

Computing

Purpose of study

- equip pupils to use computational thinking and creativity to understand and change the world.
- understand how digital systems work and how to put this knowledge to use through programming.
- use information technology to create programs, systems and a range of content.
- promote digital literacy - able to use, express themselves and develop their ideas through ICT.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate & apply information technology, including new/ unfamiliar technologies, to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Subject Content Key Stage 1

Pupils should be taught to:

- 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.

Subject Content Key stage 2

Pupils should be taught to:

- 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/output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- 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.







LONG TERM CURRICULUM OVERVIEW

| | | Autumn 1 | Autumn 2 | Spring Term | | Summer Term | |
|-------------|----------------|---|---|---|------------------------------|--|--|
| | | E-Safety: A Whole School Project | Communication / Presentation (Media) | Data Retrieval and Organising | Communication / Presentation | Algorithms and Programming | Data Retrieval and Organising (DH) |
| KS1 | Cycle 1 | Purple Mash Safe internet rules (link to CEOP) | Using Media 2-Simple Christmas Calendars (PM) | Comic Life Linked to explorers – fact files and posters | | Bee Bot Mapping | Purple Mash 2 Simple Data Handling |
| | Cycle 2 | Purple Mash Safe internet rules (link to CEOP) | Using Media 2 Simple Christmas Cards (PM) | Comic Life Linked to childhood – presentation (slides?) | | Bee Bot Mapping | Purple Mash 2 Simple Data Handling |
| LKS2 | Cycle 1 | Google Slides Information presentation | Using Media Stop motion animation | Google Tools (slides & drawing) Using the internet Presenting their ideas. | | 2-Simple: Block Coding | Google Sheets DH: Spreadsheets and Statistics |
| | Cycle 2 | Google Drawing Advice leaflet: keeping safe online. | Using Media Multimedia Presentations | Google Tools (slides & drawing) Using the internet Presenting their ideas. | | Robots: Lego We Do 2.0 (Block Coding) | Google Sheets DH: Spreadsheets and Statistics |
| UKS2 | Cycle 1 | Information Video Tips for primary children. | Using Media Stop motion animation | Google Tools (slides & drawing) Using the internet Presenting their ideas. | | 2-Simple: Block Coding | Google Sheets / Forms DH: Databases and Statistics |
| | Cycle 2 | Information Video Being kind online | Using Media Multimedia Presentations | Google Tools (slides & drawing) Using the internet Presenting their ideas. | | Robots: Lego We Do 2.0 (Block Coding) | Google Sheets / Forms DH: Databases and Statistics |







National Curriculum objectives for each strand of learning:

| | E-Safety | Data Retrieval and Organising | Communication | Algorithms and Programming |
|------------|---|--|--|---|
| KS1 | Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about context or contact on the internet or other online technologies | Use technology purposefully to create, organise, store, manipulate and retrieve digital content. | Recognise common uses of information technology beyond school. <i>Links to technology enhanced learning. What do we want children to be able to do by the end of each Key Phase – how will this enhance their learning across the curriculum?</i> | Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous of instructions. Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs |
| KS2 | Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | 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 | 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 | 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 |

