Forefield Junior School is a P.R.O.U.D school built on **Passion** and **Respect**, where **Opportunities** can be seized by **Unique** and **Determined** learners.

PROUD to be FOREFIELD

Subject Leader Report: Computing

At Forefield Junior School, we are committed to ensuring our children leave us equipped with the knowledge, skills, understanding and confidence they will need to navigate through a rapidly developing digital world. At our school, we are privileged to have a set time each week to complete our Computing lessons: either 45 minutes or an hour a week. This dedicated time each week ensures our children are exposed to a wide range of skills. Importantly, the skills the children are developing in Computing lessons is also embedded throughout the curriculum elsewhere as children are using technology to enhance their learning in other subjects.

Our curriculum has been designed using a wide range of resources to fully impact on all aspects of learning. This includes a Computing Suite, 45 iPads (so more than one class can have them at a time) and last year, we had the addition of micro::bits at school as well as Everton in the Community bringing Sphero robots. As well as the physical computing resources we have, we also have apps including Lightbot, Switch Zoo, Strip Design and Mr Jump. In addition, we also have subscriptions to Lexia, Spag.com and TTRockstars to support learning at home using technology.

E-Safety

Across the curriculum, e-safety is taught at an age-appropriate level to all pupils both through the digital literacy element of our Computing curriculum, but also in PSHE too. In Computing, the children get a focussed look at a wide range of online safety issues including sharing positive messages, image sharing, online bullying, blocking and reporting issues and also how to maintain a healthy lifestyle with technology as part of this. In PSHE, similar themes are focussed on but sometimes with a different perspective or perhaps a focus on one individual theme. Therefore, the children at Forefield are taught how to keep themselves safe through focussed messaging. At the same time, e-safety is not something that is taught in isolation, as the children are frequently reminded of the importance of keeping their personal information safe and where a lesson may lend itself to an e-safety discussion, teachers will always take the opportunity to do this with their class. Frequently, our weekly assemblies also have a theme of safety which quite often includes an element of keeping safe online.

Throughout the curriculum, the e-safety messages taught are always at an appropriate level, as it is important that the children are confident and alert when using the internet – not scared. At Forefield, we are passionate about equipping our children with the knowledge and skills they will need to grow up, live and work in a rapidly developing digital world. Therefore, it is paramount that our children have the knowledge of how to keep themselves safe and should feel confident when using the internet that they are using it sensible and in a safe way, and if they find themselves in an uncomfortable situation, they have the knowledge and tools to be able to fix it.

Additionally, to support families at home, we still have our subscription to monthly newsletters from Knowsley City Learning Centre which provide the most up to date advice and alterations they can make to their children's account or device settings at home, to ensure children are safe online at home.

Pupil Guarantee

In addition to the curriculum, our Pupil Guarantee aims to ensure that ***every*** child finds their passion through:

- Regular experiences of the Arts - *on stage, as an audience and as an artist/musician, enjoying a range of styles and influences;*
- Encountering a variety of sporting activities - *competing at individual and team level, and pursuing this interest beyond the school or just for fun;*
- Developing a curiosity about the world around them - *through science, nature or learning about other cultures, and discovering a sense of wonder;*
- Making healthy lifestyle choices - *knowing how to eat well, exercise and promote their own well-being;*
- Extending their learning through visits and visitors - *opening their eyes to the world beyond the school walls, culminating in a residential visit to Ambleside in Year 6.*

From each experience, pupils can gain the strength to know that it is OK to be different and to encourage and appreciate the success of their friends.

Our Pupil Guarantee is committed to every child achieving the very best they can, and technology is intertwined throughout this. Every day at school, our children are given the opportunity to gain a deeper curiosity about the world and alongside this we are equipping them to be critical thinkers. Technology is helping throughout the curriculum to achieve this as we are able to use apps such as Google Earth in year 4 or Google Lens in year 5. As a result, our children are experiencing the world digitally which is exposing them to job opportunities they otherwise would not have been aware of. Importantly, we have worked recently to tailor the Computing curriculum to the children's curriculum in other subjects or their interests. We have continued to build on Endangered Animals in Science through using Microsoft Office and PowerPoint to share work in other ways and this year we have started a new topic in Year 6 of Spreadsheets. After meeting and working closely with the Business Studies and Computing Head at Chesterfield High School, I was advised to implement a 'budget' into a Spreadsheets topic as this would advantage our children when they go to high school as the skills they will learn will be a good springboard going forwards. Therefore, I have planned and resourced a topic based on the annual year 6 trip to Ambleside – as part of this, the children are working on adding up the individual costs of things like coaches, the hostel, food and activities to reach a grand total. The children have thoroughly enjoyed this and it has helped them to gain a new perspective on all of the planning that goes into this trip.

Here at Forefield, children with SEND are supported through the use of technology in a variety of ways. At times it is used to create a calmer atmosphere, produce work in a different way or to further research or enhance their learning.

