Wylam First School Computing Curriculum 2020-2021

Wylam First School Ambition and Intent

To deliver a curriculum where the three key areas below are the 'golden thread' running through our whole school curriculum, preparing children for their next steps in education and beyond and developing key life skills for success.

Personal Development and Welfare	**STEM**	**Creative Development**
Physical strength and fitness	Science	Literacy
Mental health and well being	Technology	Humanities
PSHE/SMSC/RSE/Safety	Maths	Debate/Public speaking
Philosophy	Engineering	Presentation
Mindfulness	Computing	Media
Social Responsibility	Design Technology	Art
	Building sustainable futures	Music
	Environmental issues	Drama

Critical and creative thinking
Problem solving
Enterprise
Perseverance
Emotional Intelligence
Collaboration
Innovation
Resilience
Respect

*TCLT core values

Curriculum Intent

Our computing curriculum focuses on three skills of Computing; Code, Communicate and Collect. We believe that by exploring these three aspects, we will fully prepare our children for the next stage in their education and beyond as well as offering challenges through half termly and annual projects such as animation and film making, where children can demonstrate the many skills they have learned. The Computing curriculum allows children to explore computing on a cross-curricular level, ensuring that all three aspects of Wylam First School's 'Golden Thread' are covered in an exciting and engaging way, using the most up-to-date technologies. It has a strong focus on E-Safety, where children can develop a full understanding of how to be safe and respectful when online. This curriculum increases our children's cultural capital by introducing Code Club and Digital Leaders as extra-curricular activities as well as offering a broad range of experiences within computing sessions including access to new software and computing equipment through the Northumberland Grid for Learning SLA.

Y1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overarching topics	**Grand Designs**	**Magic Toybox**	**Funny Bones**	**Where the Wild Things Are**	**Wonderful Wylam**	**A Land Down Under**
Programs Equipment	Ipads J3e JIT paint School 360	Ipads - sock puppets	Chromebooks - internet searches	Ipads - beebots	Chromebooks - presenting information and adding pictures using google docs from the internet and Ipad Ipads - photographs	School 360 - J2 code
Term outcomes	Using the Ipads and School360 to create digital artwork	Use Ipad app to create simple animations with sock puppets	To use search engines to find websites to learn about the human body and play simple games	To code using beebots	To create a document which includes words and pictures	To program simple animations
E Safety	I know how to name and darte my digital work so that it belongs to me	**Jessy and Friends - Think You Know** Watching videos online	I know not to share personal information online	I know how to communicate safely online	I know how to search for images online	Keeping safe online - revision topic

		Playing games online				
Code		I can create sounds and control when they are heard. I can control an event by using taps on an ipad. Use sock puppets app to create short animations		I can program a toy to move forward, backwards and to turn. I can fix bugs to make my program work I can program my toy to move around a track and to reach certain objects		I know that an algorithm is a set of instructions To create simple algorithms To debug a code To understand how block coding works
Communicate	To log onto the school network To use Ipads correctly To create digital pictures of me using JIT paint To save and retrieve work		I can type using the chromebook keypad		I can create documents, adding text and pictures and can alter the font colour and letter size I can save my work and retrieve my work	
Collect	I can publish my own work		I can use search engines to find internet pages I can navigate internet pages to find information		I can create a document, adding text and downloading pictures from the internet or Ipad I can navigate web pages I can save, load and edit my work	I can use a simple database to sort information I can describe my own database of information I know what personal information I need to keep safe

Y2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overarching topics	**Fire and Ice**		**From Here to Africa**	**Exploring Air and Space**	**Seaside past and present**	**Saving our Seaside**
Programs Equipment	Chromebooks Ipads - school 360 - JIT animations	Ipads Bluebots JIT code - Rugged rockets Ipad - A.L.E.X	Chromebooks School 360 J2e Data	Chromebooks - google docs, google slides	Chromebooks Ipads - garageband Microbit https://microbit.org/projects/make-it-code-it/	Microbit https://microbit.org/projects/make-it-code-it/
Term outcomes	To create short animations To conduct research	To program Bluebots for a purpose	To complete simple databases and organising data	Conduct internet searches to create information texts and presentations Create music using garage band app Program microbit to play tune - Jukebox	Conduct internet searches Create music using garage band app Program microbit to play tune - Jukebox	Using microbit - create: ● Name tag ● Compass ● Save the Sea Turtle
E Safety	Using keywords to safely search for information online	**Think you know** - Lee and Kim	I understand what a digital footprint is	I can rate and review websites	I understand how to judge the suitability of a website/app and that websites/apps have age restrictions	Be kind online
Code		I know what an algorithm is I can debug a program I can use key presses/taps on an ipad to control events				I know what an algorithm is I can debug a program I can use key presses/taps on an ipad to control events

