

Computing Long Term Coverage

Intent Statement:

At Athersley North Primary School, we believe that Computing and the use of ICT is central to the education of all pupils. We aim to give each pupil the opportunity to apply and develop their technological understanding and skills across a wide range of situations and tasks. Pupils are encouraged to develop a confident and safe approach to Computing and the use of ICT in a non-discriminating and effective way. With the knowledge that Computing and ICT will undoubtedly continue to form a major part in the pupil's life at home, in further education and places of work, we ensure the Computing and ICT experiences and abilities that the pupils are equipped with at Athersley North, are effective and transferrable life skills.

Therefore, our computing curriculum is designed to equip pupils with the skills and understanding to live in a technological world; this includes being able to use a variety of computer software and coding programmes. There is an emphasis on the importance of Online Safety for all year groups.

| | Reception | KS1 | KS2 |
|-------------------|--|--|---|
| Objectives | Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. | <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 | <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -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 -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 |

Autumn Term 1

| | Reception | KS1 (cycle a) | KS1 (cycle b) | LKS2 (cycle a) | LKS2 (cycle b) | UKS2 (cycle a) | UKS2 (cycle b) |
|---|--|---|---|---|---|---|---|
| Main Theme | 1. Objects that can be switched on and off e.g. robot, iPad. 2. Naming parts of a computer. 3. Controlling and clicking a mouse. 4. Switch on and shut down a computer. 5. Logging on to 6. Shutting down. In provision: Computer and keyboard in home corner for pretend play. | Using and Applying: Key Basic Skills | Using and applying: Microsoft Word | Using and Applying: Microsoft Word | Using and Applying: PowerPoint | Using and Applying: Spreadsheets | Using and Applying: Spreadsheets |
| Outline of Lessons | | 1. Using a Mouse 2. Switch on and Shutdown 3. Applications and Windows 4. Folders and Save 5. Dragging 6. Using Our Computer Skills | 1. Typing 2. Symbols and Save 3. Editing 4. Undo and Redo 5. Select and Format 6. Formatting Text | 1. Screenshots and Passwords 2. Change Case 3. Align Text 4. Bullets and Numbering 5. Advanced Select and Keyboard Shortcuts 6. Using Text Boxes and Text Wrap | 1. Planning a Branching story 2. Creating the slides 3. Themes, transitions and animations 4. Action Settings 5. Audio and Video 6. Completing the Story | 1. Number Operations 2. Ordering and Presenting Data 3. Add, Edit and Calculate Data 4. Solving Problems 5. Party Plan Budget 6. Design You Own | 1. Number Operations 2. Ordering and Presenting Data 3. Add, Edit and Calculate Data 4. Solving Problems 5. Party Plan Budget 6. Design You Own |
| Progression Area: | Information Technology: EYFS | Information Technology: KS1 B | Information Technology: KS1 B | Information Technology: LKS2 B | Information Technology: LKS2 B | Information Technology: UKS2 B and UKS2 C | Information Technology: UKS2 B/C/D |
| E-safety Theme: 1st lesson of every half term (Google Legends KS2 Think Uknow KS1) | Smartie penguin social stories: Not talking to people online. Not sharing names online. | Personal Information. Lesson 1: To understand what personal information is https://www.youtube.com/watch?v=nMUbHuf08 | Personal Information. Lesson 1: To understand what personal information is https://www.youtube.com/watch?v=nMUbHuf08 | Be Internet Sharp: Good (and bad) news travels fast online, and children can sometimes find themselves in tricky situations with lasting consequences. But what can they do to prevent this? The answer: understand how to share smartly with those they know – and those they don't. Google Legends: Think before you share, Pages 52-55 | Be Internet Sharp: Good (and bad) news travels fast online, and children can sometimes find themselves in tricky situations with lasting consequences. But what can they do to prevent this? The answer: understand how to share smartly with those they know – and those they don't. Google Legends: Think before you share, Pages 52-55 | Be Internet Sharp: Good (and bad) news travels fast online, and children can sometimes find themselves in tricky situations with lasting consequences. But what can they do to prevent this? The answer: understand how to share smartly with those they know – and those they don't. Google Legends: Think before you share, Pages 62-64 | Be Internet Sharp: Good (and bad) news travels fast online, and children can sometimes find themselves in tricky situations with lasting consequences. But what can they do to prevent this? The answer: understand how to share smartly with those they know – and those they don't. Google Legends: Think before you share, Pages 62-64 |
| Objective | Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. They select and use technology for particular purposes. | Use technology purposefully to create, organise, store, manipulate and retrieve digital content | Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. | 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. | 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. | Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. | Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. |
| Vocabulary | Computer, application, letters, text, bold, italic, underline, draw, click, double-click, shape, open, save, resize, minimize, restore | Keyboard, symbol, edit, font, shift, space, enter, bold, italic, underline, backspace, delete, Mouse, Cursor, Click, Shutdown, Drag | Keyboard, symbol, edit, font, shift, space, enter, bold, italic, underline, backspace, delete, Mouse, Cursor, Click, Shutdown, Drag | Undo, redo, bold, italic, underline, case, align, text, cut, copy, paste, insert, screenshot, ctrl, shortcuts, bullets, numbering, textbox, format, insert | Text, number, cells, rows, formulae, spreadsheet, function, data, graph | formulae, spreadsheet, models, what if? variable, Text, number, cells, rows, average, min, max, formulae, spreadsheet, function, data, graph | |
| Cultural Capital | Keyboards using in continuous provision | Device day (no pencils/pens) | Device day (no pencils/pens) | Device day (no pencils/pens) | Device day (no pencils/pens) | Device day (no pencils/pens) | Device day (no pencils/pens) |