EYF\$ Foundation Stage 1

| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|---|--|---|---|---|---|
| <p style="text-align: center;">E- SAFETY & USING TECHNOLOGY SAFELY</p> <p>Awareness of how to handle technology carefully introduce iPads with adult support.</p>  | <p style="text-align: center;">COMMUNICATION AND PRESENTATION</p> <p>Create a picture on the iPad.</p>  | <p style="text-align: center;">DATA RETRIEVING & ORGANISING</p> <p>Taking a photograph on an iPad</p>  | <p style="text-align: center;">COMMUNICATION AND PRESENTATION</p> <p>Using a range of equipment</p>  <p style="text-align: center;">CD player Talk buttons Talking Clipboards Torches</p> | <p style="text-align: center;">ALGORITHMS & PROGRAMMING</p> <p>Remote control cars</p>  | <p style="text-align: center;">DATA RETRIEVING & ORGANISING</p> <p>Self-portrait & name to introduce themselves to their new class.</p>  |
| <p style="text-align: center;">LINKS TO THE EYF\$</p> <p>Seeks to acquire basic skills in turning on and operating some ICT equipment.</p> | <p style="text-align: center;">LINKS TO THE EYF\$</p> <p>Uses ICT hardware to interact with age-appropriate computer software.</p> | <p style="text-align: center;">LINKS TO THE EYF\$</p> <p>Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones.</p> | <p style="text-align: center;">LINKS TO THE EYF\$</p> <p>Knows how to operate simple equipment, e.g. turns on CD player and uses remote control.</p> | <p style="text-align: center;">LINKS TO THE EYF\$</p> <p>Knows how to operate simple equipment, e.g. turns on CD player and uses remote control.</p> | <p style="text-align: center;">LINKS TO THE EYF\$</p> <p>Uses ICT hardware to interact with age-appropriate computer software.</p> |
| <p style="text-align: center;">KNOWLEDGE</p> <p>Do they know what an iPad is used for? Do they know how to handle the iPad safely with good control? Do they have knowledge of the safety 'rules' when using the iPads? Do they understand the term app?</p> | <p style="text-align: center;">KNOWLEDGE</p> <p>Do they know how to use the iPads safely with increasing control? Do they know how to open an app? Do they know how to use the different tools with the app to create a simple picture?</p> | <p style="text-align: center;">KNOWLEDGE</p> <p>Do they know how to open an app? Do they know which is the camera app? Do they know how to capture an image?</p> | <p style="text-align: center;">KNOWLEDGE</p> <p>Do they know how to turn on/off simple equipment? Do they know how to operate simple equipment?</p> | <p style="text-align: center;">KNOWLEDGE</p> <p>Do they know how to turn on the car? Do they know the directions forwards and backwards? Do they know what to do if the remote runs out of charge?</p> | <p style="text-align: center;">KNOWLEDGE</p> <p>Do they know how to open an app? Do they know how to use the different tools with the app to create a simple picture? Do they do how to delete an unwanted mark? Do they know how to add colour?</p> |
| <p style="text-align: center;">SKILLS</p> <p>Can they turn on an iPad? Can they open an app? Can they interact with an age appropriate program?</p> | <p style="text-align: center;">SKILLS</p> <p>Can they use a simple program to create a picture? Can they save their picture? Can they talk about their picture?</p> | <p style="text-align: center;">SKILLS</p> <p>Can they handle the iPad with good control to take a photo? Can they talk about their photo?</p> | <p style="text-align: center;">SKILLS</p> <p>Can they use simple equipment safely? Can they use simple equipment with purpose?</p> | <p style="text-align: center;">SKILLS</p> <p>Can they control their car to ensure it reaches a pre-determined destination?</p> | <p style="text-align: center;">SKILLS</p> <p>Can they use a simple program to create a picture? Can they save their picture? Can they talk about their picture? Can they print their name and picture?</p> |

