



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. With a weekly lesson in computing, alongside lots of digital work in other areas of the curriculum, our children have a wide range of opportunities to further improve and enhance their digital skills.

Resources

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) micro:bits alongside *Microsoft MakeCode* software and Everton in the Community bringing Sphero Robots for computer science teaching in year 6. As well as the amazing physical computing opportunities available, we also have a plethora of apps on our iPads and Computers including Lightbot, Switch Zoo, Scratch and Scratch JR, Strip Design, AR Maker, Angry Birds AR and Mr Jump. In addition, we also have subscriptions to Lexia, Spag.com, Maths.co.uk, Active Learn and TTRockstars to support learning at home using technology. Children are taught to use different apps at school, to ensure everything is up and running before the children go home.

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, and 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. As part of lessons, children are given the opportunity to have lots of discussions, either about a specific scenario or about an issue they may have come across which they would like to share. Lessons also include a mixture of scenarios, videos and points for discussion in which children can create their own rules. In year 6, our children are given the opportunity to solve an 'Online Safety Dilemma' through a video production!

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 in a sensible and safe way, and if they find themselves in an uncomfortable situation, they have the knowledge and skills 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. This is shared with families every month via Seesaw.

Transition to Kapow

As it states on our school website, we have made the decision this academic year to move towards a Computing scheme in the form of Kapow Computing.

Although we have created a fantastic Computing curriculum for our children here at Forefield, and the opportunities our children have had are amazing, it is important that we are always keeping up with the most up-to-date changes in technology. As there are changes in new technologies so often in these modern times, we have come to the conclusion that a scheme is the best way that we can ensure we are always teaching the

most current Computing topics, issues and developments. For example, a new AI themed topic is coming to year 6 next year!

We are so excited by the opportunities Kapow Computing is going to bring to our curriculum. Already, the lessons are looking amazing, and all staff are very much looking forward to getting stuck into it all very soon!

To make the change to Kapow, it has been recommended that we follow some transition units. By doing this, we will ensure our children have the right skills and knowledge ready to begin their next year's Kapow units. For more information on this, please visit our school website Computing curriculum page.

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. At Forefield Juniors, our children are provided with various opportunities each week to use a digital device to help them gain a deeper curiosity about the world around them as well as strengthening their critical thinking skills, when analysing different scenarios and situations.

Technology is embedded throughout the curriculum to achieve this as we are able to use apps such as Google Earth in year 4 to find places around the world we would not have seen before. Or, programming a robot to move around the dance studio and working together as a team to problem solve when there appears to be a 'bug' in the algorithm.

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. Throughout the Computing curriculum, children are also exposed to different ways of producing a publication including images, videos, documents, spreadsheets and slides.

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. In year 6, the children created a spreadsheet to have a go at managing a budget in working out the costs for our prestigious annual trip to Ambleside! The children were amazed at how much planning and effort goes into the trip, and were delighted to be involved. In addition, our year 5 pupils created amazing brochures about different places in the Americas, linking to their Geography topic at the time.

Here at Forefield, children with SEND are supported through the use of technology in a variety of ways. At times, technology is used to create a calmer atmosphere, produce work in a different way, or to further research or enhance their learning. In addition, staff are able to use technology to better support the learning of children with SEND through recording work in different ways, including photographs and videos.

Bespoke Curriculum

As mentioned earlier, we are looking at moving towards Kapow computing in this academic year 2025-26, with a view to start the scheme from September '26. From now until then, we will be working through Kapow's 'catch-up units' to ensure our children have the skills they need to start their following year group's unit in September.

Last year, we continued with our bespoke curriculum in Computing.