Autumn Term 2

| | Reception | KS1 (cycle a) | KS1 (cycle b) | LKS2 (cycle a) | LKS2 (cycle b) | UKS2 (cycle a) | UKS2 (cycle b) |
|---|--|--|--|--|--|--|--|
| Main Theme | 1. Use the mouse to control a paint brush 2. Click to select different colours. 3. Find and open a paint programme on the desktop by double clicking. In provision: Interactive whiteboard in use with free flow paint programme open. | 2 Paint | Computer Art | Animation: Stop Motion App: IPAD | Animation: Stop Motion App: IPAD | Film-making | Modelling Purple Mash |
| Outline of Lessons | | 1. Skills Check 2. Typing 3. Editing 4. Paint with Shapes 5. Paint with Brushes 6. Text and Images | 1. Pixel Pointillism 2. Mastering Mondrian 3. Producing Picasso 4. Colour Coding 5. PC Pop Art 6. Creating a Masterpiece! | 1. History of Animation 2. Stick Figure Animation 3. Recording Movement of Characters 4. Structured Timing 5. Stop-Motion Animation 6. Evaluating Animation Techniques | 1. History of Animation 2. Stick Figure Animation 3. Recording Movement of Characters 4. Structured Timing 5. Stop-Motion Animation 6. Evaluating Animation Techniques | 1. Writing a Script 2. Research and Sources 3. Filming 4. Interviewing 5. Editing 6. Publishing | 1) Introduction to 2DIY 3D 2) Creating Games using the play environment and characters 3) Play mode 4) Saving and sharing games 5) Evaluating game design |
| Progression Area: | | Information Technology: KS1 A | Information Technology: KS1 A | Information Technology: LKS2 A | Information Technology: LKS2 A | Information Technology: UKS2 A | Information Technology: UKS2 A |
| E-safety Theme: 1st lesson of every half term (Google Legends KS2 Think Uknow KS1) | Smartie penguin Tell, tell, tell: When to tell an adult who can help. Dealing with pop ups. | Trusted Adults Lesson 2: To identify trusted adults who can help https://www.youtube.com/watch?v=nMUbHuf08 | Trusted Adults Lesson 2: To identify trusted adults who can help https://www.youtube.com/watch?v=nMUbHuf09 | Be Internet Alert: People and situations online aren't always what they seem. Internet Legends know how to tell the difference between what's real and what's not. Google Legends: Check it's for real, Pages 52-54 | Be Internet Alert: People and situations online aren't always what they seem. Internet Legends know how to tell the difference between what's real and what's not. Google Legends: Check it's for real, Pages 52-55 | Be Internet Alert: People and situations online aren't always what they seem. Internet Legends know how to tell the difference between what's real and what's not. Google Legends: Check it's for real, Pages 65-68 | Be Internet Alert: People and situations online aren't always what they seem. Internet Legends know how to tell the difference between what's real and what's not. Google Legends: Check it's for real, Pages 65-69 |
| Objective | Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. They select and use technology for particular purposes. | Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school | Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school | Analyse, evaluate and present data and information. Use a variety of software to design and create content that accomplish given goals. Use a variety of software, on a range of digital devices, to design and create content that accomplish given goals | Analyse, evaluate and present data and information. Use a variety of software to design and create content that accomplish given goals. Use a variety of software, on a range of digital devices, to design and create content that accomplish given goals | 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 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 |
| Vocabulary | Paint, colour, brush, shape, save, fill, undo, redo, format, re-size | cut, copy, paste, insert, adjust, screenshot, ctrl, shortcuts, bullets, numbering, textbox, format, insert, format, re-size | Animation, frames, control, image, onion-skipping, time slider, stop-motion, adjust, insert, format, re-size | Animation, frames, control, image, onion-skipping, time slider, stop-motion, adjust, insert, format, re-size | Script, film-making, shot, files, sources, response, preview, credit, frames, control, adjust, insert, format, re-size, scale | 3D, 3D, import, shape, push, pull, CAD (Computer Aided design), modelling, net, points, template, polygon, viewpoint, frames, control, adjust, insert, format, re-size, scale, shot | |
| Cultural Capital | 2 Paint on the class Direct Display for Continuous Provision | Wallace and Gromit - behind the scenes for stop animation | Wallace and Gromit - behind the scenes for stop animation | Wallace and Gromit - behind the scenes for stop animation | Wallace and Gromit - behind the scenes for stop animation | Learn about photography (as someone's profession). | Learn about graphic design |