Bespoke Curriculum

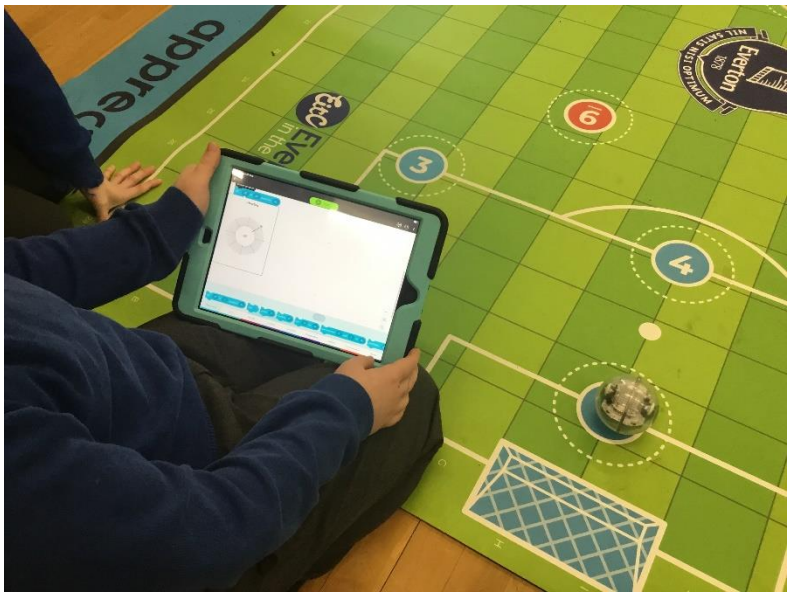
Last year, I began to create a bespoke curriculum here at Forefield. We had had some successes with the Knowsley CLC scheme in the lower juniors, and the Teach Computing scheme had some successes in the upper juniors. Therefore, I reviewed the positives and negatives of the new schemes, where our curriculum was up to, and what needed to be implemented and then began from there to make some more changes.

FJS Computing Map				
	YEAR 3	YEAR 4	YEAR 5	YEAR 6
AUTUMN 1	My Online Life – E-Safety Book Creator	My Online Life – E-Safety Book Creator	My Online Life – E-Safety Book Creator	My Online Life – E-Safety Book Creator
AUTUMN 2	Online Detectives – Advanced Internet Searching Book Creator	Endangered Animals – Producing Publications School shared Drive	Video Production iPads	Web Page Production School Shared Drive
SPRING 1	Be Digitally Awesome – Microsoft Office Skills School Shared Drive	Hour of Code – Writing Algorithms to Animate Book Creator	EITC – Computer Science Project	EITC – Computer Science Project
SPRING 2		Fake or Real – Advanced Internet Searching Book Creator	Making AR Games Book Creator	Data and Information – Introduction to Spreadsheets School Shared Drive
SUMMER 1	Dancing Robot – Scratch Jr Book Creator	Stop Motion Animation based on The Romans iPads	MICRO BITS PROJECT School Shared Drive	Computer Science Project – Build on Micro Bits work in Y5. School Shared Drive
SUMMER 2	Programming with Robots – Creating Algorithms Book Creator	Games Designer – Create a game using Scratch School Shared Drive	Microsoft Office – Touching on Computer Networks School Shared Drive	
	DIGITAL LITERACY	INFORMATION TECHNOLOGY	COMPUTER SCIENCE	

This is how our Computing curriculum currently looks, which has influences from various sources. However, the digital world is ever-changing, as is the curriculum. Therefore, this is still a working document, and will be in order to ensure the children are exposed to a modern, diverse, up-to-date curriculum.

Everton in the Community

After the successes of Everton in the Community in previous years, I was able to organise them to come in again. The opportunity for the children to work with live Sphero robots to create some block codes is excellent and a rarity. Again, Everton brought mats, cones and the robots and delivered excellent lessons with exemplary vocabulary and discussions with the children. Frequently in the lessons, the children are brought together to find a solution to a problem which develops their critical thinking skills in Computing.



British Values

Our Computing curriculum reinforces the rule of law through e-safety objectives (e.g. copyright of digital imaging) and the acceptable use policy. Individual liberty is addressed when discussing social media and appropriate behaviour online. Peer assessment and open discussion facilitate opportunities to demonstrate mutual respect and tolerance. The children are also taught the importance of being respectful online, and all must sign our school's acceptable use policy at the beginning of the year.

Pupil Voice & Work Sampling

Computing is a favoured subject here at Forefield: one that the children look forward to each week. The younger children enjoy opportunities to use technology they may not have used at the infants, whereas the older children enjoy having discussions about their work and are enjoying the more physical side of computing.

Challenge 6

WHERE AM I?

1. Which country am I in?
India
2. Which continent is that country in?
Asia
3. When did the Taj Mahal open?
1632

I am stood in front of the Taj Mahal!