FJS Computing Map				
	YEAR 3	YEAR 4	YEAR 5	YEAR 6
AUTUMN 1	My Online Life – E-Safety	My Online Life – E-Safety	My Online Life – E-Safety	My Online Life – E-Safety
AUTUMN 2	Online Detectives – Advanced Internet Searching	Endangered Animals – Producing Publications	Video Production	Data and Information – Introduction to Spreadsheets
SPRING 1	Be Digitally Awesome – Microsoft Office Skills	Stop Motion Animation based on The Romans	Making AR Games	EITC – Computer Science Project
SPRING 2		Hour of Code – Writing Algorithms to Animate	EITC – Computer Science Project	Code Cracking with Alan Turing
SUMMER 1	Dancing Robot – Scratch Jr	Games Designer – Create a game using Scratch	Producing a brochure in Microsoft Word	Variables project
SUMMER 2	Programming with Robots – Creating Algorithms *Under Review*	Fake or Real – Advanced Internet Searching	Introduction to micro:bits with Make Code	
DIGITAL LITERACY		INFORMATION TECHNOLOGY		COMPUTER SCIENCE

Our bespoke curriculum is something we are very proud of here at Forefield Juniors. This curriculum has taken inspiration from Knowsley, Teach Computing and some units from Barefoot Computing. However, with it being a mixture of units from various sources, which we have put our own 'Forefield' spark to, ensuring every area from the curriculum is covered to the best it can be, that every unit progresses naturally with skills always being recapped, and ensuring it is always keeping up to date with the latest developments in Computing, Technology and Science was becoming a task that we felt could be done better by an external scheme. Through extensive research, we have found a scheme which is led by experts in Computing and is *always* being updated. Therefore, Kapow Computing is able to do all of this for us: our children will still be able to uncover the computer science origins that were completed by Alan Turing at Bletchley Park, whilst also building their programming skills in Scratch. Our children will have the opportunity to create photographs, videos and compose music, whilst also having many opportunities to discuss their ideas and enhance their teamwork skills. Although what we have is amazing, Kapow is going to be even better! We are so excited to see the positive impact on our computing curriculum, and most importantly, Kapow will ensure our children leave Forefield strong, confident, digitally literate learners with a multitude of skills both for the digital world and the real world!

Everton in the Community

After the successes of Everton in the Community in previous years, we were delighted to secure them for another year! Programming a Sphero robot and working in a team to bring the algorithm to life is an amazing opportunity for pupils to have at school and is something the children in years 5 and 6 look forward to every year. Jade, from Everton in the Community, brought the robots, iPads, mats and cones and delivered excellent lessons using exemplary vocabulary in discussions with the children. Again, the children are frequently encouraged to work together, listen to each other's ideas in order to debug an algorithm.





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. Furthermore, we have lots of discussions during Computing lessons about showing respect and tolerance online and how a message can be perceived in a way it may not have been intended and how it could offend, even if that wasn't the original intention. We also talk about how putting a message or other form of publication online including a picture or video can never be fully deleted, as others may have copied it before you deleted it, and the implications that this can have. 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.

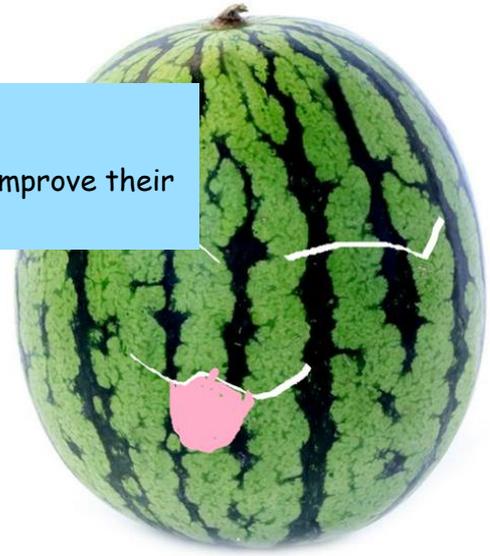
Pupil Voice & Work Sampling

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.