EYF\$ Foundation Stage 2

| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|---|---|--|--|---|--|
| E- SAFETY Awareness of what a computer is used for and how to use a computer safely  | COMMUNICATION AND PRESENTATION: USING MEDIA Christmas Card using paint program  | DATA RETRIEVING & ORGANISING Taking a photograph on an iPad  | COMMUNICATION AND PRESENTATION Creating a bug fact file (picture with simple text)  | ALGORITHMS & PROGRAMMING Bee Bot Mapping  | DATA RETRIEVING & ORGANISING Logging in and accessing an activity  |
| LINKS TO THE EYFS Completes a simple program on a computer. | LINKS TO THE EYFS Completes a simple program on a computer. Children recognise that a range of technology is used in places such as homes and schools. | LINKS TO THE EYFS Children find out about and use a range of everyday technology. They select appropriate applications that support an identified need (take a photo of a special event/celebration). | LINKS TO THE EYFS Completes a simple program on a computer. Uses ICT hardware to interact with age-appropriate computer software. | LINKS TO THE EYFS Children find out about and use a range of technology. They select appropriate applications that support an identified need. | LINKS TO THE EYFS They select and use technology for purposes. Uses ICT hardware to interact with age-appropriate computer software. |
| KNOWLEDGE Do they know what a computer is used for? Do they know they need to control the mouse to work the computer? Do they know who they can ask to help if they are unsure? Do they know that websites sometimes include pop-ups that take them away from the main site? | KNOWLEDGE Do they know how to open a program on a computer? Do they have prior knowledge of a Christmas card design they can create? Do they know how to use the paint program and what the tools are used for? | KNOWLEDGE Do they know how to handle an iPad safely? Do they know how to open an iPad? Do they know what an app is? Do they know which the camera app is? Do they know how to take a photo? | KNOWLEDGE Do they know how to experiment with text, pictures and animation to make a simple picture to share with their class? Do they know how to print their picture? | KNOWLEDGE Do they know the pre-positions forwards, backwards, up and down? Do they know how to turn on a BEEBOT? Do they know what a BEEBOT does? Do they know how to plan and test a BEEBOT journey? | KNOWLEDGE Do they know that websites sometimes include pop-ups that take them away from the main site? Do they know that bookmarking is a way to find safe sites again quickly? Do they know what a username is? Do they know what a password is? |
| SKILLS Can they control the mouse? Can they open a programme on a computer? Can they act if they find something inappropriate online or something, they are unsure of (including identifying people who can help) Can they use the computer to interact with an age appropriate game/program? | SKILLS Can they use a mouse to activate the computer? Can they use a mouse to open a program (paint)? Can they select, use tools, change tools to produce a simple picture? Can they use the shape tools to create a simple design? Can they type their name on their picture using the keyboard? Can they save their work? | SKILLS Can they open an iPad? Can they open an app? Can they tap on the camera app? Do they know which app is the camera app? Do they know how to hold the iPad and position it/ holding it still to ensure the photo is of a good standard? Can they send the photo to print? Can they capture images with an iPad? Can they delete an unwanted photo? Can they print out a photograph from an iPad with support? | SKILLS Can they use paint to create a simple representation of a bug they like using the tools? Can they insert a text box using the mouse? Can they use the spacebar? Can they word process a simple sentence? Can they use the delete key to remove an unwanted letter? Can they save their work? Can they print their work? | SKILLS Can they turn on a BEEBOT? Can they plan a simple journey for the BEEBOT? Can they predict and test their predictions? Can they use forwards, backwards and begin to use some left and right positions? Can they repeat their route, adjusting and challenging themselves? | SKILLS Can they follow the school's safer internet rules? Can they use the search engines agreed by the school? Can they put their own username and password in to access their own activities? Can they interact with a simple program on a computer? |

KS1 Cycle 1

| Autumn 1 | Autumn 2 | Spring Term | | Summer Term | |
|---|--|---|--|--|--|
| E-Safety | Communication / Presentation (Media) | Data Retrieval and Organising | Communication / Presentation | Algorithms and Programming | Data Retrieval and Organising: Data Handling |
| Purple Mash: Safe Internet Rules | Using Media: Calendars | Comic Life: Fact Files and Posters | | Bee Bots: Mapping | Purple Mash: Data Handling |
| <p>KNOWLEDGE AND UNDERSTANDING: Do they know that websites sometimes include pop-ups that take them away from the main site? Do they know that bookmarking is a way to find safe sites again quickly? Can they begin to evaluate websites and know that everything on the internet is not true? Do they know that personal information should not be shared online?</p> <p>SKILLS: Can they follow the school's safer internet rules? Can they use the search engines agreed by the school? Can they act if they find something inappropriate online or something they are unsure of (including identifying people who can help; minimising screen; online reporting using school system etc)? Can they use the internet for learning and communicating with others, making choices when navigating through sites? Can they recognise advertising on websites and learn to ignore it? Can they use a password to access the secure network?</p> | <p>DATA RETRIEVAL AND ORGANISING: 2d. Can they experiment with text, picture and animation to make a simple picture? 2e Can they use the shape tools to draw? - Can they import a picture on purple mash? - Can they re-size a photo / picture?</p> <p>COMMUNICATING 2b Can they word process a piece of text? 2c Can they insert/delete a word using the mouse and arrow keys? 2d Can they highlight text to change its format (B, <u>, /)?</u></p> | <p>DATA RETRIEVAL AND ORGANISING: 2a Can they find information on a website? 2b Can they click links in a website? 2c Can they print a web page to use as a resource? 2d Can they experiment with text, pictures and animation to make a simple slide show? 2e Can they use the shape tools to draw?</p> | <p>COMMUNICATING: 2b Can they word process a piece of text? 2c Can they insert/delete a word using the mouse and arrow keys? 2d Can they highlight text to change its format (B, <u>, /)?</u></p> | <p>ALGORITHMS & PROGRAMS: 1a Can they create a simple series of instructions - left and right? 1b Can they record their routes? 1c Do they understand forwards, backwards, up and down? 1d Can they put two instructions together to control a programmable toy? 1e Can they begin to plan and test a Bee-bot journey? 2a Can they predict the outcomes of a set of instructions? 2b Can they use right angle turns? 2c Can they use the repeat commands? 2d Can they test and amend a set of instructions? 2e Can they write a simple program and test it? 2f Can they predict what the outcome of a simple program will be?</p> | <p>DATA RETRIEVAL AND ORGANISING: 1a Can they capture images with a camera? 1b Can they print out a photograph from a camera with help? 1d Can they enter information into a template to make a graph? 1e Can they talk about the results shown on a graph? 2a Can they find information on a website? 2b Can they click links in a website? 2c Can they print a web page to use as a resource?</p> |

