

Long Term Plan for Computing (2025/6 – Year A)

Fir - <https://www.barefootcomputing.org/earlyyears>

Elm, Ash and Oak - [Curriculum teaching resources \(teachcomputing.org\)](https://www.teachcomputing.org)

Unit Summaries and LTP		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Threshold Concepts		Code	Communicate	Code	Collect	Code	Collect
Fir – Nursery/ Reception		Barefoot Resources - Awesome Autumn Explore patterns in Garlands Galore, create a leaf labyrinth and make Pumpkin Soup using computational thinking skills.	Barefoot Resources - Boats Ahoy Different uses of boats, floating and sinking predictions, creating a good boat through exploring designs and role play.	Barefoot Resources – Springtime Make a Rabbit run, create Junk scarecrows and explore sequencing whilst planting seeds.	Barefoot Resources – Super Space Creating algorithms to direct a rocket through space and spotting patterns in pictures of aliens.	Barefoot Resources - People who help us Create patterns on a police car, guide a delivery person to their destination and design a uniform for a firefighter.	Barefoot Resources - Summer Fun Children explore their surroundings and get creative, take a journey and make a map, and discover seaside tangrams.
Unit Summaries and LTP		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		Computing systems and networks	Creating Media	Programming A	Data and Information	Creating Media	Programming B
Threshold Concepts		Connect	Communicate	Code	Collect	Communicate	Code
Elm – Y1/2	Year A	Technology around us (1.1) Recognising technology in school and using it responsibly.	Digital painting (1.2) Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Moving a robot (1.3) Writing short algorithms and programs for floor robots, and predicting program outcomes.	Grouping data (1.4) Exploring object labels, then using them to sort and group objects by properties.	Grouping data (1.5) Exploring object labels, then using them to sort and group objects by properties.	Grouping data (1.6) Exploring object labels, then using them to sort and group objects by properties.
	Year B	Y2s - Information technology around us (2.1) Identifying IT and how its responsible use improves our world in school and beyond.	Digital photography (2.2) Capturing and changing digital photographs for different purposes	Robot algorithms (2.3) Creating and debugging programs, and using logical reasoning to make predictions.	Pictograms (2.4) Collecting data in tally charts and using attributes to organise and present data on a computer.	Y2s -Making music (2.5) Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Programming quizzes (2.6) Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

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Threshold Concepts		Connect	Communicate	Code	Collect	Communicate	Code
Ash – 3/4	Year A	The internet (4.1) Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	Audio editing (4.2) Capturing and editing audio to produce a podcast, ensuring that copyright is considered	Sequencing sounds (3.3) Creating sequences in a block-based programming language to make music.	Branching databases (3.4) Use yes/no questions to gain an understanding of what attributes are and how to use them to sort groups of objects. Create on-screen branching databases..	Photo editing (4.5) Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	Repetition in shapes (4.3) Using a text-based programming language to explore count-controlled loops when drawing shapes.
	Year B	Connecting computers (3.1) Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	Stop-frame animation (3.2) Capturing and editing digital still images to produce a stop-frame animation that tells a story	Repetition in games (4.6) Using repetition in programming to explore count-controlled and infinite loops when modifying existing and creating new animations and games.	Data logging (4.4) Recognising how and why data is collected over time, before using data loggers to carry out an investigation	Desktop publishing (3.5) Creating documents by modifying text, images, and page layouts for a specified purpose	Events and actions in programs (3.6) Writing algorithms and programs that use a range of events to trigger sequences of actions.
Oak – Y5/6	Year A	Internet communication (6.1) Recognising how the WWW can be used to communicate and be searched to find information	Webpage creation (6.2) Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.	Variables in games (6.3) Exploring variables when designing and coding a game.	Introduction to spreadsheets (6.4) Answering questions by using spreadsheets to organise and calculate data.	3D modelling (6.5) Planning, developing, and evaluating 3D computer models of physical objects.	Sensing (6.6) Designing and coding a project that captures inputs from a physical device

	Year B	Sharing information (5.1) Identifying and exploring how information is shared between digital systems.	Video editing (5.2) Planning, capturing, and editing video to produce a short film.	Selection in physical computing (5.3) Exploring conditions and selection using a programmable microcontroller.	Flat-file databases (5.4) Using a database to order data and create charts to answer questions	Vector drawing (5.5) Creating images in a drawing program by using layers and groups of objects.	Selection in quizzes (5.6) Exploring selection in programming to design and code an interactive quiz.
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