Subject Leader Report – COMPUTING

SUBJECT LEADER: Amie Dobbs

Subject Overview:

Our computing curriculum has been developed to equip pupils with the foundation skills, knowledge and understanding of computing they will need for the rest of their lives. Through the new programme of study for computing, they learn how computers and computer systems work, design and build programs, develop their ideas using technology and use IT skills to create a range of content. Computing in taught in mixed ability classes and work is differentiated to support and challenge all children. Children have opportunities to work individually, in paired work and within small groups within Computing lessons and also when using ICT to support and enhance other subjects.

As opportunities in technology-based companies increase, it becomes ever more important that the children are fully computer literate when they leave school. Computers are now part of everyday life. For most of us, technology is essential to our lives, at home and at work. 'Computational thinking' is a skill that children must be taught if they are to be ready for the workplace and able to participate effectively in this 'digital world'.

In addition, we have 8 Digital Leaders from years 4-6, who are all working at greater depth in Computing. Their jobs include increasing the awareness of Online Safety and promoting the positive use of ICT across school, supporting others in class and younger pupils with Computing, testing out new software first to become experts and support others in class.

Fundamental Great British Values:

At Primrose Hill, we understand clearly our responsibility in preparing children for their next stage of education and for the opportunities, responsibilities and experiences of later life, laying the foundations so that they can take their place successfully in modern British society.
We promote a respect for and understanding of different faiths, cultures and lifestyles through learning how to be a responsible digital citizen and communicating safely and responsibly online. Technology provides many opportunities for the children at Primrose Hill to experience and learn about different countries and cultures all around the world. When doing so we teach the children to be respectful and tolerant of others. The need for rules when using technology is vital and that laws exist to keep people safe online. The spiritual, moral, social and cultural development of each child is central to everything that we do as a school and central to our vision of "Together we will make a difference". This is evidenced through our inclusive teaching and learning, our inclusive environment and through the many opportunities provided for our children to understand democracy, law, liberty, mutual respect and tolerance.

Planning:

ICT/Computing is taught through the thematic approach when possible. Our curriculum is carefully planned to engage and excite all of our learners – ensuring children are taught specific knowledge and skills as stipulated in The National Curriculum 2014. Our phase maps detail the units or areas of ICT/Computing covered by each year group every term. These have been arranged to maximise cross-curricular links with other subjects and allow for progression of skills across the key stages. Opportunities for children to use and apply ICT skills to support and enhance other subjects are maximised and varied. These include presenting their work using pictures, sound and

animations, using movie maker to show the progression of a DT project and recording and editing sound clips to retell a story.

Assessment:

Ongoing assessment and review is fundamental to everyday teaching at Primrose Hill, teachers are constantly making judgements with regards to attainment in lessons and altering provision accordingly. Intervention within the lesson is crucial in ensuring children are prepared to learn; misconceptions quickly identified and rectified. Throughout any ICT/Computing topic the pupils are assessed against the key skills taught and their knowledge and understanding of the subject. This is reported termly on grade cards to parents and in their end of year report, stating whether they are working at age related expectations, working at greater depth or working towards the expected standard. Brick wall trackers are used to monitor the progress of all cohorts as well as groups of pupils including pupil premium and AGD. End of year data is analysed, any trends or areas of development are identified and this is used to inform the subject development plan.

Collecting evidence:

Evidence is collected throughout the year and in a variety of different ways. These include planning checks, pupil interviews, staff discussion and looking at children's work. Although pupils do not have books for ICT/Computing, there are folders on the server specifically for each year group to save any work which is monitor. In addition to this, the school blog is monitored and examples of ICT/Computing lessons, completed work and ICT skills being used to support the teaching and learning of other subjects is recorded and gathered. Photographs and videos are also collected to show examples of children developing and using key ICT skills and knowledge.

Reception children programming the Beebots.

Year 2 using Purple Mash programming game 'Fun with Fish' which involves selecting the correct blocks create a code to move the fish in different directions.

Year 6 work using Kodu to program. The game involves sequence, selection, repetition and variables with different forms of input and output.

Enrichment opportunities:

The Computing curriculum is greatly enhanced through the wealth of resources pupils have access to, supporting and stimulating their learning. Every class has a set 15 iPads, all classes have access to class sets of laptops and in KS1 and EYFS there are sets of Beebots which are all used regularly. From September 2019 pupils in year 5 and 6 will have 1:1 iPads, increasing their opportunities to develop IT skills and use these in other subjects. Due to our personalised and cross-curricular approach, the children are given ample opportunities to use and develop their ICT skills in context.

