**Computing Curriculum Intent – KS1**

Developed by:  **A.Phillips** Compiled: **January 2022**

**National Curriculum Aims for Computing:**

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.

**National Curriculum Subject Content for KS1:**

Pupils should be taught to:

* understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
* create and debug simple programs
* use logical reasoning to predict the behaviour of simple programs
* use technology purposefully to create, organise, store, manipulate and retrieve digital content
* recognise common uses of information technology beyond school
* use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

This has been simplified for coverage to the following:

1 – Coding. Including looking at algorithms, creating and debugging programmes and predicting the outcomes of certain actions.

2 – Using Technology Purposefully. Including Video and photo recording and editing. Exploring the recording of sound and Animation (5).

4 – Combined Information Technology. This includes the termly change between word processing, presentation software and spreadsheet software. Also included is the ability to turn on technology and to increase mouse control skills and start to use different interfaces (type/touch screen etc).

7 – E-safety and Digital Citizenship.

**Cycle A – Academic Year 2021-2022**

**Reception**

**Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. EY Development Matters from 2012 (now removed from the Revised Early Years Framework).**

**By the end of Reception, children at Stoneydelph should be able to:**

* Know how to switch on a computer (Using Technology purposefully)
* Know how to use a mouse, touch screen or stylus to select options on a screen.
* Know how to take a photograph, record film or sound and see or play these back.
* Know how to type letters using a keyboard (hardware or touch screen).
* Know how to input a simple sequence of commands (with support) into digital device. (Coding)
* Know who to speak to if someone makes me feel upset online. (E-Safety and Digital Citizenship)
* Know that the internet can be used to find out information.
* Know simple rules to keep them safe and healthy online.

**Year 1 / 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Splendid Skies  (Science Driver) | School Days  (History Driver) | Muck, Mess & Mixtures  (Art & Design Driver) | The Enchanted Woodland  (Science Driver) | Bright Lights, Big City  (Geography Driver) | Childhood  (History Driver) |
|  |  | E-safety and Digital Citizenship (Internet Safety Day).  Animation.  Use clay or playdoh models to create a simple stop motion animation. Taking a photo of each individual picture frame and running them together through software. Use of Webcams as hardware. | Coding.  Look at instructions and how these can link to algorithms as an introduction to computer coding.  Using Technology Purposefully.  Use cameras and hardware to take photos to enhance written instructions. Upload images to the computer and using cropping techniques to edit images.  Combined Information Technology.  Use the internet to look for ideas and create a digital image of a garden plan with labels. | Coding.  Use programmable floor robots to navigate to different targets.  Progressing to an introduction to Scratch and programming a sprite around a London map. (ICT Day perhaps)  Combined Information Technology.  Use mouse skills and control to create a digital drawing of London transport options.  Using Technology Purposefully.  Use photo cropping to remove a background and insert themselves on top of an image of a royal celebration. | Using Technology Purposefully.  Create a video which shows the comparisons of live over two time periods. Edit separate video footage together. Split screen exploration for high computing achievers.  Combined Information Technology.  Create a digital version of a family tree. Reflection on Spring Digital Literacy knowledge. Insert images digitally. |
|  |  | Zoetope  Webcams |  | Paint or Brackets | iMovie |

**Cycle B – Academic Year 2020-2021 & 2022-2023**

**Year 1 / 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Coastline & Beach Hut  (Geography & D/T Driver) | | The Scented Garden  (Science Driver) | Movers & Shakers  (History Driver) | Magnificent Monarchs  (History Driver) | Wriggle & Crawl  (Science Driver) |
|  | |  |  |  |  |
|  | |  |  |  |  |