

**ICT and E-Safety**

**WE AIM TO BE STARS**

S elf Motivated

*Having the desire to discover how to use more apps and actively use the ICT to learn*

T hinker

*Finding ways to share knowledge and remember how to keep safe on the internet*

A spirational

*Having the desire to achieve personal bests*

R esilient

*Learnng from mistakes, defeats and poor performances to come back stronger in the future*

S upportive

*Helping those others to improve their knowledge as well personal understanding*

**Our vision for ICT at Sandy Hill Academy is that there is:**

* High quality teaching and learning across the school, including E-Safety
* Children that have a good understanding of the benefits of ICT to help them learn
* Children are more aware of the apps available on the iPADs
* Children can use and understanding terminology linked with coding
* Children can identify many ways to keep them safe online

**1. An Introduction**

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

**2. 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.

Attainment targets:

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

**3. E-Safety**

E-Safety is the responsibility of all staff at Sandy Hill. Everyone understands the need and duty we have to safe-guard our children and educate them about how to keep safe online. We spend the first half of the term each year solely focusing on E-Safety and also take part in Internet safety Day and Anti-bullying week.

### 3. New Curriculum

### Key stage 1

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.

### Key stage 2

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.

**4. Sandy Hill Curriculum**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | R | 1 | 2 | 3 | 4 | 5 | 6 |
| Autumn 1 | **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.** | **use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact****use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content** |
| Lee and Kim’s Adventure -1st part- Book Creator | Internet Safety- Think U knowBook Creator | Internet Safety- Kids SmartPoster | Internet Safety – CBBC Book Creator | Internet Safety – Think U know- Drama using iMovie | Internet SafetyLee and Kim’s AdventurePuppet Pals | Internet Safety - Kids SmartBook Creator |
| Autumn 2 | **understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions** | **design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts**  |
| Instructing friends | Floor TurtlesBeebot | Floor TurtlesBeebot | EspressoKodeable | EspressoKodeable | EspressoKodeable | EspressoKodeable |
| Spring 1 | **create and debug simple programs** | **use sequence, selection, and repetition in programs; work with variables and various forms of input and output** |
| Espresso | Espresso | Espresso | Puppet PalsPlay Script animation | Comic LifeScripted kids book | Scripted information textKey Note | Lego MovieStory animation |
| Spring 2 | **use logical reasoning to predict the behaviour of simple programs** | **use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs** |
| Scratch Junior | Scratch Junior | Scratch Junior | ScratchMaths Game | ScratchSpelling Game | ScratchLiteracy Game | ScratchGrammar Game |
| Summer 1 | **use technology purposefully to create, organise, store, manipulate and retrieve digital content** | **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** |
|  |  | Saving work | Email a letter of complaint | Audio Boo- School website audience | BloggingeSchoolsTwitter | Podcasting- Garage Band |
| Summer 2 | **recognise common uses of information technology beyond school** | **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** |
|  | Why people use ICT- Jobs | Photography | PoppletLink to Science | Databases- NumbersLink to Maths Link to PE | Movie Trailers using iMovieFilm Reviews | Website DesignCollecting data for purpose-eschools |