Computing

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Preschool | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Technology in the real world | Recognise that a range of technology is used in places such as homes and schools.  Select and use technology for particular purposes. | Recognise common uses of information technology beyond school.  Use technology both within school and beyond. | Use different font sizes, colours and effects.  Select appropriate images to add to work.  Develop an awareness of appropriate language in an email. | Use different font sizes, colours and images to communicate meaning for a given audience.  Use presentation software.  Log on to an email or blog.  Use appropriate language in a simple email. | Use different font sizes, colours and images purposefully.  Choose recipient, forward and add attachments to an email. Save an email to draft and retrieve it before sending.  Open received emails and save attachments to appropriate place. | Know how to use digital tools responsibly to communicate  Use search technologies effectively and safely. | Use digital devices to combine software and present data and information.  Use search technologies and understand how results are ranked.  Evaluate validity of a range of digital sources. | Use a range of digital devices to combine different software and present data and information.  Collect, analyse and evaluate data.  Use technology to accomplish challenging goals. |
| Programming | Completes a simple program on a computer  Uses ICT software to interact with age appropriate software | Begin to understand what algorithms are  Begin to use some logic to predict what will happen next in a program | Know what algorithms are and how they are used.  Understand how algorithms impact programming. | Understand that programmes are a sequence of simple instructions.  Create and test a simple programme. | To plan simple sequences with algorithms.  Use logical reasoning to predict errors. | Design a simple programme with a specific focus using algorithms to write the sequence.  Use sequence selection and repetition in programmes.  Detect and correct errors in algorithms and programmes. | Design and write programmes that control simulations and physical systems.  Work with variables and various forms of input and output to test programmes. | Understand several key algorithms that reflect computational thinking for sorting and searching. |
| Purposeful application | Use technology for a purpose ie complete a game | Use technology beyond school  Begin to use technology to create simple programs | Recognise how ICT is used beyond school.  Use technology to create digital content. | Create and implement simple programmes on digital devices.  Use technology to create, organise, store, manipulate and retrieve digital content. | Create and implement programmes to accomplish given goals.  Use technology to present data and digital content. | Create and implement a range of programmes to accomplish given goals.  Use technology to collect and present data and digital content. | Create and implement a range of programmes and content to accomplish specific goals.  Use technology to collect, analyse, evaluate and present data and digital cont | Use a range of programmes, systems and content to accomplish challenging goals.  Use technology creatively to collect, analyse, evaluate and present data and digital content |
| Online Safety | Know that they should ask an adult before selecting a game / activity | Use technology respectfully and safely.  Know who to talk to if they are worried  Begin to know that they need to talk to adults when using the internet | Know what to do if they see something inappropriate online.  According to schools Online Safety policy and acceptable use policy. | Know what personal information is and why they need to keep it private.  Use technology safely and respectfully. | Recognise unacceptable behaviour online.  Identify a range of ways to deal with inappropriate content.  Continue to use technology safely and respectively. | Use technology safely, respectfully and responsibly.  Know what it means to be a responsible digital citizen. | Use technology securely.  Know how to protect your online identity. | Know why you need to use technology securely.  Know why it is important to protect your online identity.  Recognise correct content and conduct. |