

	EYS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	<p><b>Personal, Social and Emotional Development - Manging Self;</b></p> <p>☆☆☆ – Be confident to try new activities and show independence, resilience, and perseverance in the face of challenge. - Explain the reasons for rules, know right from wrong and try to behave; accordingly,</p> <p><b>E-Safety;</b></p> <p>☆☆☆ – Talk about good &amp; bad choices in real life e.g. taking turns, saying kind things, helping others, telling an adult if something upsets you. - Play appropriate games on the Internet. - Talk about good and bad choices when using websites – being kind, telling a grown up if something upsets us &amp; keeping ourselves safe by keeping information private.</p> <p><b>Technology in our Lives;</b></p> <p>☆☆☆ – Recognise purposes for using technology in school and at home. - Understand that things they create belong to them and can be shared with others using technology. - Recognise that they can use the Internet to play and learn.</p> <p><b>Expressive Art and Design – Creating with Materials;</b></p>	<p><b>How can I move this robot?</b></p> <p>🔗 English- writing</p> <p><b>Programming A- Moving a robot</b></p> <p>☆☆☆ Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.</p> <p>☆☆☆ Create and debug simple programs.</p> <p>☆☆☆ Use logical reasoning to predict the behaviour of simple programs.</p> <p>🔗 ⚙️ Recognise common uses of information technology beyond school.</p> <p><b>Writing short algorithms and programs for floor robots, and predicting program outcomes</b></p>	<p><b>Why did that not work?</b></p> <p><b>Programming A - Robotic algorithms</b></p> <p>☆☆☆ Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.</p> <p>☆☆☆ Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs</p> <p><b>Creating and debugging programs, and using logical reasoning to make predictions.</b></p>	<p><b>How does a digital device work?</b></p> <p><b>Computing systems and networks- Connecting computers</b></p> <p>☆☆☆ Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>☆☆☆ 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.</p> <p>☆☆☆ 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.</p> <p><b>Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</b></p>	<p><b>What is the internet?</b></p> <p><b>Computing systems and networks- The internet</b></p> <p>☆☆☆ 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.</p> <p>☆☆☆ Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>☆☆☆ 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.</p> <p>☆☆☆ Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p><b>Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</b></p>	<p><b>How is the information found on the internet?</b></p> <p><b>Computing systems and networks- System and searching</b></p> <p>☆☆☆ 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.</p> <p>☆☆☆ Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p><b>Identifying and exploring how information is shared between digital systems.</b></p>	<p><b>How is data transferred over the internet?</b></p> <p><b>Computing systems and networks- Internet communication</b></p> <p>☆☆☆ Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>☆☆☆ 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.</p> <p>☆☆☆ Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>☆☆☆ 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.</p> <p><b>Recognising how the WWW can be used to communicate and be searched to find information.</b></p>

☆☆☆ - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;

**Multimedia;**

☆☆☆ - Use a mouse to rearrange objects and pictures on a screen.  
 - Recognise text, images and sound when using ICT.  
 - Use a camera or sound recorder to collect photos or sound  
 - Begin to use a keyboard  
 - Develop an interest in ICT by using age appropriate websites or programs.

**Communication and Language – Listening, Attention and Understanding;**

☆☆☆ - Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions;  
 - Make comments about what they have heard and ask questions to clarify their understanding;

**Programming;**

☆☆☆ - Help adults operate equipment around the school.  
 - Use simple software to make things happen

**How does technology help us in everyday life?**

**Computing systems and Networks- Technology around us**

☆☆☆ 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.

Recognising technology in school and using it responsibly.

**How can music make you think and feel?**

 Music

**Creating media- Making music**

☆☆☆   Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Using a computer as a tool to explore rhythms and melodies, before creating a musical composition

**What is a branch database?**

 Science

**Data and Information Branching databases**

☆☆☆ Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable

☆☆☆ 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

Building and using branching databases to group objects using yes/no questions.

**What commands can you use?**

 Maths

**Programming A Repetition in shapes**

☆☆☆   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.

Using a text-based programming language to explore count-controlled loops when drawing shapes.

**What is a video?**

**Creating media- Video editing**

☆☆☆   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.

Planning, capturing, and editing video to produce a short film

**What makes a good website?**

**Creating media- Webpage creation**

☆☆☆   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.

Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation

- Press buttons on a floor robot and talk about the movements  
- Explore options and make choices with toys, software and websites

**Data Collection;**

☆☆☆ - Collect information as photos or sound files.  
- Use a simple pictogram or set of photos to count and organise information.

**How can we paint using computers?**

🔗 Art and design

**Creating media- Digital Painting**

☆☆☆ Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.

**How is the information technology (IT) being used for good in our lives?**

**Computing systems and networks\*- Information technology around us**

☆☆☆ 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.

