Computing: Foundation Stage

Early Learning Goals

There is no longer an Early Learning Goal for Computing/Technology

	Identifying Types of Technology	Using Technology	Using Technology Safely
FS1	To recognise technology. To use technological toys in my role play.	To program a beebot to move forwards and backwards. To use an i-Pad to take a photograph. To use a CD player to play music.	To understand how to stay safe online through stories.
Autumn Term	All About Me Name and recognise some technology that is used at school and at home such as computer, iPad, mobile phone. Continuous Provision Use technology appropriately through role play. Engage in role play with technological toys such as laptops, phones, washing machines, microwaves.		
Spring Term	Continuous Provision Use technology appropriately through role play. Engage in role play with technological toys.	Superheroes Make a Beebot move backwards and forwards. Begin to make a Beebot turn. Begin to make a Beebot move from one place to another.	People who Help Us: E-safety Listen to stories about staying safe online. Understand that it is important to stay safe online and begin to know some ways to stay safe online. If I am upset or worried about something then I can speak to an adult about something I have seen online.
Summer Term	Continuous Provision Use technology appropriately through role play. Engage in role play with technological toys.	Food Around the World Start and stop music on a CD player Make music louder and quieter. Minibeasts: Use an iPad to take a photograph.	

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Early Learning Goals

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	Identifying Types of Technology	Using Technology	Using Technology Safely
FS2	• Identify different types of technology.	• To use technology for a purpose. • To use a mouse to click and drag.	• To begin to develop an awareness of how to use technology safely.
Autumn Term	Talk about and name the different technologies used at school, e.g. computer, smartboard, visualiser, ipad, beebots	• Introduce clicking and dragging to improve mouse control. • Computer programs to support other areas of Learning, especially Literacy and Maths.	
Spring Term	• Talk about and name the different technologies used at home, e.g. computer, tablet, mobile phone, television	• Program Beebots to move forwards, backwards, turn and cancel program. • Use ipads to take photos. • My Modelling Toolkit – road safety	
Summer Term	• Talk about and name the different technologies used in the community, e.g. atm, cash registers in shops, etc	• Use computer painting program to draw sea creatures.	• Listen to the Tim and Tess e-safety stories. • Talk about how to keep safe online

Computing: Key Stage 1

	Algorithms	Create Programs	Reasoning	Using Technology	Use of IT beyond School	Safe Use
Year 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	Pupils should be taught to create and debug simple programs	Pupils should be taught to use logical reasoning to predict the behaviour of simple programs	Pupils should be taught to use technology purposefully to create, organise, store, manipulate and retrieve digital	Pupils should be taught to recognise common uses of information technology beyond school	Pupils should be taught to 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
Autumn Term	Write short algorithms and programs and predicting program outcomes • Tell the giant how to move. • Washing clothes instructions.			Using a computer to create and format text, before comparing to writing non-digitally • Developing mouse skills • Using a keyboard. • Developing keyboard skills • Lists. • Capital letters and full stops. • Enter key. Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally. How can we paint using a computer? • Using shape and line • Making careful choices. Introduce a range of shape tools • Select paint tools, colours, brush sizes and brush tools • Stickman pictures.	Recognising uses of technology in school • Technology around us • Using technology	Using a computer responsibly • Use computers safely within the school setting. • Why do we have rules in school? How do they help us? • Apply understanding to rules needed for using computer technology safely.

Spring Term	Writing short algorithms and programs for floor robots and predicting outcomes • Introduction to floor robots (beebots) • Directions. Think about the language used to give directions. Give and follow instructions • Forwards and backwards. Programme to move forwards and backwards. • Four directions. Use left and right commands, forwards and backwards. • Getting there. Decide what their program will do. • Routes. Plan routes before starting to write programs. Beebots to landmarks	Designing and programming the movement of a character on screen • Espresso Coding Lessons		Using a computer to create and format text, before comparing to writing non-digitally • Adding and removing text. Use the backspace key to remove text • Exploring the toolbar. Use the Caps Lock key to add capital letters. Explore buttons available on the toolbar • Making changes to text. Use the mouse cursor to select text. Explore different fonts • Explaining choices. Begin to use 'undo' to remove changes. Justify use of tools when changing text • Pencil or keyboard? Make comparisons • Type list of landmarks. • Create Postcards		
Summer Term				Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally • Design a flag/coat of arms. Using a computer to create and format text, before comparing to writing non-digitally • Type instructions for washing socks/how to cross a river		

Computing: Key Stage 1

	Algorithms	Create Programs	Reasoning	Using Technology	Use of IT beyond School	Safe Use
Year 2	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	Pupils should be taught to create and debug simple programs	Pupils should be taught to use logical reasoning to predict the behaviour of simple programs	Pupils should be taught to use technology purposefully to create, organise, store, manipulate and retrieve digital	Pupils should be taught to recognise common uses of information technology beyond school	Pupils should be taught to 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
Autumn Term		Creating and debugging programs • Follow and give instructions. • Same instructions but different order. How does the order affect outcomes? • Design, create and test mats and routes. • Design an algorithm to move robot around mat. • Break down a larger programming task, fix errors and understand this process as 'debugging'.	Using logical reasoning to make predictions • Follow a program step by step and identify what the outcome will be • Which Beebot journey will take the longest? Make reasoned decisions rather than guesses	Using a computer to create and format text, before comparing to writing non-digitally • Type a simple sentence with punctuation. • Create fact files – save file, retrieve file, insert picture, use return key, edit text.	Identifying IT and how its responsible use improves our world in school and beyond it. Understand that technologies can be used to communicate in a variety of ways. What is IT? IT in school IT in the world The benefits of IT Using IT in different ways	

Spring Term	Designing algorithms and programs that use events to trigger sequences of code. • Espresso Coding Lessons - Using the keyboard. - Red Riding Hood - Snow White - Up in the Air - Shark Attack					Using IT safely • List different uses of IT and talk about the different rules that might be associated with using them. Say how rules can help keep them safe when using IT • E-safety • Tim and Tess the Internet Game – NSPCC. • Being kind online. • Know where to go for help to stay safe – Twinkl safety pack.
Summer Term				Pictograms • Counting and comparing. Understand the importance of organising data effectively. • Enter the data manually and digitally • Make a pictogram on a computer • What is an attribute? Group objects by attribute. • Comparing people. Organise people using attributes to create a pictogram. • Presenting information. Learn that there are other ways to present data		Consider whether it's always OK to share data and when it is not OK. Give examples of why information should not be shared. How to report concerns.