

**Brayford Academy Computing Rolling Programme**

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|  | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| Cycle A/C – 2020/2021  2022/2023 | **Computing systems and networks**  Year 1 | **Creating media – Digital photography**  Year 2 | **Data and information – Grouping data**  Year 1 | **Creating media - Digital music**  Year 2 | **Programming A – Moving a robot**  Year 1 | **Programming B - Programming animations**  Year 1 |
| Cycle B/D – 2021/2022  2023/2024 | **Computing systems and networks**  Year 2 | **Creating media – Digital painting**  Year 1 | **Creating media – Digital writing**  Year 1 | **Data and information – Pictograms**  Year 2 | **Programming A – Robot algorithms**  Year 2 | **Programming B - Programming quizzes**  Year 2 |

**KS1 – Teach Computing**

**KS2 – Teach Computing**

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|  | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| Cycle A – 2020/2021 | **Computing systems and networks**  Year 5 | **Creating Media – Web Page Creation** – Year 6 | **Creating Media – Animation** Year 3  ESAEFTY WEEK | **Data and Information –** Year 4 | **Programming A –** Year 5 | **Programming B –** Year 5 |
| Cycle B – 2021/2022 | **Computing systems and networks**  Year 6 | **Creating Media – Photo Editing** – Year 4 | **Creating Media – Desktop Publishing –** Year 3  ESAEFTY WEEK | **Data and Information –** Year 5 | **Programming A –** Year 6 | **Programming B –** Year 6 |
| Cycle C – 2022/2023 | **Computing systems and networks**  Year 3 | **Creating Media – Audio Production**  Year 4 | **Creating Media – Video Editing**  Year 5  ESAEFTY WEEK | **Data and Information –**  Year 6 | **Programming A –** Year 3 | **Programming B –** Year 3 |
| Cycle D – 2023/2024 | **Computing systems and networks**  Year 4 | **Creating Media – Vector Drawing**  Year 5 | **Creating Media – 3D Modelling**  Year 6  ESAEFTY WEEK | **Data and Information –** Year 3 | **Programming A –** Year 4 | **Programming B –** Year 4 |

**KS1 – National Curriculum Links Overview**

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| **Cycle A – 2020/2021 and Cycle C – 2022/2023** | | |
| **Autumn Term** | **Autumn Term 1 – Computing systems and networks**  Year 1 | **Autumn Term 2 - Autumn Term 2 - Creating media – Digital photography**  Year 2 |
| [**Computing**](https://www.computingatschool.org.uk/data/uploads/primary_national_curriculum_-_computing.pdf)   * Recognise common uses of information technology beyond school * Use technology purposefully to create, organise, store, manipulate, and retrieve digital content * 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.   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF) **Health, well-being and lifestyle**  * I can identify rules that help keep us safe and healthy in and beyond the home when using technology * I can give some simple examples   **Copyright and ownership**   * I know that the work I create belongs to me * I can name my work so that others know it belongs to me | **Computing**   * 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   **Art and design**   * To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form, and space   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)   * To identify that some images are not real (fake) |
| **Spring Term** | **Spring Term 1 - Data and information – Grouping data**  Year 1 | **Spring Term 2 - Creating media - Digital music**  Year 2 |
| [**Computing**](https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study)   * Use technology purposefully to create, organise, store, manipulate, and retrieve digital content * Use technology safely and respectfully   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF) **Copyright and ownership**  * I know that work I create belongs to me (Y1) * I can name my work so that others know it belongs to me (Y1) | [**Computing**](https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study)   * Use technology purposefully to create, organise, store, manipulate, and retrieve digital content   [**Music**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239037/PRIMARY_national_curriculum_-_Music.pdf)   * Play tuned and untuned instruments musically * Listen with concentration and understanding to a range of high-quality live and recorded music * Experiment with, create, select, and combine sounds using the interrelated dimensions of music   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF) **Copyright and ownership**  * I know that work I create belongs to me. |
| **Summer Term** | **Summer Term 1 - Programming A – Moving a robot**  Year 1 | **Summer Term 2 - Programming B - Programming animations**  Year 1 |
| **Computing**   * 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 * Recognise common uses of information technology beyond school | **Computing**   * 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 |