KS1 Cycle 2

| KS1 Cycle 2 | | | | | |
|---|---|---|--|--|--|
| Autumn 1 | Autumn 2 | Spring Term | | Summer Term | |
| E-Safety | Communication / Presentation (Media) | Data Retrieval and Organising | Communication / Presentation | Algorithms and Programming | Data Retrieval and Organising: Data Handling |
| Purple Mash: Safe Internet Rules | Using Media: Cards | Comic Life: Fact Files and Posters | | Bee Bots: Mapping | Purple Mash: Data Handling |
| <p>KNOWLEDGE AND UNDERSTANDING: Do they know that websites sometimes include pop-ups that take them away from the main site? Do they know that bookmarking is a way to find safe sites again quickly? Can they begin to evaluate websites and know that everything on the internet is not true? Do they know that personal information should not be shared online?</p> <p>SKILLS: Can they follow the school's safer internet rules? Can they use the search engines agreed by the school? Can they act if they find something inappropriate online or something they are unsure of (including identifying people who can help; minimising screen; online reporting using school system etc)? Can they use the internet for learning and communicating with others, making choices when navigating through sites? Can they recognise advertising on websites and learn to ignore it? Can they use a password to access the secure network?</p> | <p>DATA RETRIEVAL AND ORGANISING: 2d. Can they experiment with text, picture and animation to make a simple picture? 2e Can they use the shape tools to draw? - Can they import a picture on purple mash? - Can they re-size a photo / picture?</p> <p>COMMUNICATING: 2b Can they word process a piece of text? 2c Can they insert/delete a word using the mouse and arrow keys? 2d Can they highlight text to change its format (B, <u>, /)?</u></p> | <p>DATA RETRIEVAL AND ORGANISING: 2a Can they find information on a website? 2b Can they click links in a website? 2c Can they print a web page to use as a resource? 2d Can they experiment with text, pictures and animation to make a simple slide show? 2e Can they use the shape tools to draw?</p> | <p>COMMUNICATING: 2b Can they word process a piece of text? 2c Can they insert/delete a word using the mouse and arrow keys? 2d Can they highlight text to change its format (B, <u>, /)?</u></p> | <p>ALGORITHMS & PROGRAMS: 1a Can they create a simple series of instructions - left and right? 1b Can they record their routes? 1c Do they understand forwards, backwards, up and down? 1d Can they put two instructions together to control a programmable toy? 1e Can they begin to plan and test a Bee-bot journey? 2a Can they predict the outcomes of a set of instructions? 2b Can they use right angle turns? 2c Can they use the repeat commands? 2d Can they test and amend a set of instructions? 2e Can they write a simple program and test it? 2f Can they predict what the outcome of a simple program will be?</p> | <p>DATA RETRIEVAL AND ORGANISING: 1a Can they capture images with a camera? 1b Can they print out a photograph from a camera with help? 1d Can they enter information into a template to make a graph? 1e Can they talk about the results shown on a graph? 2a Can they find information on a website? 2b Can they click links in a website? 2c Can they print a web page to use as a resource?</p> |