Identifying IT and how its responsible use improves our world in school and beyond.

**How can I sequence sound?**

🔗 Music

**Programming A- Sequencing sounds**

☆☆☆ 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

Creating sequences in a block-based programming language to make music.

**What is input and output?**

🔗 Music

**Creating media- Audio editing**

☆☆☆ 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.

Capturing and editing audio to produce a podcast, ensuring that copyright is considered.

**What is physical computing?**

**Programming A- Selection in physical 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.

Exploring conditions and selection using a programmable microcontroller.

**What variables could I choose?**

🔗 Science

**Programming A- Variables in games**

☆☆☆ 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.

☆☆☆ Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Exploring variables when designing and coding a game.

**What is data and information?**

Data and Information- Grouping data

☆☆☆ Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

☆☆☆ Recognise common uses of information technology beyond school

Exploring object labels, then using them to sort and group objects by properties

**What devices can be used to capture a photo?**

Art and design

Creating media- Digital photography

☆☆☆ Recognise common uses of information technology beyond school.

☆☆☆ Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Capturing and changing digital photographs for different purposes

**Can a picture move?**

Art and design

Creating media- Stop-frame Animation

☆☆☆ 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

Capturing and editing digital still images to produce a stop-frame animation that tells a story

**How and why is data collected?**

Maths

Data and Information- Data logging

☆☆☆ 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.

Recognising how and why data is collected over time, before using data loggers to carry out an investigation.

**How do you use a flat-file database?**

Data and Information- Flat-file databases

☆☆☆ 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

Using a database to order data and create charts to answer questions

**How do you create a spreadsheet?**

Maths, Science, Geography

Data and Information- Introduction to Spreadsheets

☆☆☆ 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.

Answering questions by using spreadsheets to organise and calculate data.

**How do I program a sprite?**

Programming B – Programming animations

☆☆☆ 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.

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

Designing and programming the movement of a character on screen to tell stories.

**What is data and how can it be collected?**

Maths

Data and Information- Pictograms

☆☆☆ Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

☆☆☆ Recognise common uses of information technology beyond school.

Collecting data in tally charts and using attributes to organise and present data on a computer.

**What is a text and image?**

English – writing

Creating media- Desktop publishing

☆☆☆ 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Creating documents by modifying text, images, and page layouts for a specified purpose.

**How do I change and edit a digital image?**

Art and design

Creating media- Photo Editing

☆☆☆ 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.

Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.

**How do you use different drawing tools to help create images?**

Creating media- Vector drawing

☆☆☆ 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

Creating images in a drawing program by using layers and groups of objects

**How do I produce a 3D model on a computer?**

Maths

Creating media-3D Modelling

☆☆☆ 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.

Planning, developing, and evaluating 3D computer models of physical objects.

<p><b>How do I create and edit text?</b></p> <p>Creating media- Digital writing</p> <p>☆☆☆ ← Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>☆☆☆ ← 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</p> <p>Using a computer to create and format text, before comparing to writing non-digitally.</p>	<p><b>How do I create my own quiz?</b></p> <p>Programming B- Programming quizzes</p> <p>☆☆☆ ← 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.</p> <p>☆☆☆ ← Use logical reasoning to predict the behaviour of simple programs.</p> <p>☆☆☆ ← Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>☆☆☆ ← 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</p> <p>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p>	<p><b>How can it move through the maze?</b></p> <p>Programming B – Events and actions in Programs</p> <p>☆☆☆ ← Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>☆☆☆ ← Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>☆☆☆ ← Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>☆☆☆ ← 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</p> <p>Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>	<p><b>How can I make this do it more than once?</b></p> <p>Programming B- Repetition in games</p> <p>☆☆☆ ← Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>☆☆☆ ← Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>☆☆☆ ← Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>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.</p> <p>Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</p>	<p><b>What conditions should I choose?</b></p> <p>Programming B- Selection in quizzes</p> <p>☆☆☆ ← Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>☆☆☆ ← Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>☆☆☆ ← Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>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</p> <p>Exploring selection in programming to design and code an interactive quiz.</p> <p>Exploring selection in programming to design and code an interactive quiz.</p>	<p><b>What is a micro:bit?</b></p> <p>Programming B- Sensing Designing</p> <p>☆☆☆ ← Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>☆☆☆ ← Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>☆☆☆ ← Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>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.</p> <p>Sensing Designing and coding a project that captures inputs from a physical device</p>
--	---	---	--	--	--

Key

	<p>Build – area of study that builds on previous area of learning</p>		<p>Revisit – spaced retrieval</p>
	<p>Link – area of study links to another curriculum area</p>		<p>New - Introduce new content</p>