Spring Term 1

| | Reception | KS1 (cycle a) | KS1 (cycle b) | LKS2 (cycle a) | LKS2 (cycle b) | UKS2 (cycle a) | UKS2 (cycle b) |
|---------------------------|---|--|--|--|--|---|---|
| Theme | | Online safety | Online safety | Online safety | Online safety | Online Safety | Online Safety |
| Outline of Lessons | 1. Discuss screen time and acceptable amounts. 2. spotting unfamiliar pictures and pop ups and telling an adult. 3. Searching for an looking at the correct and appropriate pictures. 4. Talking online telling an adult. 5. Using and playing on appropriate games and apps. In provision: Digi duck and smartie penguin books | 1. Safe - Discuss pictures that may be taken while wearing uniforms and telling passwords etc. 2. Meeting - Discuss meetings people that you have met on the internet. 3. Accepting - Accepting images, pictures, texts, calls and pop ups from you don't know or trust as they may contain a virus. 4. Reliable - Is the information you are reading reliable? 5. Tell - Telling people if you see something you are unsure about on the internet. Who should you tell? 6. Safety Week Presentation | 1. Safe - Discuss pictures that may be taken while wearing uniforms and telling passwords etc. 2. Meeting - Discuss meetings people that you have met on the internet. 3. SMART: Are you SMART on the internet/games? Children to assess their own actions and teacher to plan for any issues. 4. Reliable - Discuss how to know whether information is reliable. 5. Tell - Teach children what to do if they are unsure of anything or worried about anything online. 6. Safety Week Presentation | 1. How do I stay safe on the internet? Safe: Discuss how to stay safe on the internet. 2. Meeting: Stranger danger and not meeting people in person. 3. SMART: Are you SMART on the internet/games? Children to assess their own actions and teacher to plan for any issues. 4. Reliable: Discuss how to know whether information is reliable. 5. Tell: Teach children what to do if they are unsure of anything or worried about anything online. 6. Safety Week Presentation | 1. Safe: Discuss how to stay safe on the internet. 2. Meeting: Stranger danger and not meeting people in person. 3. SMART: Are you SMART on the internet/games? Children to assess their own actions and teacher to plan for any issues. 4. Reliable: Discuss how to know whether information is reliable. 5. Tell: Teach children what to do if they are unsure of anything or worried about anything online. 6. Safety Week Presentation | 1. Safe: Discuss what the children share on the internet – link to snapchat and live streaming. 2. Meeting: Talk about internet etiquette when they meet people online. 3. Accepting: Playing online games. 4. Reliable: Keeping things private 5. Tell: What children should do when they are worried? 6. Safety Week Presentation | 1. Safe: Discuss what the children share on the internet – link to snapchat and live streaming. 2. Meeting: Talk about internet etiquette when they meet people online. 3. Accepting: Playing online games. 4. Reliable: Keeping things private 5. Tell: What children should do when they are worried? 6. Safety Week Presentation |
| Progression Area: | Digital Literacy: EYFS | Digital Literacy: KS1 A | Digital Literacy: KS1 A | Digital Literacy: LKS2 A | Digital Literacy: LKS2 A | Digital Literacy: UKS2 A | Digital Literacy: UKS2 A |
| Objective | Knows that information can be retrieved from computers. Completes a simple program on a computer. Uses ICT hardware to interact with age-appropriate computer software. Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. | 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 | 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 | Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 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 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 | 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 |
| Vocabulary | e-safety, safe, devices, online, password, communication | e-safety, safe, devices, online, password, communication | Cyber-bullying, e-safety, audience, safe, devices, online, social media, password, communication, privacy settings | Cyber-bullying, e-safety, audience, safe, devices, online, social media, password, communication, privacy settings | Cyber-bullying, e-safety, audience, safe, devices, online, social media, password, communication, privacy settings, SMART, privacy policy, plagiarism, digital citizenship | Cyber-bullying, e-safety, audience, safe, devices, online, social media, password, communication, privacy settings, SMART, stereotype, privacy policy, plagiarism, digital citizenship | |