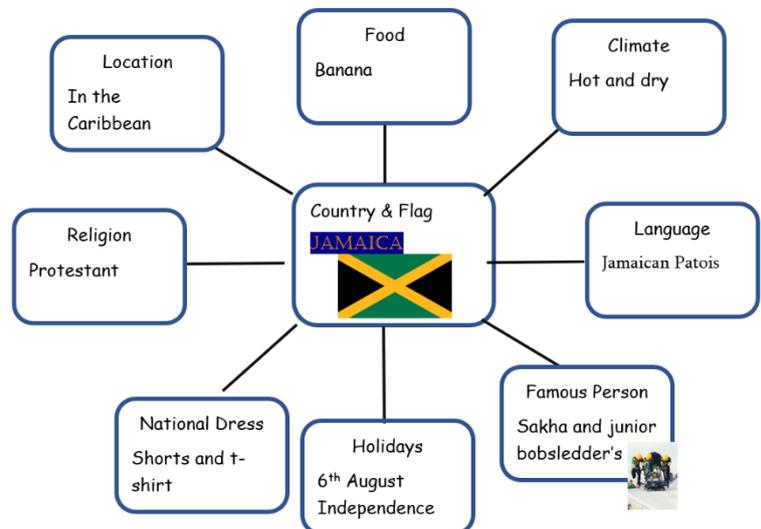
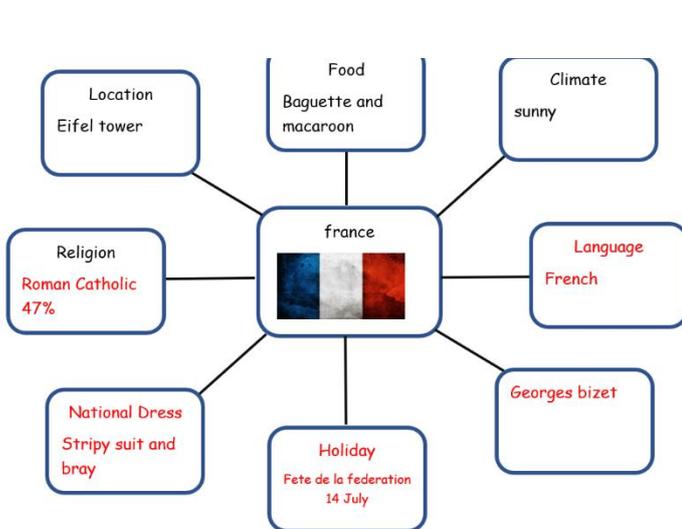
Building Microsoft Office Skills in Year 3

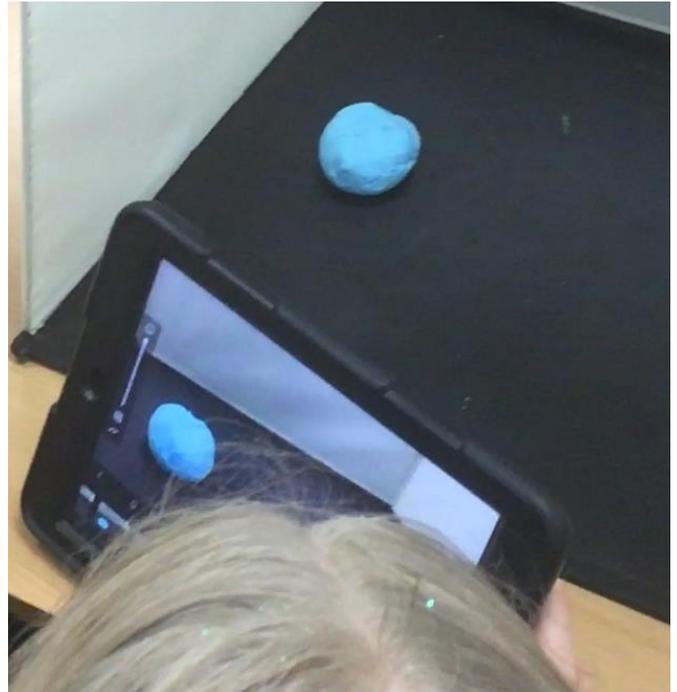
The children learn how to edit and change font, add images as well as improve their internet researching skills.



Editing images in Year 3

Children recap the rules of copyright and practise manipulating images. This is also a good opportunity to teach the children why we do not believe everything we read online.





