspace and punctuation. | Use a computer to compose a rhythm/melody.  Compare playing music on instruments to making music on a computer. | Know that different styles and layouts are suitable for different purposes and that tools can be used to make changes.  Manipulate fonts, colours, orientation and layout (etc) for a purpose. | Know that sound, images and video can be altered after recording.  Edit all or part of audio andimage files using appropriate software. | Know that a vector graphic is made up of several objects in separate layers and that these can be resized without loss of quality.  Combine 2D objects to construct a vector graphic which meets given criteria. | Know that 3D environments can be viewed from different perspectives and that digital tools can be used to manipulate objects within it.  Combine 3D objects to make a digital artefact. |
| **Boats Ahoy** | [**Programming Animations**](https://teachcomputing.org/curriculum/key-stage-1/programming-b-introduction-to-animation) | [**Programming quizzes**](https://teachcomputing.org/curriculum/key-stage-1/programming-b-an-introduction-to-quizzes) | [**Events and actions in programs**](https://teachcomputing.org/curriculum/key-stage-2/programming-b-events-and-actions) | [**Repetition in games**](https://teachcomputing.org/curriculum/key-stage-2/programming-b-repetition-in-games) | [**Selection in quizzes**](https://teachcomputing.org/curriculum/key-stage-2/programming-b-selection-in-quizzes) | [**Sensing**](https://teachcomputing.org/curriculum/key-stage-2/programming-b-sensing) |
| Further develop abstraction skills - Can say what makes a good boat.  Organise a task using decompositional skills (planning steps to build a boat) | Use a series of commands to produce an outcome.  Run a program. | Explain what happens when the order of instructions are changed.  Test a prediction. | Know that different sequences of commands can produce the same (or different) outputs  Explain that the sequence of commands impacts on the output | Identify a loop and understand why counted or indefinite loops are used in a program.  Use counted and indefinite loops to repeat a sequence of commands in a program. | Know that a condition can only be true or false and that a condition controlled loop will stop once the condition is met.  Use conditional controlled loops to branch the flow in a program. | Know that variables can be used in programming and understand their purpose e.g. score  Use a variable in a conditional statement to control the flow of a program |