Computing - Curriculum Progression

| Cultural Capital | Stay and Play sessions with Esafety focus | Safety week presentation - Children will present what they have learnt over the half term to parents/carers. E-safety day | Safety week presentation - Children will present what they have learnt over the half term to parents/carers. E-safety day | Safety week presentation - Children will present what they have learnt over the half term to parents/carers. E-safety day | Safety week presentation - Children will present what they have learnt over the half term to parents/carers. E-safety day | Safety week presentation - Children will present what they have learnt over the half term to parents/carers. E-safety day | Safety week presentation - Children will present what they have learnt over the half term to parents/carers. E-safety day |
|--|---|--|---|---|---|---|---|
| Spring Term 2 | | | | | | | |
| | Reception | KS1 (cycle a) | KS1 (cycle b) | LKS2 (cycle a) | LKS2 (cycle b) | UKS2 (cycle a) | UKS2 (cycle b) |
| Theme | | Code.org | Code.org | Code.org | Code.org | Code.org | Code.org |
| Outline of Lessons | 1. Turn a piece of equipment on and off e.g. CD player, programmable toy. 2. Use 2-simple to create a town (making cars move and lights flash).In provision: Play equipment e.g. washing machine, microwave, oven for pretend play. | Course A Lesson 2: learn to drag and drop, Lesson 3: Happy Maps, Lesson 4: Sequencing with Scrat, Lesson 5: Programming with Scrat, Lesson 6: Programming with Rey and BB-8, Lesson 7: Happy Loops, Lesson 8: Loops with Scrat, Lesson 9: Loops with Laurel, Lesson 10: Ocean Scene with Loops | Course B: Lesson 2: Move it, Move it, Lesson 3: Sequencing with Angry Birds, Lesson 4: Programming with Angry Birds, Lesson 5: Programming with Harvester, Lesson 6: Getting Loopy, Lesson 7: Loops with Laurel, Lesson 8: Loops with Laurel, Lesson 9: Drawing Gardens with Loops | Course C: Lesson 3: My Robotic Friends Jr, Lesson 4: Programming with Angry Birds, Lesson 5: debugging in maze, Lesson 6: collecting treasure with Laurel, Lesson 7: creating art with code, Lesson 10: loops with Rey and BB8, Lesson 11: harvesting crops with loops | Course D: Lesson 2: introduction to online puzzles, Lesson 3: relay programming, Lesson 4: debugging with Laurel, Lesson 5, events in bounce, Lesson 6 build a star wars game, Lesson 7: loops in age, Lesson 8: drawing shapes with loops, Lesson 9: nested loops in maze, Lesson 11: if/else with bee, Lesson 12:while loops in farmer | Course E: Lesson 1:sequencing in maze, lesson 2:drawing with loops, lesson 3: conditionals in Minecraft, Lesson 4: conditionals with the farmer, lesson 6:swimming fish with sprite lab, Lesson 7: alien dance party with sprite lab, lesson 9 about me with sprite lab | Course F: Lesson 1 functions in Minecraft, lesson 2:swimming fish with sprite lab, lesson 3:alien dance party with sprite lab, lesson 4:drawing with loops, lesson 5:nested loops in maze, lesson 7:variables with artist, lesson 8:changing variables with bee, lesson 9:changing variables with artist |
| Area | Computer Science EYFS | Computer Science KS1 A/B | Computer Science KS1 A/B | Computer Science: LKS2 A/B | Computer Science: LKS2 A/B | Computer Science: UKS2 A/B | Computer Science: UKS2 A/B |
| E-safety Theme: 1st lesson of every half term (Google Legends KS2 Think Uknow KS1) | Digi duck social story: Searching for pictures online. Not sending other people pictures online. When to tell an adult. | Lesson 3. Sharing personal information. LO: To understand what personal information should not be shared https://www.youtube.com/watch?v=nMUBHuf08 | Lesson 3. Sharing personal information. LO: To understand what personal information should not be shared https://www.youtube.com/watch?v=nMUBHuf09 | Be Internet Secure: Personal privacy and security are as important online as they are in the real world. Keeping valuable information safe helps children avoid damaging their devices, reputations and relationships. Google Legends: Protect your stuff Pages 56-61 | Be Internet Secure: Personal privacy and security are as important online as they are in the real world. Keeping valuable information safe helps children avoid damaging their devices, reputations and relationships. Google Legends: Protect your stuff Pages 56-61 | Be Internet Secure: Personal privacy and security are as important online as they are in the real world. Keeping valuable information safe helps children avoid damaging their devices, reputations and relationships. Google Legends: Protect your Stuff Pages 68 -71 | Be Internet Secure: Personal privacy and security are as important online as they are in the real world. Keeping valuable information safe helps children avoid damaging their devices, reputations and relationships. Google Legends: Protect your Stuff Pages 68 -71 |