Stop Motion Animation in Year 4

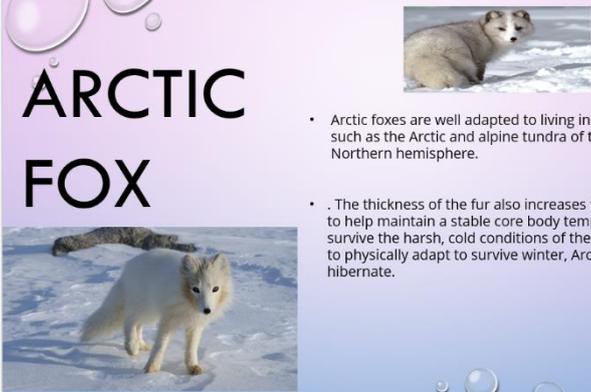
Children work in small groups using Stop Motion technology to create short clips.



ENDANGERED ANIMALS



ARCTIC FOX



- Arctic foxes are well adapted to living in icy-cold environments, such as the Arctic and alpine tundra of the polar region in the Northern hemisphere.
- The thickness of the fur also increases for the winter season to help maintain a stable core body temperature and also survive the harsh, cold conditions of the Arctic. With the ability to physically adapt to survive winter, Arctic foxes never have to hibernate.

PowerPoint Creation in Year 4

Building on skills learnt in Year 3, children progress to making a PowerPoint presentation which relates to their Endangered Animals topic in Science.



Video Production in Year 5

Children work in small groups building on their filming skills from Year 4 to create short movies. Children need to work in teams to decide the theme of their video, plan it using a storyboard and then film it.

SOUTH AMERICA

The Amazon River basin contains the world's largest area of tropical rainforest. Many types of trees are found there. However, people are rapidly destroying large areas of rainforest. This is mainly because settlers are trying to use the land for agriculture or to build roads.

Most South Americans speak Spanish or Portuguese. Many native languages, such as Quechua and Aymara, are also spoken. In some areas people speak English, French or Dutch.

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South America, the fourth largest continent, has the world's largest rainforest (Amazon) and river (Amazon River). It's home to unique animals like llamas and vicuñas and land like the Angel Falls, the world's highest waterfall.

South America weather

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temp	28	27	26	25	24	23	22	21	20	19	18	17
Precip	100	100	100	100	100	100	100	100	100	100	100	100

The fourth biggest continent in the world.

Year 5 Brochure Production

Last year, we introduced Brochures into year 5 to ensure children are always revisiting transferrable, Microsoft Office skills. The children learned how to set out images and text boxes, alongside changing backgrounds and editing the font and colour of text within a text box.

Accommodation - YHA AMBLESIDE

Rooms		Meals	
No. of rooms:	40	No. of meal times:	12
Cost per person per room:	£103.36	No. of Evening meal times:	4
		No. of Breakfasts:	4
		No. of Packed Lunches	4
		Cost per person for evening meals :	£41.66
		Cost per person for breakfasts :	£24.20
		Cost per person for packed lunches :	£20.83
All numbers based on 120 participants:			
90 children			
30 adults			

Coaches

Coach to and from FJS		Coach to and from activities in Ambleside	
No. of journeys:	£2.00	No. of days required:	3
cost per journey;	1404	Cost per day:	575
		Total cost:	

Year 6 - Ambleside

The children are given an insight into how much planning and organising goes into our annual trip to Ambleside! In year 6, children are given the opportunity to look into the costs of Ambleside, organise the budget and see how much it *really* costs! As a disclaimer, these prices are based on previous years and have been altered to better suit the task.

Working Closely with FCIS

Looking ahead, I'd like to continue the good relationships I have with staff and the Computing subject leader over at Forefield Infants. We have been working to ensure strong progression between both schools and as we transition to a Kapow Computing scheme, I'd like to maintain good communication so I can ensure the children are building skills in the infants that will help when they arrive to us in year 3.

Next Steps

- To support staff in a transition to Kapow Computing
- To ensure any new software is up and running for the new Kapow Computing scheme
- To finalise assessment techniques bespoke to each topic within the new scheme

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

Miss E Berry