Communicate	Create short animations of the Fire of London		I can save, edit, refine and publish my work	I can use the tools to create a slides presentation, including adding images and text I can save, edit, refine and publish my work		
Collect	Use web pages to research key facts about the Fire of London		I can use simple a simple database to sort information	I can research topics using internet searches	I can research topics using internet searches	I can research topics using internet searches

Y3	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Overarching topics	**Stone Age**	**Let There Be Light**	**South America**	**Ancient Greeks - Olympics**	**Egyptians**	
Term outcomes	Create database of rocks and soils	Programing Microbits	Coding using different programs	Send, receive and organise emails	To create animations and simple films	
Programs Equipment	Chromebooks Google docs Google sheets	Microbit https://microbit.org/projects/make-it-code-it/ Here comes the sun Sunbeams Sunlight sensor	Chromebooks School 360 - J2e code (Y3/4) Scratch Ozobots Spheros	Google mail	Ipads - Imovie Book creator Litfilm Fest Egyptian Sports Academy	
E Safety	What is cyberbullying?	Think You Know - Play, Like, Share	Keep it to yourself	Emailing	To buy or not to buy	Online communication
Code		I can begin to	I can begin to use			

		specify conditions to trigger events I can begin to specify conditions to trigger events.	specified screen coordinates to control movement I can begin to set the appearance of objects and create a sequence of changes.			
Communicate				I can write emails for a purpose, editing and refining my work.	I can begin to use some of the advanced features of apps and devices in order to communicate ideas, work and messages. I can create simple animations I can make and edit a simple film; including title scenes.	
Collect	Understand that data can be organised Sort and organise information Search a ready made database to answer questions Create and insert tables into google docs Use google sheets to create a database with filters				I can save, edit, load work. I can edit, refine and publish work.	

Y4	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Overarching topics	**Ancient Rome and its Legacy**	**Wild World Flood, famine, Earthquakes and eruptions**	**World War 2 - Heritage Project The Battle of Britain**		**Tyne Valley and the Wider World**	**Building Bridges**

Program Equipment	Chromebooks Slides Databases and spreadsheets - Google sheets	Lit Film Fest Ipads	Literacy shed - The Blitz, Beyond The Lines Ipads - Imovie Litfilm fest - War Story	Scratch Ozobots Spheros	Microbit	Chromebooks J2e measure
Term outcomes	Use google slide to create presentations about the Romans To read and create database to collect and organise information	To film a public speech about the impact of climate change	Create a movie trailer for WW2 - how war affects the lives of those involved	Use different coding devices/ software: Scratch,, Ozobots, Spheros	Explore the advanced features of microbit - creating data loggers (temperature etc)	Create detailed designs for Bridges (CAD)
E Safety	Cyberbullying	Copycats	Super searchers	The online community	Too much information	**Think you know** - Band Runner
Code				I can use specified screen coordinates to control movement I can create and edit sounds.	I can set the appearance of objects and sequence changes. I can specify conditions to trigger events.. I can control a variety of variables https://microbit.org/projects/make-it-code-it/?filters=4109fed9-5ef2-4afd-8b19-cdae57f27bda	
Communicate	I can create text, images and sounds for a specific audience using Google Slides	To write a persuasive argument To develop public	I can plan and create animation using a variety of medium (clay, toys, drawing)			Use J2e measure - school 360 to create bridge design and communicate plans

		speaking	I can use the advanced features of apps and devices in order to communicate ideas and work			
Collect	I can devise and construct databases in J2Data I can use spreadsheets in Google Sheets		I can find and record information via a variety of sources.			