| Objective | • Completes a simple program on a computer. • Uses ICT hardware to interact with age-appropriate computer software. Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. | * 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 | * 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 | * 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. | * 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. | * 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. | * 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. |
| Vocabulary | | A quarter turn, squares, rectangle, instructions, algorithm, debug, error, right, left. | A quarter turn, squares, rectangle, instructions, algorithm, debug, error, right, left. | Goal, logical, de-bug, repetition, predict, program, algorithm, sequence, instructions. | Goal, logical, de-bug, repetition, predict, program, algorithm, sequence, instructions, duplicate, function. | pen up, pen down, Goal, logical, de-bug, repetition, predict, program, algorithm, sequence, feature, instructions, duplicate, function, software. | polygons, command, pen up, pen down, Goal, logical, de-bug, repetition, predict, program, algorithm, sequence, feature, instructions, duplicate, function, software, blocks, variables. |
| Cultural Capital | Virtual reality day (Using VR) | Virtual reality day (Using VR) Device day (no pencils/pens) | Virtual reality day (Using VR) Device day (no pencils/pens) | Virtual reality day (Using VR) Device day (no pencils/pens) | Virtual reality day (Using VR) Device day (no pencils/pens) | Virtual reality day (Using VR) Device day (no pencils/pens) | Virtual reality day (Using VR) Device day (no pencils/pens) |
| Summer Term 1 | | | | | | | |
| | Reception | KS1 (cycle a) | KS1 (cycle b) | LKS2 (cycle a) | LKS2 (cycle b) | UKS2 (cycle a) | UKS2 (cycle b) |
| Main Theme | | Programming toys- Bee Bots | Programming with Scratch Jr | Code.org | Code.org | Code.org | Code.org |
| Outline of Lessons | 1. Turn the beebot on and off. 2. Programme a beebot backwards and forwards. 3. Programme a Beebot using two step instructions e.g. forward 1. In provision: Beebots and Beebot mats | 1. Building Bricks 2. Potato Man Algorithms 3. Program a Person 4. Bee-Bot Toy Shop Part 1 5. Debugging Bee-Bots 6. Bee-Bot Toy Shop Part 2 | 1. Cool Characters 2. Grow and Shrink 3. Time to Move 4. Repeat 5. Sounds 6. Sequencing | Course C: Lesson 12: Looking ahead with Minecraft, Lesson 13: Sticker Art with Loops, Lesson 15: Build a Flappy game. Lesson 16: Chase game with events END OF COURSE PROJECT | Course D: Lesson 13: until loops in maze, Lesson 14: harvesting with conditionals, Lesson 16: artist binary. END OF COURSE PROJECT | Course E: Lesson 11 nested loops, lesson 12:fancy shapes with nested loops Lesson 13: nested loops with frozen, lesson 15: functions in Minecraft, lesson 16: functions with harvest, lesson 17 functions with artist. END OF COURSE PROJECT | Course F: Lesson 10:simulating experiments, Lesson 12:for loops with bee, lesson 13:for loops with artist, lesson 15: behaviours in sprite lab, lesson 16: virtual pet with sprite lab, END OF COURSE PROJECT |
| Progression Area: | Computer Science EYFS | Computer Science KS1 A | Computer Science: KS1 C | Computer Science: LKS2 B/C | Computer Science: LKS2 B/C | Computer Science: UKS2 B/C | Computer Science: UKS2 B/C |
