**Computing Long Term Plan, Including NC links: 2022-2023**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Autumn 1 – 7 weeks | Autumn 2 – 7 weeks | Spring 1 – 5.3 weeks | Spring 2 – 6 weeks | Summer 1 – 6 weeks | Summer 2 – 7 weeks |
| EYFS | *Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, which focuses on the learning and development of children from birth to age five, there are many opportunities for young children to use technology to solve problems and produce creative outcomes.***EYFS 2021: Understanding the World:**Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children’s personal experiences increases their knowledge and sense of the world around them. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. |
| Rainbows Computing | Mini Mash (reading, writing, maths and topic games for 2-5 year olds)Software to cover mouse skills, drawing, music making and problem solving.Computing ideas and lesson plans related to each of the 17 ELGsHardware available for child-initiated learning: Cameras, Bee Bots (coding), everyday technical appliances (phones/kettle/toaster/microscope/torches)Additional focus on Online Safety from Education in a Connected World/ Safer Internet Day  |
|  |
| KS1 | **Computing National Curriculum KS1:****Computer Science:** -KS1.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions -KS1.2 create and debug simple programs -KS1.3 use logical reasoning to predict the behaviour of simple programs **Information Technology:**-KS1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content **Digital Literacy:**-KS1.5 recognise common uses of information technology beyond school -KS1.6 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. |
| Year 1Computing | **Unit 1.1: Online safety & Exploring Purple Mash****(4 weeks) KS1.6****Unit 1.2: Grouping & sorting****(2 weeks) KS1.4** | **Unit 1.3: Pictograms****(3 weeks) KS1.4****Unit 1.4: Lego builders****(3 weeks) KS1.1** | **Unit 1.5: Maze explorers****(3 weeks ) KS1.1/ KS1.2/ KS1.3****Unit 1.6: Animated story books****(5 weeks) KS1.4*****Safer Internet Day- 14.2.23*** | **Unit 1.6: Animated story books****(cont- 5 weeks) KS1.4****Unit 1.7: Coding****(6 weeks) KS1.1/ KS1.2/ KS1.3/ KS1.4** | **Unit 1.7: Coding****(cont- 6 weeks) KS1.1/ KS1.2/ KS1.3/ KS1.4****Unit 1.8: Spreadsheets** **(3 weeks) KS1.4** | **Unit 1.9: Technology outside School** **(2weeks) KS1.5****(additional focus on Online Safety from Education in a Connected World) KS1.6** |
| Year 2Computing | ***Unit 1.1: Online safety & Exploring Purple Mash******(4 weeks) KS1.6******Unit 1.9: Technology outside School (2weeks) KS1.5******(Recap as missed in Y1 21-22)*****Unit 2.6: Creating pictures** **(5 weeks) KS1.4** | **Unit 2.2: Online safety****(3 weeks) KS1.6****Unit 2.3: Spreadsheets- Crash course****(4 weeks) KS1.4*****(Complete Crash Course as 1.8 not fully completed in Y1 21-22)*** | **Unit 2.7: Making music****(3 weeks) KS1.4****Unit 2.5: Effective searching****(3 weeks) KS1.4/ KS1.5*****Safer Internet Day- 14.2.23*** | **Unit 2.4: Questioning** **(linked to WR Maths Statistics)****(5 weeks ) KS1.4** | **Unit 2.1: Coding-** **(and Introduction to algorithms with Bee Bots) (linked to WR maths Position & Direction)****(5 weeks) KS1.1/ KS1.2/ KS1.3** | **Unit 2.1: Coding-** **(cont- 5 weeks) KS1.1/ KS1.2/ KS1.3****Unit 2.8: presenting ideas** **(4 weeks) KS1.4****(additional focus on Online Safety from Education in a Connected World) KS1.6** |