A weekly coding afterschool club has been running for several years. It is led by specialists and allows pupils to further develop their programming skills and use different software such as Raspberry Pi's and Kano Computer Kits.

Every year, as a school we have an online safety week as part in Safer Internet Day. This year the Digital Leaders led an assembly to introduce the week and then all classes took part in different lessons and activities, covering different aspects of online safety. They also ran a competition for children to create an online safety poster which was very popular. These are now displayed around school.

The Digital Leaders were invited and took part in Apple Teacher staff training. They have also started to complete to badges which will mean they are Apple Teachers. As part of our regular meetings, the Digital Leaders are given the opportunity to try out new resources and become experts in these.

This year a group of year 6 children entered the BT National Tech Factor competition, creating an iMovie stating how they would use the prize money. The children were successful, winning the top prize of £5000. The money has been invested in new VR and AR hardware and software for the school along with training for staff, allowing more opportunities for all children to enhance their IT skills in a variety of ways with meaningful cross-curricular links.

Targets:

Monitor greater depth pupils, gender variations within greater depth and provision being made for these pupils.	• The number of pupils working at greater depth has increased or stayed at the same percentage in each year group. • More girls are now working at greater depth. • There are now more girls working as a Digital Leaders.
Continue to develop the role of digital leaders within school.	• Digital Leaders helped organised and run Safer Internet Day. They led the assembly and an online safety poster competition. • They have taken part in staff meetings, completing the Apple Teacher training. They will continue to complete their badges during meetings in school to achieve their Apple Teacher certificate. • During meeting, they are given new IT resources to explore new resources. These have included the apple apps such as pages and iMovie. They have then been able to support staff and pupils in class when using these.
Subject leader CPD to develop the use of apple technology and apps to maximise the use of iPads in school.	• Peer to peer coaching – working closely with the ICT subject leader at Lever House Primary School. The sessions have been tailored to our school needs and also given myself opportunities to see different apps and programs being used in the classroom. • Apple teacher training – all staff, SLT, HLTAs, some TAs are certified Apple Teachers and have been trained in the basic Apple apps such as Pages and Keynote. Digital Leaders will soon have the certificate too. • Staff meetings have included training in Smart Notebook, Showbie and also new VR and AR resources in school.

Impact of staff training:

STAFF CPD	**3x Apple Teacher training sessions** – training staff on the different apple apps and how they can be used to enhance teaching. All teachers and HLTA's are now Apple Teachers. Digital leaders also attended. **Showbie training** – Training on how to use the app successfully as a resource to support teaching and also as a way of recording and assessing pupil work. **Smart Notebook training** – getting the most out of Smart Notebook and how to use it to enhance teaching. **1.4.19 Staff meeting –** One drive training. **25.4.19 SLT meeting - Apple planning essentials course –** creating an action plan for implementing 1:1 devices in UKS2 and getting the most out of our iPads across the school. **24.6.19 Staff meeting** – staff training on new IT resources available. **1.7.19 Staff meeting** – time given to complete Apple badges. Support given to staff with this. **SLT meeting** – looking at AR and VR technologies available for primary schools.
SL CPD	**Apple/BT training course** – using iPads in the classroom. SL and Head attended. **Apple BT training course** – coding in the primary curriculum. SL and Year 4 teacher attended. **Peer to Peer coaching** – regular meetings at Lever House Primary School to support our use of iPads and apps within the classroom. Content has included coding in KS1 and KS2, observing Showbie and other apps being used in lessons, green screening and Clips training. (Ongoing) **Leyland Computing Cluster meeting** – opportunities to share good ideas and discuss common issues within the subject. As a group we came up with key aims and values for our subject. **Yarrow Valley Teaching Alliance Science Subject Leaders Meeting –** up to date information linked to the subject, curriculum requirements, Ofsted and resources available. **Class VR training** – training on how to use the new VR headsets in school. SL and Y6 teacher attended.

Future Targets:

➢ Continue to develop and increase the use of iPads to enhance learning within the classroom focusing on apple apps and Showbie.
➢ Develop Showbie as a way of evidencing IT work within school and creating a portfolio of evidence.
➢ Look at the progression of skills and knowledge across EYFS, KS1 and KS2 and how these are being covered.