LK\$2 Cycle 1

| LK\$2 Cycle 1 | | | | | |
|---|--|--|---|---|--|
| Autumn 1 | Autumn 2 | Spring Term | | Summer Term | |
| E-Safety | Communication / Presentation (Media) | Data Retrieval and Organising | Communication / Presentation | Algorithms and Programming | Data Retrieval and Organising: Data Handling |
| Presentation: Google Slides | Media: Stop Motion Animation | Google Tools: Using the Internet and Presenting Ideas | | 2-Simple: Block Coding | Data Handling: spreadsheets and statistics |
| <p>KNOWLEDGE AND UNDERSTANDING: Do they know that websites sometimes include pop-ups that take them away from the main site? Do they know that bookmarking is a way to find safe sites again quickly? Can they begin to evaluate websites and know that everything on the internet is not true? Do they know that personal information should not be shared online?</p> <p>SKILLS: Can they follow the school's safer internet rules? Can they use the search engines agreed by the school? Can they act if they find something inappropriate online or something they are unsure of (including identifying people who can help; minimising screen; online reporting using school system etc)? Can they use the internet for learning and communicating with others, making choices when navigating through sites? Can they recognise advertising on websites and learn to ignore it? Can they use a password to access the secure network?</p> | <p>DATA RETRIEVAL AND ORGANISING: 3a Can they review images on a camera and delete unwanted images? 3c Can they use photo editing software to crop photos and add effects? 3d Can they manipulate sound when using simple recording story boarding? 4a Can they capture images using webcams, screen capture, scanning, visualiser and internet?</p> <p>COMMUNICATING: 4a Do they appreciate the benefits of ICT to send messages and to communicate?</p> <p>PRESENTATION: 4a Can they create a lengthy presentation that moves from slide to slide and is aimed at a specific audience? 4b Can they insert sound recordings into a multi media presentation?</p> | <p>DATA RETRIEVAL AND ORGANISING: 4b Can they choose images and download into a file? 4c Can they download images from the camera into files on the computer? 4d Can they copy graphics from a range of sources and paste into a desktop publishing program?</p> <p>USING THE INTERNET: 3a Can they find relevant information by browsing a menu. 3b Can they search for an image, then copy and paste it into a document? 3c Can they use 'Save picture as' to save an image to the computer? 3d Can they copy and paste text into a document? 3e Do they begin to use note making skills to decide what text to copy? 4a Can they use a search engine to find a specific website? 4b Can they use note-taking skills to decide which text to copy and paste into a document? 4c Can they use tabbed browsing to open two or more web pages at the same time? 4d Can they open a link to a new window? 4e Can they open a document (PDF) and view it?</p> | <p>COMMUNICATING: 4a Do they appreciate the benefits of ICT to send messages and to communicate? 4b Can they use the automatic spell checker to edit spellings?</p> <p>PRESENTATION: 3a Can they create a presentation that moves from slide to slide and is aimed at a specific audience? 3b Can they combine text, images and sounds and show awareness of audience? 3c Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder? 4a Can they create a lengthy presentation that moves from slide to slide and is aimed at a specific audience? 4b Can they insert sound recordings into a multi media presentation? 4c Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder?</p> | <p>ALGORITHMS & PROGRAMS: 3a Can they experiment with variables to control models? 3b Can they use 90 degree and 45 degree turns? 3c Can they give an on-screen robot directional instructions? 3d Can they draw a square, rectangle and other regular shapes on screen, using commands? 3e Can they write more complex programs? 4a Can they use repeat instructions to draw regular shapes on screen, using commands? 4b Can they experiment with variables to control models? 4c Can they make turns specifying the degrees? 4d Can they give an on-screen robot specific directional instructions that takes them from x to y? 4e Can they make accurate predictions about the outcome of a program they have written?</p> | <p>DATABASES: 3a Can they input data into a prepared database? 3b Can they sort and search a database to answer simple questions? 3c Can they use a branching database? 4a Can they input data into a prepared database? 4b Can they sort and search a database to answer simple questions? 4c Do they recognise what a spread sheet is? 4d Can they use the terms 'cells', 'rows' and 'columns'? 4e Can they enter data, highlight it and make bar charts?</p> |