| KS2 | **Computing National Curriculum KS2:****Computer Science:**-KS2.1Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts -KS2.2. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output -KS2.3 Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs -KS2.4 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 **Information Technology:**-KS2.5 Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content -KS2.6 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 **Digital Literacy:**-KS2.7 Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| Year 3Computing\*Additional unit- 3.7 Simulations (3 weeks) KS2.6 | **Unit 3.4: Touch Typing****(4 weeks ) KS2.6****Unit 3.2: Online safety****(3 weeks) KS2.7** | **Unit 3.3: Spreadsheets** **(3 weeks) KS2.6****3.9: Presenting with PowerPoint** **(5 weeks) KS2.6** | **Unit 3.5: Email (including Email safety)****(6 weeks) KS2.4/ KS2.6/ KS2.7*****Safer Internet Day- 14.2.23*** | **Unit 3.1: Coding-** **(6 weeks) KS2.1/ KS2.2/ KS2.3** | **Unit 3.1: Coding-** **(cont- 6 weeks) KS2.1/ KS2.2/ KS2.3****Unit 3.6: Branching databases** **(4 weeks) KS2.6** | **Unit 3.6: Branching databases** **(cont- 4 weeks) KS2.6****Unit 3.8: Graphing****(3 weeks) KS2.6** *(link to Maths)***(additional focus on Online Safety from Education in a Connected World) KS2.7** |
| Year 4Computing\*Optional unit- 4.9 Making Music (4 weeks) KS2.6 | **Unit 4.2: Online safety****(4 weeks) KS2.4 / KS2.7****Unit 4.4: Writing for different audiences****(5 weeks ) KS2.6***Additional keyboard skills* | **Unit 4.4: Writing for different audiences****(5 weeks cont ) KS2.6****Unit 4.6: Animation****(3 weeks) KS2.6** | **Unit 4.3: Spreadsheets-****(6 weeks) KS2.6*****Safer Internet Day- 14.2.23*** | **Unit 4.1: Coding****(6 weeks) KS2.1/ KS2.2/ KS2.3/ KS2.6** | **Unit 4.7: Effective search****(3 weeks) KS2.4/ KS2.5****Unit 4.8: Hardware investigators** **(2 weeks) KS2.4** | **Unit 4.5: Logo****(4 weeks) KS2.1/ KS2.2/ KS2.3****(additional focus on Online Safety from Education in a Connected World) KS2.7** |
| Year 5Computing\*Additional unit- 5.7: Concept maps(4 weeks) KS2.6 | **Unit 5.2: Online safety****(3 weeks) KS2.4/ KS2.7****Unit 5.6: 3D modelling****(4 weeks) KS2.6** | **Unit 5.3: Spreadsheets-** **(6 weeks) KS2.6** | **Unit 5.4: Databases****(4 weeks ) KS2.6*****Safer Internet Day- 14.2.23*** | **Unit 5.1: Coding-** **(6 weeks) KS2.1/ KS2.2/ KS2.3/ KS2.6** | **Unit 5.8: Word processing, with Word** **(8 weeks) KS2.6** | **Unit 5.5: Game creator****(5 weeks) KS2.6****(additional focus on Online Safety from Education in a Connected World) KS2.7** |
| Year 6Computing \*Optional unit- 6.8 Understanding Binary (4 weeks) KS2.3/KS2.4 | **Unit 6.2: Online safety****(2 weeks) KS2.4/KS2.5/ KS2.7****Unit 6.4: Blogging****(5 weeks ) KS2.4/ KS2.6/ KS2.7** | **Unit 6.1: Coding-** **(6 weeks) KS2.1/ KS2.2/ KS2.3/ KS2.6** | **Unit 6.6: Networks****(1 week) KS2.4****Unit 6.5: Text adventures****(5 weeks) KS2.1/ KS2.2/ KS2.3/ KS2.6*****Safer Internet Day- 14.2.23*** | **Unit 6.3: Spreadsheets- Crash course****(5 weeks) KS2.6 /** **Unit 6.9****Spreadsheets (with Excel)** **(8 weeks) KS2.6** | **(SATs half term)****Units can be altered if needed** | **Unit 6.7: Quizzing****(6 weeks) KS2.6****(additional focus on Online Safety from Education in a Connected World) KS2.7** |