

COMPUTING SCHEME OF WORK



Planning for Learning

Think about:

- What do I want them to learn?
- What do I need to do to help them do this?
- What is the evidence of Learning?
- How will I assess what they have learnt?

RECEPTION YEAR

TOPICS FOR 2018-2019: Journeys, Lights and Sounds, Out of this world, Amazing Animals, Once upon a time, Superheroes

Understanding the world

Children recognise that a range of technology is used in places such as homes and schools.
Select and use technology for particular purposes.

RECEPTION – Autumn Term 1 Journeys

DEVELOPMENT MATTERS STATEMENTS	I am learning to.....	Evidence of learning
<i>Knows how to operate simple equipment (T30-50)</i>	Use simple equipment such as a stapler, selotape dispenser, torch, whisk Vocabulary: Equipment, hole punch, stapler, selotape dispenser, torch	To use a stapler to staple two pieces of paper together To use a selotape dispenser to cut a piece of selotape safely To use cooking utensils to mix and measure ingredients e.g during bread making activity and role play area
<i>Shows an interest in technological toys with knobs and pulleys or real life objects (T30-50)</i> <i>Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movement or new images (T30-50)</i>	Use technological toys with knobs and pulleys Vocabulary: Knobs, pulleys, pressing, button, effect, flap	To make toys work by pressing parts e.g a torch, sound toy/ book To pretend to use real life objects e.g mobile phone, camera, during role play activities To know how to use a lift the flap book correctly

<p><i>Knows that information can be retrieved from computers (T30-50)</i></p>	<p>Understand that a computer can be used to find information</p> <p>Vocabulary: Computer, share, information</p>	<p>Know that the teacher uses the computer to share information e.g a video, a powerpoint presentation during a whole class teaching session</p>
<p>Electronic Communication <i>Knows that information can be retrieved from computers (T30-50)</i></p>	<p>Begin to understand that Computing can be used to communicate ideas in different ways.</p> <p>Use tapestry to communicate (whole class).</p> <p>Vocabulary: tapestry, communicate, share</p>	<p>Share home learning on tapestry with the class</p>
<p>Data Handling/Problem Solving Links with Maths and Understanding the world</p>	<p>Begin to develop simple classification skills by carrying out simple sorting activities (probably away from the computer).</p> <p>Contribute to whole class creation of pictograms or simple graphs.</p> <p>Vocabulary: Sort, compare, pictogram, graph</p>	<p>During maths meetings create a bar chart for the weather</p> <p>To sort groups of objects e.g healthy and unhealthy foods, man made and natural materials, real and alien words,</p>
<p>RECEPTION – Autumn Term 2 Lights and Sounds</p>		
<p>Text Editing and Multimedia <i>Completes a simple program on a computer. (T40-60)</i> <i>Interact with age-appropriate computer software (T40-60)</i></p>	<p>Use a mouse to move and control content on a laptop or computer.</p> <p>Vocabulary: Mouse, computer, screen, pointer, icon, double-click</p>	<p>To use a mouse to complete a computer programme e.g</p>
<p>RECEPTION – Spring Term 1 Out of this World</p>		

<p>Simulations <i>Interacts with age-appropriate computer software (T 40-60)</i> <i>Children recognise that a range of technology is used in places such as homes and schools. (T ELG)</i></p>	<p>Explore outcome when individual buttons are pressed on a BeeBot</p> <p>Play with programmable toys.</p> <p>Vocabulary: Button, Beebot, programmable</p>	<p>Explore what happens when I press the buttons on a BeeBot</p> <p>Programme the Beebot to move in the direction I want it to</p>
<p>Art Packages <i>Completes a simple program on a computer (T 40-60)</i> <i>Interacts with age-appropriate computer software (T 40-60)</i></p>	<p>Understand there are a variety of tools in a graphics (art) package (2simple)</p> <p>Vocabulary: Icons,</p>	<p>To use different tools to make a picture</p>
<p>Text Editing and Multimedia <i>Completes a simple program on a computer (T 40-60)</i> <i>Interacts with age-appropriate computer software (T 40-60)</i> <i>Children recognise that a range of technology is used in places such as homes and schools. (T ELG)</i></p>	<p>Use a mouse to move and control content on a laptop or computer.</p> <p>Begin to use a keyboard (with support) to write my name</p> <p>Vocabulary: Mouse, keyboard, type, keys, delete, space bar</p>	<p>Write my name on a piece of work I have created on the computer</p>
<p>RECEPTION – Spring Term 2 Amazing Animals</p>		
<p>Online Safety</p>	<p>To start to learn the SMART online safety rules (Safe, Meeting, Accepting, Reliable, Tell)</p> <p>Know to tell someone if they view content they think is inappropriate or upsetting.</p> <p>Vocabulary: Keeping safe, e-safety</p>	<p><i>Children will view the following CEOP video:</i> <i>Thinkyouknow.co.uk</i> <u><i>Hector’s World Episodes 1 -6 over the course of the term</i></u></p>

