

Computing Curriculum Overview 24-25

| National Curriculum Coverage – Key Stage 1 Computing Curriculum | 1.1 Technology around us | 1.2 Digital painting | 1.3 Moving a robot | 1.4 Grouping data | 1.5 Digital writing | 1.6 Programming animations | 2.1 Information technology around us | 2.2 Digital photography | 2.3 Robot algorithms | 2.4 Pictograms | 2.5 Making music | 2.6 Programming quizzes |
|---|--------------------------|----------------------|--------------------|-------------------|---------------------|----------------------------|--------------------------------------|-------------------------|----------------------|----------------|------------------|-------------------------|
| 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 | ✓ | | | | ✓ | ✓ | ✓ | | | ✓ | | |

| | Aut 1 | Aut 2 | Spr 1 | Spr 2 | Sum 1 | Sum 2 |
|---|--|---|--|--|--|---|
| | Where Did you come from Pebble? | What will you grow into egg? | What was your home like? | Who did you belong to? | What do you do with an idea? | How high do you go sky? |
| EYFS - Understanding the world Computational Thinking (Barefoot Computing) | Operate and use simple equipment and programs -Cd player -cameras -Ipad -Beebots -smartboard Creating, Tinkering Awesome Autumn | Coding using Beebots Collaboration Persevering Winter Warmers | Looking at the range of technology we have at school and at home (and studying their uses eg mixers, dishwashers, ovens, washing machines) Pattern Logical reasoning | Using ipads to take photos and record video, incl staying safe online Abstraction Algorithms | Staying safe online Choosing technology to use for a specific purpose at and out of school Decomposition Summer Fun | Choosing technology to use for a specific purpose, including retrieval of info. Typing using laptops and ipads Review of concepts |
| Year 1 Overview of curriculum areas: links to the Education for a Connected World framework nccce.io/efacw | Computing systems and networks (Tech all around us: 1.1) - Copyright and ownership - Health, well-being and lifestyle Technology around us Recognising technology in school and using it responsibly | Creating Media (Digital painting 1.2) Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally – compare to painting in Term 1 art skills. | Programming A (Moving a Robot: 1.3) Privacy & security E-safety: Real or Fake? Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes. | Data and information (Grouping data: 1.4) Copyright & ownership Grouping data (1.4) Exploring object labels, then using them to sort and group objects by properties. | Creating Media (Digital Writing: 1.5) Digital writing Using a computer to create and format text, before comparing to writing non-digitally | Programming B (Programming animations:1.6) Programming animations Designing and programming the movement of a character on screen to tell stories. Rocket or plane journey |

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| | Where Did you come from Pebble? | What will you grow into egg? | What was your home like? | Who did you belong to? | What do you do with an idea? | How high do you go sky? |
| Year 2 Overview of curriculum areas: links to the Education for a Connected World framework (ncce.io/efacw) | <p>Creating Media (Making music: 2.5) Copyright and ownership</p> <p>Making music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p> | <p>Computing systems and networks (IT around us: 2.1) - Health, well-being and lifestyle</p> <p>Information technology around us Identifying IT and how its responsible use improves our world in school and beyond</p> | <p>Creating Media (Digital Photography: 2.2) - Self-image and identity</p> <p>Digital photography Capturing and changing digital photographs for different purposes – photos for a museum</p> | <p>Programming A (Robot Algorithms 2.3) - Copyright and ownership</p> <p>Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions.</p> | <p>Data and information (Pictograms 2:4) - Privacy and security</p> <p>Pictograms (2.4) Collecting data in tally charts and using attributes to organise and present data on a computer.</p> | <p>Programming B (Programming quizzes:2.6)</p> <p>Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p> |