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| **Cycle B – 2021/2022 and Cycle D – 2023/2024** | | |
| **Autumn Term** | **Autumn Term 1 – Computing systems and networks**  Year 2 | **Autumn Term 2 - Creating media – Digital painting**  Year 1 |
| **Computing**   * 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   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF) **Health, well-being, and lifestyle**  * I can identify rules that help keep us safe and healthy in and beyond the home when using technology | **Computing**   * Use technology purposefully to create, organise, store, manipulate, and retrieve digital content   **Art and Design**   * To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form, and space * About the work of a range of artists, craft makers, and designers, describing the differences and similarities between different practices and disciplines and making links to their own work |
| **Spring Term** | **Spring Term 1 - Creating media – Digital writing**  Year 1 | **Spring Term 2 - Data and information – Pictograms**  Year 2 |
| [**Computing**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf)   * Use technology purposefully to create, organise, store, manipulate, and retrieve digital content * Use technology safely and respectfully, keeping personal information private   **English – writing (Y1)**  Write sentences by:   * saying out loud what they are going to write about * composing a sentence orally before writing it * sequencing sentences to form short narratives * re-reading what they have written to check that it makes sense   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)  **Privacy and security**   * I can give reasons why I should only share information with people I choose to and can trust. (Y1) | **Computing**   * use technology purposefully to create, organise, store, manipulate and retrieve digital content * 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   **Maths**  Building on Year 1 number and place value:   * Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: ‘equal to’, ‘more than’, ‘less than’ (‘fewer’), ‘most’, ‘least’   Year 2   * interpret and construct simple pictograms, tally charts, block diagrams and simple tables * ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity * ask and answer questions about totalling and comparing categorical data   Notes and guidance: Pupils record, interpret, collate, organise and compare information (for example, using many-to-one correspondence in pictograms with simple ratios 2, 5, 10).  [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF) **Self-image and identity**  * I can recognise that I can say ‘no’/‘please stop’/‘I’ll tell’/‘I’ll ask’ to somebody who asks me to do something that makes me feel sad, embarrassed or upset * I can explain how this could be either in real life or online * If something happens that makes me feel sad, worried, uncomfortable, or frightened I can give examples of when and how to speak to an adult I can trust  **Health, wellbeing and lifestyle**  * I can identify rules that help keep us safe and healthy in and beyond the home when using technology * I can give some simple examples   **Privacy and security**   * I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location) * I can describe the people I can trust and can share this with; I can explain why I can trust them * I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family’s names, where I go to school) |
| **Summer Term** | **Summer Term 1 - Programming A – Robot algorithms**  Year 2 | **Summer Term 2 - Programming B - Programming quizzes**  Year 2 |
| **Computing**   * 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 | **Computing**   * 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 |