LK\$2 Cycle 2

| Autumn 1 | Autumn 2 | Spring Term | | Summer Term | |
|---|--|--|---|---|--|
| E-Safety | Communication / Presentation (Media) | Data Retrieval and Organising | Communication / Presentation | Algorithms and Programming | Data Retrieval and Organising: Data Handling |
| Advice leaflet: keeping safe online | Media: multimedia presentations | Google Tools: Using the Internet and Presenting Ideas | | Robots: Lego We Do 2.0 (Block Coding) | Data Handling: spreadsheets and statistics |
| <p>KNOWLEDGE AND UNDERSTANDING: Do they know that websites sometimes include pop-ups that take them away from the main site? Do they know that bookmarking is a way to find safe sites again quickly? Can they begin to evaluate websites and know that everything on the internet is not true? Do they know that personal information should not be shared online?</p> <p>Skills: Can they follow the school's safer internet rules? Can they use the search engines agreed by the school? Can they act if they find something inappropriate online or something they are unsure of (including identifying people who can help; minimising screen; online reporting using school system etc)? Can they use the internet for learning and communicating with others, making choices when navigating through sites? Can they recognise advertising on websites and learn to ignore it? Can they use a password to access the secure network?</p> | <p>DATA RETRIEVAL AND ORGANISING: 3a Can they review images on a camera and delete unwanted images? 3c Can they use photo editing software to crop photos and add effects? 3d Can they manipulate sound when using simple recording story boarding? 4a Can they capture images using webcams, screen capture, scanning, visualiser and internet?</p> <p>COMMUNICATING: 4a Do they appreciate the benefits of ICT to send messages and to communicate?</p> <p>PRESENTATION: 3a Can they create a presentation that moves from slide to slide and is aimed at a specific audience? 3b Can they combine text, images and sounds and show awareness of audience? 3c Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder? 4a Can they create a lengthy presentation that moves from slide to slide and is aimed at a specific audience? 4b Can they insert sound recordings into a multi media presentation? 4c Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder?</p> | <p>DATA RETRIEVAL AND ORGANISING: 4b Can they choose images and download into a file? 4c Can they download images from the camera into files on the computer? 4d Can they copy graphics from a range of sources and paste into a desktop publishing program?</p> <p>USING THE INTERNET: 3a Can they find relevant information by browsing a menu. 3b Can they search for an image, then copy and paste it into a document? 3c Can they use 'Save picture as' to save an image to the computer? 3d Can they copy and paste text into a document? 3e Do they begin to use note making skills to decide what text to copy? 4a Can they use a search engine to find a specific website? 4b Can they use note-taking skills to decide which text to copy and paste into a document? 4c Can they use tabbed browsing to open two or more web pages at the same time? 4d Can they open a link to a new window? 4e Can they open a document (PDF) and view it?</p> | <p>COMMUNICATING: 4a Do they appreciate the benefits of ICT to send messages and to communicate? 4b Can they use the automatic spell checker to edit spellings?</p> <p>PRESENTATION: 3a Can they create a presentation that moves from slide to slide and is aimed at a specific audience? 3b Can they combine text, images and sounds and show awareness of audience? 3c Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder? 4a Can they create a lengthy presentation that moves from slide to slide and is aimed at a specific audience? 4b Can they insert sound recordings into a multi media presentation? 4c Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder?</p> | <p>ALGORITHMS & PROGRAMS: 3a Can they experiment with variables to control models? 3b Can they use 90 degree and 45 degree turns? 3c Can they give an on-screen robot directional instructions? 3d Can they draw a square, rectangle and other regular shapes on screen, using commands? 3e Can they write more complex programs? 4a Can they use repeat instructions to draw regular shapes on screen, using commands? 4b Can they experiment with variables to control models? 4c Can they make turns specifying the degrees? 4d Can they give an on-screen robot specific directional instructions that takes them from x to y? 4e Can they make accurate predictions about the outcome of a program they have written?</p> | <p>DATABASES: 3a Can they input data into a prepared database? 3b Can they sort and search a database to answer simple questions? 3c Can they use a branching database? 4a Can they input data into a prepared database? 4b Can they sort and search a database to answer simple questions? 4c Do they recognise what a spread sheet is? 4d Can they use the terms 'cells', 'rows' and 'columns'? 4e Can they enter data, highlight it and make bar charts?</p> |