<p>Research <i>Select and use technology for particular purposes. (T ELG)</i></p>	<p>With support enter text into a search engine to find specific given websites.</p> <p>With support use a digital microscope to look more closely at objects.</p> <p>Vocabulary: Website, search engine, microscope, Google</p>	<p>To enter text into Google.</p> <p>To find a website, video or pictures from their search</p> <p>To use a digital microscope to look at objects more closely</p>
<p>Digital Photographs and Videos <i>Children recognise that a range of technology is used in places such as homes and schools. Select and use technology for particular purposes. (T ELG)</i></p>	<p>To use the camera and video functions on an ipad</p> <p>Vocabulary: Camera, photo, video, ipad</p>	<p>To take pictures of animals and living things using the ipad</p> <p>To take a video of a role play or story telling session</p>
<p>Sound and Music <i>Children recognise that a range of technology is used in places such as homes and schools. Select and use technology for particular purposes. (T ELG)</i></p>	<p>Understand that technology devices can be used to record and play back sounds. (iPads, microphones)</p> <p>Vocabulary: Microphones, video, playback, record</p>	<p>To show the pictures that I have taken.</p> <p>To watch the video that I have taken</p>
<p>RECEPTION – Summer Term Once upon a time Superheroes</p>		

<p><i>Select appropriate applications that support an identified need (T ELG+)</i></p>	<p>To independently select what technology to use when a need arises</p> <p>Vocabulary: Ipad, apps,</p>	<p>Model to children how to use a variety of apps e.g for practising letter formation, Numberline show me, one more one less,</p> <p>During continuous provision resources are made available for children to select if a need arises e.g ipad, digital microscope</p>
--	--	--

YEAR 1

**Dinosaurs Come Rain or Shine Man on the Moon The Big Smoke All Creatures Great & Small
Out and About**

- 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

POS statements	I am learning to.....	Evidence of learning
<p>Communication in the Digital World Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school</p>	<p>Text Editing and Multimedia Use the space bar, back space, enter, shift (caps lock) and arrow keys. Begin to word process short texts. (using clicker 7 or 2simple) Add captions to pictures or graphics. Use save, retrieve, amend and print.</p> <p>Electronic Communication Use simple authoring tools to create their own messages or page on dB Primary. Contribute ideas to a class email and/or blog on dB primary</p> <p>Graphics/Art Use a paint package to create a picture to communicate their ideas using shape, line and colour, using various tools including brushes, pens, lines, fill, spray and stamps. Discuss reasoning for choice of tool. Use save, retrieve, amend and print.</p> <p>Digital Photos & Video Editing Understand the difference between still pictures and video recordings. Be able to take still and video recordings. Start to edit picture on a tablet/computer</p> <p>Sound Music Use recording devices to record sound.</p> <p>Key Vocab: Log in/on, Log out, Save, insert, edit</p>	<p>Can produce simple sentences using on a computer, laptop or iPad.</p> <p>Can insert pictures on to work.</p> <p>Can Save and Print work.</p> <p>Can make a picture using a range of colours and using at least 3 different tools/effects</p> <p>Can be able to take a picture and video on an iPad or Camera and be able to discuss the differences between the two.</p>
<p>Exploring the Digital world</p>	<p>Data Handling</p>	<p>Can discuss how to classify and group animals.</p>

<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school</p>	<p>Develop simple classification skills by carrying out sorting activities. (Science link) Research Talk about websites they have been on. Explore a website by clicking on buttons, arrows, menu, and hyperlinks to navigate websites, dB Primary or other areas of stored information. Navigate 'back' by clicking on the back button. Complete a search under the supervision of an adult.</p>	<p>Able to find information using a computer, laptop or iPad. Can navigate website, click on links and go back to previous page.</p>
<p>Shaping the Digital 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.</p>	<p>Modelling & Simulations Understand computers can represent real or fantasy situations. Use mouse, pen or finger to move and place items accurately on a screen to explore a simulation in other curriculum areas and talk about what happens. Use various online games (e.g. spelling and maths) to know that I.C.T can help. Control & Programming Give and follow algorithms, which include straight and turning commands, one at a time. Give an algorithm to complete a simple task (bee-bots/dB primary/iPads). Discuss and explore outcomes when algorithm is given in sequence. Key Vocab: Algorithm, program, predict, debug</p>	<p>Can programs/games to support them in their learning Can say if content is real or fantasy Can give and follow simple algorithms Can start to predict what an algorithm will do</p>
<p>Online Safety 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>Know SMART (Safe, Meeting, Accepting, Reliable, Tell) online safety rules. Know that some information is personal and should not be shared. Consider the environment when using ICT Save their own content in their own personal folder. Identify different devices that can go on the internet and those that do not. Identify what things count as personal information Identify when inappropriate content is accessed and act appropriately. (e.g. school policy, know how to minimise a screen if they see something inappropriate on a website and tell a trusted adult).</p>	<p>Can talk about what information is private and should not be shared. Know what to do if something upsetting or inappropriate does happen. Can say which devices do access the internet.</p>