| E-safety Theme: 1st lesson of every half term (Google Legends KS2 Think Uknow KS1) | Smartie Penguin: Say no. To know when something is wrong. Never say yes online. Tell an adult. | Lesson 4. Right to say no. LO: To understand I have the right to say no. https://www.youtube.com/watch?v=nMUBHuf08 | Lesson 4. Right to say no. LO: To understand I have the right to say no. | Be Internet Kind: The internet amplifies everything: good things seem more exciting, bad things seem much worse and can hurt – a lot. A great rule to live by online, as well as off, is ‘treat others as you would like to be treated yourself’. Children can have a positive impact on others and stop bullying in its tracks by refusing to join in. Google Legends: Respect each other Pages 56-61 | Be Internet Kind: The internet amplifies everything: good things seem more exciting, bad things seem much worse and can hurt – a lot. A great rule to live by online, as well as off, is ‘treat others as you would like to be treated yourself’. Children can have a positive impact on others and stop bullying in its tracks by refusing to join in. Google Legends: Respect each other Pages 56-61 | Be Internet Kind: The internet amplifies everything: good things seem more exciting, bad things seem much worse and can hurt – a lot. A great rule to live by online, as well as off, is ‘treat others as you would like to be treated yourself’. Children can have a positive impact on others and stop bullying in its tracks by refusing to join in. Google Legends: Respect each other Pages 72 -74 | Be Internet Kind: The internet amplifies everything: good things seem more exciting, bad things seem much worse and can hurt – a lot. A great rule to live by online, as well as off, is ‘treat others as you would like to be treated yourself’. Children can have a positive impact on others and stop bullying in its tracks by refusing to join in. Google Legends: Respect each other Pages 72 -74 |
| Objective | • Completes a simple program on a computer. • Uses ICT hardware to interact with age-appropriate computer software. Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. | * 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 | * 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 | * 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. | * 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. | * 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. | * 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. |
| Vocabulary | | Bee-bot, instructions, program, algorithm, debug, sequence | project, character, background, repetition, predict, sequence, instructions, program, algorithm, debug | Goal, logical, de-bug, repetition, predict, program, algorithm, sequence, instructions | Goal, logical, de-bug, repetition, predict, program, algorithm, sequence, instructions, duplicate, function | Goal, logical, de-bug, repetition, predict, program, algorithm, sequence, feature, instructions, duplicate, function, software. | Goal, logical, de-bug, repetition, predict, program, algorithm, sequence, feature, instructions, duplicate, function, software, blocks, variables. |
| Cultural Capital | Beebots out as continuous provision area. | Beebots - have out in reading area. | Beebots - have out in reading area. | Beebots - have out in reading area. | Beebots - have out in reading area. | Beebots - have out in reading area. | Beebots - have out in reading area. |
| Summer Term 2 | | | | | | | |
| | Reception | KS1 (cycle a) | KS1 (cycle b) | LKS2 (cycle a) | LKS2 (cycle b) | UKS2 (cycle a) | UKS2 (cycle b) |
| Main Theme | | Presentation skills: PowerPoint | Presentation skills: PowerPoint | Presentation skills: Drawing and Desktop Publishing | Presentation skills: Drawing and Desktop Publishing | Presentation skills: Internet Research and Webpage design | Presentation skills: Internet Research and Webpage design |
| Outline of Lessons | 1. Know how to type name on word. 2. Find and open a programme to type on or a programme to draw on. In provision: Pretend keyboard in provision. Name writing in capital letters in provision. | 1. Folders 2. What is a presentation? 3. New Slide, Slide Layout 4. Add and Format an Image 5. Reorder Slides and Present 6. Searching and Printing | 1. Folders 2. What is a presentation? 3. New Slide, Slide Layout 4. Add and Format an Image 5. Reorder Slides and Present 6. Searching and Printing | 1. Objects 2. Ordering and Grouping 3. Manipulating Objects 4. Posters 5. Combining Text and Images 6. Effective Layouts | 1. Objects 2. Ordering and Grouping 3. Manipulating Objects 4. Posters 5. Combining Text and Images 6. Effective Layouts | 1. What Makes a Good Webpage? 2. Page Layout 3. Type the Text 4. Images 5. Hyperlinks 6. Publishing the Page | 1. What Makes a Good Webpage? 2. Page Layout 3. Type the Text 4. Images 5. Hyperlinks 6. Publishing the Page |