UK\$2 Cycle 1

| UK\$2 Cycle 1 | | | | | |
|---|--|--|---|---|---|
| Autumn 1 | Autumn 2 | Spring Term | | Summer Term | |
| E-Safety | Communication / Presentation (Media) | Data Retrieval and Organising | Communication / Presentation | Algorithms and Programming | Data Retrieval and Organising: Data Handling |
| Information Video: Tips for Primary Children | Media: Stop Motion Animation | Google Tools: Using the Internet and Presenting Ideas | | 2-Simple: Block Coding | Data Handling: spreadsheets and statistics |
| <p>KNOWLEDGE AND UNDERSTANDING: Can they discuss the positive and negative impact of the use of ICT in their own lives and those of their peers and family? Do they understand the potential risk of providing personal information online? Do they understand that some websites and/or pop-ups have commercial interests that may affect the way the information is presented? Do they recognise the potential risks of using internet communication tools and understand how to minimise those risks (including scams and phishing)? Do they understand that some messages may be malicious and know how to deal with this? Do they understand that online environments have security settings, which can be altered, to protect the user? Do they understand the benefits of developing a 'nickname' for online use? Do they understand that some malicious adults may use various techniques to make contact and elicit personal information? Do they know that it is unsafe to arrange to meet unknown people online? Do they know how to report any suspicions? Do they know that content put online is extremely difficult to remove? Do they know what to do if they discover something malicious or inappropriate?</p> | <p>DATA RETRIEVAL AND ORGANISING: 5e Can they select music from open sources and incorporate it into multimedia presentations? 5f Can they work on simple film editing? 6a Can they explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)? 6c Can they 'save as' gif or i peg. wherever possible to make the file size smaller (for emailing or downloading)?</p> <p>PRESENTATION: 5a Can they use a range of presentation applications? 5b Do they consider audience when editing a simple film? 5c Do they know how to prepare and then present a simple film? 5d Can they use ICT to record sounds and capture both still and video images? 5e Can they make a home page for a website that contains links to other pages? 5f Can they capture sounds, images and video? 5g Can they use the word count tool to check the length of a document? 5h Can they use bullets and numbering tools? 6a Can they present a film for a specific audience and then adapt same film for a different audience? 6b Can they create a sophisticated multimedia presentation? 6c Can they confidently choose the correct page set up option when creating a document?</p> | <p>DATA RETRIEVAL AND ORGANISING: 6a Can they explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)? 6c Can they 'save as' gif or i peg. wherever possible to make the file size smaller (for emailing or downloading)?</p> <p>USING THE INTERNET: 5a Can they use a search engine using keyword searches? 5b Can they compare the results of different searches? 5c Can they decide which sections are appropriate to copy and paste from at least two web pages? 5d Can they save stored information following simple lines of enquiry? 5e Can they download a document and save it to the computer? 6a Can they contribute to discussions online? 6b Can they use a search engine using keyword searches? 6c Can they use complex searches using such as '+' 'OR' "Find the phrase in inverted commas"?</p> | <p>PRESENTATION: 5a Can they use a range of presentation applications? 5b Do they consider audience when editing a simple film? 5c Do they know how to prepare and then present a simple film? 5d Can they use ICT to record sounds and capture both still and video images? 5e Can they make a home page for a website that contains links to other pages? 5f Can they capture sounds, images and video? 5g Can they use the word count tool to check the length of a document? 5h Can they use bullets and numbering tools? 6a Can they present a film for a specific audience and then adapt same film for a different audience? 6b Can they create a sophisticated multimedia presentation? 6c Can they confidently choose the correct page set up option when creating a document?</p> | <p>ALGORITHMS & PROGRAMS: 5a Can they combine sequences of instructions and procedures to turn devices on or off? 5b Do they understand input and output? 5c Can they use an ICT program to control an external device that is electrical and/or mechanical? 5d Can they use ICT to measure sound or light or temperate using sensors? 5e Can they explore 'What is' questions by playing adventure or quest games? 5f Can they write programs that have sequences and repetitions? 6a Can they explain how an algorithm works? 6b Can they detect errors in a program and correct them? 6c Can they use an ICT program to control a number of events for an external device? 6d Can they use ICT to measure sound, light or temperature using sensors and interpret the data? 6e Can they explore 'what if' questions by planning different scenarios for controlled devices? 6f Can they use input from sensors to trigger events? 6g Can they check and refine a series of instructions?</p> | <p>DATABASES: 5a Can they create a formula in a spreadsheet and then check for accuracy and plausibility? 5b Can they search databases for information using symbols such as > < or <? 5c Can they create databases planning the fields, rows and columns? 5d Can they create graphs and tables to be copied and pasted into other documents? 6a Can they collect live data using data logging equipment? 6b Can they identify data error, patterns and sequences? 6c Can they use the formulae bar to explore mathematical scenarios? 6d Can they create their own database and present information from it?</p> |