**KS2 – National Curriculum Links Overview**

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| **Cycle A – 2020/2021** | | |
| **Autumn Term** | **Autumn Term 1 – Computer Systems and Networks**  **Year 5** | **Autumn Term 2 - Creating Media – Web Page Creation Year 6** |
| **Computing**   * 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   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)   * I am aware that a person’s online activity, history or profile (their ‘digital personality’) will affect the type of information returned to them in a search or on a social media feed, and how this may be intended to influence their beliefs, actions and choices. * I can explain how search engine rankings are returned and can explain how they can be influenced (e.g. commerce, sponsored results) | [**Computing**](https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study)   * 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.   **English**   * Writing composition: Identifying the audience for and purpose of the writing, selecting the appropriate form, and using other similar writing as models for their own.   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)  **Online relationships**   * I can use the internet with adult support to communicate with people I know. (EY-7)   **Managing information online**   * I can navigate online content, websites, or social media feeds using more sophisticated tools to get to the information I want (e.g. menus, sitemaps, breadcrumb-trails, site search functions). (11-14)   **Copyright and ownership**   * I can explain why copying someone else’s work from the internet without permission can cause problems. * I can give examples of what those problems might be. * When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. * I can give some simple examples. * I can assess and justify when it is acceptable to use the work of others. * I can give examples of content that is permitted to be reused. * I can demonstrate the use of search tools to find and access online content which can be reused by others. * I can demonstrate how to make references to and acknowledge sources I have used from the internet. * I can explain the principles of fair use and apply this to case studies. (11-14) |
| **Spring Term** | **Spring Term 1 - Creating Media – Animation**  **Year 3**  ESAEFTY WEEK | **Spring Term 2 - Data and Information**  **Year 4** |
| **Computing**● 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.**Literacy** ● Pupils should be taught to: draft and write by: in narratives, creating settings, characters and plot● Pupils should be taught to: proof-read for spelling and punctuation errors**History**● The Roman Empire and its impact on Britain[**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF) **Managing online information**● I can use key phrases in search engines.● I can use search technologies effectively.**Copyright and ownership**● I can explain why copying someone else’s work from the internet without permission can cause problems.● I can give examples of what those problems might be.● When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it.● I can give some simple examples.● I can give examples of content that is permitted to be reused. ● I can demonstrate the use of search tools to find and access online content which can be reused by others. | **Computing**   * Use sequence, selection, and repetition in programs; work with variables and various forms of input and output * 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   **Science – Lower key stage 2/Year 4**   * Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. * They should learn how to use new equipment, such as data loggers, appropriately. They should collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse this data. |
| **Summer Term** | **Summer Term 1 - Programming A**  **Year 5** | **Summer Term 2 - Programming B**  **Year 5** |
| [**Computing**](https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study)   * 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 * 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   [**Science – Electricity (Year 4)**](https://www.gov.uk/government/publications/national-curriculum-in-england-science-programmes-of-study/national-curriculum-in-england-science-programmes-of-study)   * Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches, and buzzers   **Design and Technology**  Design   * Generate, develop, model, and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces, and computer-aided design   Make   * Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing], accurately * Select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities   Evaluate   * Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work   Technical knowledge   * Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers, and motors] * Apply their understanding of computing to program, monitor, and control their products | [**Computing**](https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study)   * 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 * 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 |

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| **Cycle B – 2021/2022** | | |
| **Autumn Term** | **Autumn Term 1 – Computing systems and networks**  **Year 6** | **Autumn Term 2 - Creating Media – Photo Editing**  **Year 4** |
| **Computing**   * 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 * 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   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)   * I can describe and assess the benefits and the potential risks of sharing information online. * I can assess and justify when it is acceptable to use the work of others * I can give examples of content that is permitted to be reused | **Computing**   * 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   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)  **Self-image and identity**   * I can describe ways in which people might make themselves look different online |
| **Spring Term** | **Spring Term 1 - Creating Media – Desktop Publishing**  **ESAEFTY WEEK** | **Spring Term 2 - Data and Information**  **Year 5** |
| **Computing**   * 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   [**English**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335186/PRIMARY_national_curriculum_-_English_220714.pdf)   * Pupils should be taught to draft and write by: in non-narrative material, using simple organisational devices [for example, headings and subheadings] * Evaluate and edit by assessing the effectiveness of their own and others’ writing and suggesting improvements * Proofread for spelling and punctuation errors   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF) **Managing online information**  * I can use key phrases in search engines * I can use search technologies effectively   **Copyright and ownership**   * When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it * I can demonstrate the use of search tools to find and access online content which can be reused by others | **Computing**   * 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 |
| **Summer Term** | **Summer Term 1 - Programming A**  **Year 6** | **Summer Term 2 - Programming B**  **Year 6** |
| **Computing**   * 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 * 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 | **Computing**   * 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 * 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 |

