What computing looks like in the EYFS

Characteristics of Effective Learning: Playing and exploring – children investigate and experience things and have a go; Active learning – children concentrate and keep trying if they encounter difficulties and enjoy achievements; Creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things. In addition, the prime area of learning PSE, CL and PD underpin and are an integral part of all areas of learning

The most relevant statements for computing are taken from the following areas of learning:

- Personal, Social and Emotional Development
- Physical Development
- Understanding the World
- Expressive Arts and Design

Intent: At Much Birch School, we develop the foundational skills of computing. We hope to develop safe, responsible and competent learners who can navigate and investigate using technology. For children to develop the knowledge and skills they need to keep themselves safe online and to prepare children for the pivotal role technology will play in their lives, both as children and adults.

Themes	**A1 – Let's discover- Autumn, Myself** **A2 – Stories and Celebrations**	**Sp1 – Transport** **Sp2 – Excellent Eggs**	**S1 – Changes** **S2 - In a land far away…**
Learning Overview	We will begin exploring a range of technological equipment and think about operating equipment in the provision e.g. CD player and playing on the interactive white board.	We will discuss the importance of internet safety and what we should do if we face an issue. We will play games to enhance others areas of learning, such as art and mathematics.	We will think about what technology we use at home and why it is useful and important. We will explore directions and basic coding using the bee-bots.
Computing Evidence on Tapestry We revisit knowledge and skills throughout the year	• To show resilience and perseverance in the face of a challenge. • To know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'. • To develop their small motor skills so that they can use a range of tools competently, safely and confidently • To explore, use and refine a variety of artistic effects to express their ideas and feelings • To discuss online safety and give reasons why we need to stay safe online – Smartie the Penguin • To develop digital literacy skills • To complete a simple program on electronic devices • To create content such as a video recording, stories, and/or draw a picture on screen • To begin to identify different IT in their home • To use the internet with adult supervision to find and retrieve information of interest to them		
	A range of technology is available within the classroom for children to access, both independently and with an adult. ○ Laptops – games / activities linked to the topic or maths being covered each week/information gathering ○ Play with remote control toys e.g. cars. ○ Play with battery operated toys ○ Operate humanbots (us) and Beebots - include a simple direction ○ Operate CD players ○ Interactive white boards – Phonics Play / Topmarks / Google Earth / Digimap./drawing ○ iPads – taking photographs, watching video clips, listening to music ○ Sound buttons – children can listen to a pr-recorded challenge or record their own answers. ○ Exploring old typewriters / computers / mechanical toys.		
Key vocabulary	Computer, laptop, iPad, camera, recording, mouse, programme, hardware, software, coding, technology		
During KS1, children will learn	• 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		

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	• 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.

Focus	Algorithms	Creating programs	Using technology	Use of IT beyond school	Safe use
Reception	• Develops digital literacy skills by being able to access, understand and interact with a range of technologies	• Completes a simple program on electronic devices	• Can create content such as a video recording, stories, and/or draw a picture on screen	• Begin to list different IT in their home	• Begin to give reasons why we need to stay safe online • Can use the internet with adult supervision to find and retrieve information of interest to them
Year 1	• Begin to clarify understanding about what algorithms are	• Begin to create their own way to use programmes to solve problems	• Begin to describe when technology can be used to solve problems	• Begin to recognise & describe about how new information technology could enhance their lives	• Begin to evaluate ways of staying safe, including online.

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Our computing journey through the year

Overview

Computing

-In Computing we learn about computers and modern technology, and how we use them.

-Computers and technology are a part of our everyday life, and so it is really important that we are confident with them.

-Computing is also important because it teaches us to solve problems and come up with new ideas.

Almost all of the early Computing learning can be found in all of the 7 EYFS areas of learning - we use computing cross curricular.





Equipment and Software

Hardware -

-Hardware is the name for the parts of a computer that we can see and touch. Hardware helps us to work computers. Examples of hardware include the mouse, keyboard, memory stick and monitor.



Program -

-A computer program makes a computer do different things.
-Computer programs give computers instructions.
-Examples include video games, Word, PowerPoint and your internet explorer (e.g. Google).



Recording and Playback Devices -

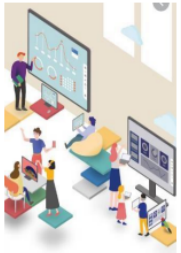
-Recording devices capture moments and sounds, which can then be played back. Examples include video cameras and voice recorders.
-Playback devices allow us to hear music after it is played. Examples include CD and DVD players, computers.



Key Vocabulary

Computer
Technology
Keyboard
Camera
Toy
Recording
Mouse
Program
Hardware

Technology we use



Technology in the classroom
Sub-Area: Technology

-When we are in school, technology is all around us!
-Explore the items below, and think about:

-What does this do? How does it work? What happens when I press...? What can I use this for?

Laptop Whiteboard Tablet Electronic Toys
Calculator Camera Bee-Bot Voice Recorder



Technology at home
Sub-Area: Technology

-Technology is also all around us at home!
-Using the same questions, explore these devices (safely and with the help of an adult):

Phone Television Hoover
Toys Music Player DVD Player Thermostat
Toys with moving/flashing parts

Basic Coding



-Coding is when we give instructions to a computer to do a task.

-When coding we have to use a language that the computer can understand. This is called code.

-We can use coding for programmable toys like Beebots to make them move in different directions.
-We can also use Human Beebots (our friends) and make up codes for them to follow!



Health and Safety

- Make sure an adult is with you when you use technology.
- Only adults should handle switches, wires and batteries.
- Keep food and drinks away from computers.
- Make sure that you are seated properly when using a computer.
- Make sure that adults can always see your screen.
- Do not talk to strangers when online.
- Keep computers away from table edges.