UK\$2 Cycle 2

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|---|---|--|---|---|--|
| Autumn 1 | Autumn 2 | Spring Term | | Summer Term | |
| E-Safety | Communication / Presentation (Media) | Data Retrieval and Organising | Communication / Presentation | Algorithms and Programming | Data Retrieval and Organising: Data Handling |
| Information Video: Being Kind Online | Media: multimedia presentations | Google Tools: Using the Internet and Presenting Ideas | | Robots: Lego We Do 2.0 (Block Coding) | Data Handling: spreadsheets and statistics |
| <p>KNOWLEDGE AND UNDERSTANDING: Can they discuss the positive and negative impact of the use of ICT in their own lives and those of their peers and family? Do they understand the potential risk of providing personal information online? Do they understand that some websites and/or pop-ups have commercial interests that may affect the way the information is presented? Do they recognise the potential risks of using internet communication tools and understand how to minimise those risks (including scams and phishing)? Do they understand that some messages may be malicious and know how to deal with this? Do they understand that online environments have security settings, which can be altered, to protect the user? Do they understand the benefits of developing a 'nickname' for online use? Do they understand that some malicious adults may use various techniques to make contact and elicit personal information? Do they know that it is unsafe to arrange to meet unknown people online? Do they know how to report any suspicions? Do they know that content put online is extremely difficult to remove? Do they know what to do if they discover something malicious or inappropriate?</p> | <p>DATA RETRIEVAL AND ORGANISING: 5e Can they select music from open sources and incorporate it into multimedia presentations? 5f Can they work on simple film editing? 6a Can they explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)? 6b Can they add special effects to alter the appearance of a graphic? 6c Can they 'save as' gif or i peg. wherever possible to make the file size smaller (for emailing or downloading)? 6d Can they make an information poster using their graphics skills to good effect?</p> <p>PRESENTATION: 5a Can they use a range of presentation applications? 5b Do they consider audience when editing a simple film? 5c Do they know how to prepare and then present a simple film? 5d Can they use ICT to record sounds and capture both still and video images? 5f Can they capture sounds, images and video? 5g Can they use the word count tool to check the length of a document? 5h Can they use bullets and numbering tools? 6a Can they present a film for a specific audience and then adapt same film for a different audience? 6b Can they create a sophisticated multimedia presentation? 6c Can they confidently choose the correct page set up option when creating a document?</p> | <p>DATA RETRIEVAL AND ORGANISING:</p> <p>USING THE INTERNET: 5a Can they use a search engine using keyword searches? 5b Can they compare the results of different searches? 5c Can they decide which sections are appropriate to copy and paste from at least two web pages? 5d Can they save stored information following simple lines of enquiry? 5e Can they download a document and save it to the computer? 6a Can they contribute to discussions online? 6b Can they use a search engine using keyword searches? 6c Can they use complex searches using such as '+' 'OR' "Find the phrase in inverted commas"?</p> | <p>PRESENTATION: 5a Can they use a range of presentation applications? 5b Do they consider audience when editing a simple film? 5c Do they know how to prepare and then present a simple film? 5d Can they use ICT to record sounds and capture both still and video images? 5e Can they make a home page for a website that contains links to other pages? 5f Can they capture sounds, images and video? 5g Can they use the word count tool to check the length of a document? 5h Can they use bullets and numbering tools? 6a Can they present a film for a specific audience and then adapt same film for a different audience? 6b Can they create a sophisticated multimedia presentation? 6c Can they confidently choose the correct page set up option when creating a document? 6d Can they confidently use text formatting tools, including heading and body text? 6e Can they use the 'hanging indent' tool to help format work where appropriate (e.g. a play script)?</p> | <p>ALGORITHMS & PROGRAMS: 5a Can they combine sequences of instructions and procedures to turn devices on or off? 5b Do they understand input and output? 5c Can they use an ICT program to control an external device that is electrical and/or mechanical? 5d Can they use ICT to measure sound or light or temperate using sensors? 5e Can they explore 'What is' questions by playing adventure or quest games? 5f Can they write programs that have sequences and repetitions? 6a Can they explain how an algorithm works? 6b Can they detect errors in a program and correct them? 6c Can they use an ICT program to control a number of events for an external device? 6d Can they use ICT to measure sound, light or temperature using sensors and interpret the data? 6e Can they explore 'what if' questions by planning different scenarios for controlled devices? 6f Can they use input from sensors to trigger events? 6g Can they check and refine a series of instructions?</p> | <p>DATABASES: 5a Can they create a formula in a spreadsheet and then check for accuracy and plausibility? 5b Can they search databases for information using symbols such as = > or <? 5c Can they create databases planning the fields, rows and columns? 5d Can they create graphs and tables to be copied and pasted into other documents? 6a Can they collect live data using data logging equipment? 6b Can they identify data error, patterns and sequences? 6c Can they use the formulae bar to explore mathematical scenarios? 6d Can they create their own database and present information from it?</p> |