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| **Cycle C – 2022/2023** | | |
| **Autumn Term** | **Autumn Term 1 – Computing systems and networks**  **Year 3** | **Autumn Term 2 - Creating Media – Audio Editing**  **Year 4** |
| **Computing**   * use sequence, selection, and repetition in programs; work with variables and various forms of input and output * 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 * 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   **Maths (Lesson 1)**   * **Number and place value:** solve number problems and practical problems involving these ideas.   **Art (Lesson 3)**   * to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] | **Computing**   * 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   **Science – Year 4 (Lesson 2)**   * **Sound:** Find patterns between the volume of a sound and the strength of the vibrations that produced it * **Sound:** Recognise that sounds get fainter as the distance from the sound source increases   **English – Years 3 and 4 (Lesson 3)**   * **Writing – composition:** Plan their writing by discussing and recording ideas * **Writing – draft and write by:** In non-narrative material, using simple organisational devices [for example, headings and subheadings] * **Writing:** Read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear   [**Education for a Connected World links**](https://www.gov.uk/government/publications/education-for-a-connected-world)  **Copyright and ownership**   * I can explain why copying someone else’s work from the internet without permission can cause problems (Y3) * I can give examples of what those problems might be (Y3) * When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it (Y4) * I can give some simple examples (Y4) |
| **Spring Term** | **Spring Term 1 - Creating Media – Video Editing**  **Year 5**  **ESAEFTY WEEK** | **Spring Term 2 - Data and Information**  **Year 6** |
| **Computing**   * 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   **Internet safety**   * Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour | [**Computing**](https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study)   * 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   [**Maths**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf)  Number – addition, subtraction, multiplication, and division:   * Solve problems involving addition, subtraction, multiplication, and division   Statistics:   * Interpret and construct pie charts and line graphs, and use these to solve problems * Calculate and interpret the mean as an average   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF) **Managing information online**  * I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites) * I can use different search technologies * I can evaluate digital content and can explain how I make choices from search results |
| **Summer Term** | **Summer Term 1 - Programming A**  **Year 3** | **Summer Term 2 - Programming B**  **Year 3** |
| **Computing**   * 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 * 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 | **Computing**   * 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 * 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 |

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| **Cycle D – 2023/2024** | | |
| **Autumn Term** | **Autumn Term 1 – Computing systems and networks**  **Year 4** | **Autumn Term 2 - Creating Media – Vector Drawing**  **Year 5** |
| **Computing**   * 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.   **PSHE (Lesson 6)**   * Evaluating content for honesty and accuracy   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)  **Managing online information**   * I can analyse information to make a judgement about probable accuracy, and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others. * I can explain what is meant by fake news, e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn’t. * I can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, or influencers). * I can describe how fake news may affect someone’s emotions and behaviour, and explain why this may be harmful. | **Computing**   * 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. |
| **Spring Term** | **Spring Term 1 - Creating Media – 3D Modelling**  **Year 6**  **ESAEFTY WEEK** | **Spring Term 2 - Data and Information**  **Year 3** |
| **Computing**   * 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   **Art and design**   * To improve their mastery of art and design techniques, including drawing, painting, and sculpture with a range of materials   **Design and technology**   * Generate, develop, model, and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design   **Maths**   * Recognise, describe, and build simple 3D shapes, including making nets   [**Education for a Connected World links**](https://www.gov.uk/government/publications/education-for-a-connected-world)  **Privacy and Security (Y4)** – I can describe strategies for keeping my personal information private, depending on context | **Computing**   * 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 |
| **Summer Term** | **Summer Term 1 - Programming A**  **Year 4** | **Summer Term 2 - Programming B**  **Year 4** |
| **Computing**   * 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 * 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 | **Computing**   * 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   [**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)  **Self-image and identity**   * I can describe ways in which people might make themselves look different online |