**National curriculum coverage for each subject-**

**Computing 2021-2022**

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|  | **Early Years** | **Key Stage 1** | **Lower Key Stage 2** | **Upper Key Stage 2** |
| **Autumn 1 – Computing Systems and Networks** | **Reception**  **PSED 3-4**  Increasingly follow rules, understanding why they are important.  **UTW 3-4**  Explore how things work.  **PD Reception**  Develop their small motor skills so that they can use a range of tools competently, safely and confidently.  **EA&D Reception**  Explore, use and refine a variety of artistic effects to express  their ideas andfeelings. | **Y1/Y2 -** use technology purposefully to create, organise, store, manipulate and retrieve digital content.  **Y1/Y2 -** recognise common uses of information technology beyond school.  **Y1/Y2 -** 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. | **Y3 -** use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  **Y3/Y4 -** 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.  **Y3/Y4 -** 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.  **Y4 –** use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  **Y4 -** use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | **Y5/Y6 -** design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **Y5/Y6 -** 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.  **Y5/Y6 -** 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.  **Y5 -** use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  **Y5 -** use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  **Y6 –** use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. |
| **Autumn 2 – Creating Media** | **Little Acorns**  **Physical development 0-3 years**  Develop manipulation and control  **Great Oak**  **PSED 3-4 years**  Remember rules without needing an adult to remind them  **Physical development 3-4 years**  Match their developing physical skills to tasks and activities in the setting  **Reception**  **PSED Reception**  Show resilience and perseverance in the face of a challenge  **Physical development**  Develop their small motor skills so that they can use a range of  tools competently, safely and confidently  **EA&D**  Explore, use and refine a variety of artistic effects to express  their ideas and feelings. | **Y1/Y2 -** use technology purposefully to create, organise, store, manipulate and retrieve digital content.  **Y2 -** recognise common uses of information technology beyond school. | **Y3/Y4 -** 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.  **Y4 –** use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  **Y4 -** use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | **Y5/Y6 -** use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  **Y5/Y6 -** 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.  **Y5/Y6 -** use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| **Spring 1 –**  **Programming A** | **Little Acorns**  **(0-3 Years)**  **C/L** - Listen and respond to simple instructions.  **Literacy** - Enjoy drawing freely.  Mathematics - Notice patterns and arrange things in patterns.  **UTW** - Repeat actions that have an effect.  **Great Oak**  **(3-4 Years)**  **PD** - Increasingly be able to use and remember sequences and patterns of movements which are related to music and rhythm.  **Mathematics** - Notice patterns and arrange things in patterns.  **Reception**  **PSED** - Increasingly follow rules, understanding why they are important.  **PD** - Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.  **EAD** - Explore, use and refine a variety of artistic effects to express their ideas and feelings. | **Y1/Y2 -** understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.  **Y1/Y2 -** create and debug simple programs.  **Y1/Y2 -** use logical reasoning to predict the behaviour of simple programs.  **Y1 -**recognise common uses of information technology beyond school. | **Y3/Y4 -**design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **Y3/Y4 -** use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  **Y3/Y4 -** use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  **Y3/Y4 -** 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. | **Y5/Y6 -**design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **Y5/Y6 -** use sequence, selection, and repetition in programs; work with variables and various forms of input and output. **Y5/Y6 -** use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  **Y5/Y6 -** 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.  **Y6 -** use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| **Spring 2 –**  **Data and Information** | **Little Acorns**  **(0-3 Years)**  **C/L** - Listen and respond to simple instructions.  **Literacy** - Enjoy drawing freely.  Mathematics - Notice patterns and arrange things in patterns.  **UTW** - Repeat actions that have an effect.  **Great Oak**  **(3-4 Years)**  **PD** - Increasingly be able to use and remember sequences and patterns of movements which are related to music and rhythm.  **Mathematics** - Notice patterns and arrange things in patterns.  **Reception**  **PSED** - Increasingly follow rules, understanding why they are important.  **PD** - Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.  **EAD** - Explore, use and refine a variety of artistic effects to express their ideas and feelings. | **Y1/Y2 -** use technology purposefully to create, organise, store, manipulate and retrieve digital content.  **Y1-** recognise common uses of information technology beyond school.  **Y2 -** 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. | **Y4 -** use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  **Y3/Y4 -** 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. | **Y5 -** use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  **Y5/Y6 -** 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 1 –**  **Creating Media** | **Little Acorns**  **C&L 0-3**  Listen and respond to simple instructions.  **PD 0-3**  Develop manipulation and control.  **UTW 0-3**  Repeat actions that have an effect.  **Great Oak**  **PSED 3-4**  Remember rules without needing an adult to remind them.  **UTW 3-4**  Explore how things work.  **Reception**  **PSED Reception**  Show resilience and perseverance in the face of challenge.  **UTW 3-4**  Explore how things work. | **Y1/Y2 -** use technology purposefully to create, organise, store, manipulate and retrieve digital content.  **Y1 -** 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. | **Y3/Y4 –** use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  **Y3/Y4 -** 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.  **Y4 -** use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | **Y5/Y6 -** 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.  **Y6 -** use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| **Summer 2 –**  **Programming B** | **Little Acorns**  **C&L 0-3**  Listen and respond to simple instructions.  **PD 0-3**  Develop manipulation and control.  **UTW 0-3**  Repeat actions that have an effect.  **Great Oak**  **PSED 3-4**  Remember rules without needing an adult to remind them.  **UTW 3-4**  Explore how things work.  **Reception**  **PSED Reception**  Show resilience and perseverance in the face of challenge.  **UTW 3-4**  Explore how things work. | **Y1/Y2 -** understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.  **Y1/Y2 -** create and debug simple programs.  **Y1/Y2 -** use logical reasoning to predict the behaviour of simple programs.  **Y1/Y2 -** use technology purposefully to create, organise, store, manipulate and retrieve digital content. | **Y3/Y4 -**design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **Y3/Y4 -** use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  **Y3/Y4 -** use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  **Y3/Y4 -** 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. | **Y5/Y6 -**design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **Y5/Y6 -** use sequence, selection, and repetition in programs; work with variables and various forms of input and output. **Y5/Y6 -** use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  **Y5/Y6 -** 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. |