| Progression Area: | Information Technology: EYFS Digital Literacy: EYFS | Information Technology: KS1 B Digital Literacy: KS1 B | Information Technology: KS1 B Digital Literacy: KS1 B | Information Technology: LKS2 B Digital Literacy: LKS2 B | Information Technology: LKS2 B Digital Literacy: LKS2 B | Information Technology: UKS2 B Digital Literacy: UKS2 B | Information Technology: UKS2 B Digital Literacy: UKS2 B |
| E-safety Theme: 1st lesson of every half term (Google Legends KS2 Think Uknow KS1) | Digi duck social stories: Appropriate pictures and age appropriate games. Pop-ups. When to tell an adult. | Lesson 5. Online and offline behaviour LO: To understand what behaviour others value offline and online. https://www.youtube.com/watch?v=nMUBHuf08 | Lesson 5. Online and offline behaviour LO: To understand what behaviour others value offline and online. https://www.youtube.com/watch?v=nMUBHuf09 | Be Internet Brave: When children come across something they're not sure about online, they should feel comfortable talking to a trusted adult. Adults can support this by showing they're open to talking, even about difficult or embarrassing things at home and in the classroom. Google Legends: When in Doubt, Discuss See page 19. See page 32. | Be Internet Brave: When children come across something they're not sure about online, they should feel comfortable talking to a trusted adult. Adults can support this by showing they're open to talking, even about difficult or embarrassing things at home and in the classroom. Google Legends: When in Doubt, Discuss See page 19. See page 32. | Be Internet Brave: When children come across something they're not sure about online, they should feel comfortable talking to a trusted adult. Adults can support this by showing they're open to talking, even about difficult or embarrassing things at home and in the classroom. Google Legends: When in Doubt, Discuss See page 19. See page 32. | Be Internet Brave: When children come across something they're not sure about online, they should feel comfortable talking to a trusted adult. Adults can support this by showing they're open to talking, even about difficult or embarrassing things at home and in the classroom. Google Legends: When in Doubt, Discuss See page 19. See page 32. |
| Objective | • Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. • Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. • Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. They select and use technology for particular purposes. | * 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. | * 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. | * 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. | * 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. | * Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and resending data and information. | * Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and resending data and information. |
| Vocabulary | | Undo, redo, bold, italic, underline, case, align, text, cut, copy, paste, insert, screenshot, numbering, insert | Undo, redo, bold, italic, underline, case, align, text, cut, copy, paste, insert, screenshot, numbering, insert | Image • Order and group • re-size • Arrange • Manipulate • Layout • Format • Layout | Image • Order and group • re-size • Arrange • Manipulate • Layout • Format • Layout | layout, webpage, images, insert, format, URL, bias, copyright, resize | layout, webpage, images, insert, format, URL, bias, copyright, resize |
| Cultural Capital | 2Simple on Direct Display for use in Continuous Provision | 2Simple on Direct Display for use in Provision | 2Simple on Direct Display for use in Provision | Use Laptops/Chrome Books for typing work in some lessons. | Use Laptops/Chrome Books for typing work in some lessons. | Use Laptops/Chrome Books for typing work in some lessons. | Use Laptops/Chrome Books for typing work in some lessons. |