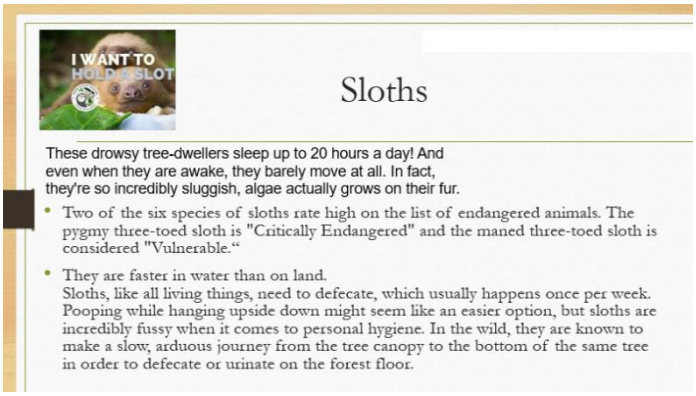
Improving internet searching skills in year 3 through asking the children to think about their questioning and what they are typing into search engines. The children also learn that Google will always try and be a step ahead of you, and will try and guess what you are going to type.

THE GREAT FIRE OF LONDON

- The great fire of London happened in September 1666
- The fire started at Thomas Farriner's bakehouse on Fish Lane in the city of London.
- The fire destroyed 13,200 houses.
- The site were the fire started is now marked by a 2022-foot monument.

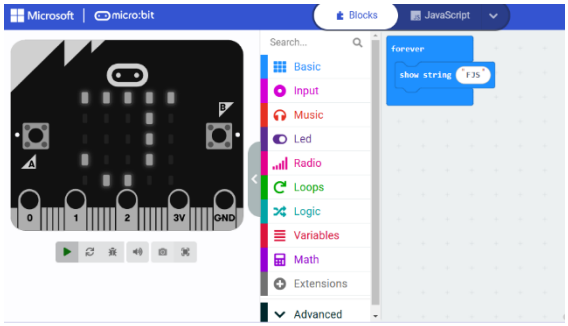
The Astonishing Arctic

The Arctic is located at the northernmost part of our planet. Despite the freezing-cold temperatures, approximately four million people call this wintery wonderful home. The Arctic is home to It uses its thick, white fur to stay warm in the cold Arctic and to camouflage itself in the snowy Arctic tundra. Lots of wonderful wildlife, including **polar bears**, Arctic foxes, walruses, seals and **whales**! In the far north of Sweden, you can visit and even stay in a hotel entirely made of ice! Greenland It uses its thick, white fur to stay warm in the cold Arctic and to camouflage itself in the snowy Arctic tundra. Grey whales travel a whopping 12,000 miles to and from The Arctic each year in search of food. The Arctic Ocean is the world's smallest ocean, only comprising 5.4 million square miles which is a far cry from the Atlantic Ocean's 41.1 million square miles. The Arctic consists of the Arctic Ocean and parts of Greenland, Iceland, Norway, Sweden, Finland, Russia, the USA (Alaska) and Canada



Enhancing Microsoft Office Skills in Year 4 and combining knowledge from Science.

Year 5 children thoroughly enjoyed working with micro::bits in their computer science lessons this year.



The children connected their micro::bits into the computers via a USB cable. They then programmed the micro::bit using Microsoft Make Code, checked the programme using the digital micro::bit – then debugged if necessary. Once the children were happy, they downloaded the code onto their micro::bit and could use it.

WATERFALLS

MEANDERS

THE RIVER SITING

OXBOWS

LAKES

Rivers are little streams of water all around the world. A river has different things attached to it, one is a Meander. Meanders are where the river turns and bends every time the water hits the edge of the ground. Sometimes the edge of the ground is hollow so if you would put something with maybe even a little bit of weight it might fall into the rapid streams. An Oxbow lake. These are where a lake forms a little round pond-like water site. A Waterfall is where the stream of water is coming down a hill or just a straight line and then drops off the cliff, like a water bottle dropping.

Year 6 attempted Web Design this year, however used Microsoft Office as the program to improve Microsoft Office skills at the same time.

Meanders + oxbow lakes

(rapid rivers)

Meanders + Oxbow

A meander is formed by water hitting the side of a lake to make a kind of S shape.

Working Closely with FCIS

Looking ahead, I am planning on working much more closely with Forefield Infants in order to make the progression of skills much stronger. I have been working closely with their Computing subject leader and I have noticed changes in the equipment they use. Therefore, we are looking forward to working together to ensure skills, digital literacy skills in particular, are taught at an appropriate level and we can build on progress here at the juniors.

Next Steps

- To embed the finalised Computing curriculum so that each year group has a good variety of topics which meet the National Curriculum.
- To ensure topics in each year group progress whilst also providing opportunities to recap knowledge and skills.
- To finalise assessment techniques bespoke to each topic.

Thank you for reading about the wonderful progress we are making and continue to make, in Computing at Forefield Junior School.

Miss E Berry