YEAR 2

Into the woods

Rule Britannia! Let's Explore On Safari Blue Planet

Castles, Knights and Dragons

- 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

POS statements	Intended learning (outcome)	Evidence of learning
<p>Communication in the Digital World Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school</p>	<p>Text Editing and Multimedia Type with two hands with speed and accuracy. Format text (size, font, colour etc.). Select text and make simple changes including bold, italic and underline.</p> <p>Electronic Communication Author their own homepage on their own Learning Platform adding text and images. To understand that many different people can contribute to a Learning Platform or blog. Recognise and use an email address to send an (class) email. Find the @ key on a keyboards. Open and select to reply to a class email. To understand the different ways that messages can be sent; email, text, letter, phone, messaging, blogging. Begin to consider the advantages of each.</p> <p>Animation Create a sequence of images which together form a short animation that conveys meaning.</p> <p>Sound Music</p>	<p>Can edit text, changing colour, size and font.</p> <p>Can write an email with a subject, reply to an email and insert picture into an email.</p> <p>Can discuss the different methods of electronic communication and say why each one would be used.</p> <p>Can create a simple animation based on a theme.</p>

	<p>Use software to record, change and edit music and sounds.</p> <p>Key Vocab: edit, font, email, communication, reply, animate, Log in/on, Log out, Save, insert</p>	
<p>Exploring the Digital world Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school</p>	<p>Data Handling Produce simple graphs to show data (2simple)</p> <p>Data Logging Participate in whole class discussions about data logging and how it monitors live data (e.g. changing temperature)</p> <p>Research Use search engine to find a range of media, e.g. text, images. Enter text into a search engine and URL's in the address bar to find specific given websites. Understand that ICT can give rapid access to a wide variety of information and resources.</p>	<p>Can create a graph from given information.</p> <p>Can talk about how data has changed over time.</p> <p>Can use a search engine to find appropriate information</p>
<p>Shaping the Digital 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.</p>	<p>Modelling Simulations Understand computer representation allows the user to make choices and that different decisions produce different outcomes. Make choices in an adventure game or simulation. Talk about their use of simulations and be able to compare with reality. Discuss ways 'control technology' is used in the world (home electrical devices, traffic lights, cash points, level crossings etc.).</p> <p>Control & Programming Write and test simple programs using algorithms and use logical reasoning to predict the behaviour of simple programs. Debug a program to correct errors. Understand that precise and unambiguous instructions are essential when controlling electronic devices to achieve a specific outcome. Edit/refine a sequence of commands and discuss how to improve/change their sequence of commands.</p>	<p>Can discuss that games can have different outcome depending on the choices made.</p> <p>Can write and test simple algorithms.</p> <p>Can debug an algorithm to make it work successfully.</p> <p>Can predict the outcome of an algorithm.</p>

	<p>Generate a sequence of instructions including right angled turns to generate simple geometric shapes (oblongs/squares). Use the repeat (loop) and when (conditional statement) command within a series of instructions. (GD).</p> <p>Key Vocab: Algorithm, program, predict, debug</p>	
<p>Online Safety 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>Know SMART (Safe, Meeting, Accepting, Reliable, Tell) online safety rules. Know that some information is personal and should not be shared. Consider the environment when using ICT Save their own content in their own personal folder. Identify different devices that can go on the internet and those that do not. Identify what things count as personal information Identify when inappropriate content is accessed and act appropriately. (e.g. school policy, know how to minimise a screen if they see something inappropriate on a website and tell a trusted adult).</p>	<p>Can talk about what information is private and should not be shared.</p> <p>Can explain the Online Safety Rules.</p> <p>Can talk about some potential dangers of being online.</p> <p>Know what to do if something upsetting or inappropriate does happen.</p> <p>Can say which devices do access the internet.</p>