RESEARCH INTO INTEGRATION OF ICT IN SWEDISH SCHOOLS' CURRICULUM
(Visit -June 2015)
This report is an abridged version of the report to governors.
Points highlighted in yellow are in action at January 2016.

BACKGROUND
Headteacher's appraisal target investigation into how ICT, and specifically tablets, were being used successfully in a country that might be used as a model for us to base our own future development in this area at Maryland.

Sweden was selected, as early research showed clearly that in Europe, two countries stood out as being at the forefront, Norway & Sweden. Sweden was selected to research, as they seemed ahead in their distribution of iPads, rapidly approaching one iPad per child. Moreover Sweden would be a good choice, as the population, at least in Stockholm, is diverse, so we would be able to visit some schools with an intake similar to our own.

HOW TECHNOLOGY IS USED TO ENHANCE LEARNING IN SWEDEN
All the schools we visited agreed that teaching and learning were improved by the wide use of tablets by pupils, but added that the success depended on the skill, knowledge and enthusiasm of the teacher facilitating the lesson.

They cited pupil motivation as a key factor – they don't forget their iPads at home, they keep them charged, they focus for longer on their work, pupils who are difficult to engage in learning respond more positively. Pupils see the point of the work they do, particularly if it is likely to be 'published' or shared on the internet.

The specialist teachers we spoke to who use tablets for SEN pupils said they made accelerated and often surprising progress where other methods had failed.

Teachers were in agreement that the best apps were the ones that were not initially designed for educational purposes, because these were the ones that are more likely to be used to create and produce something.

It is becoming more common for schools to set up online e-libraries where pupils publish their own books.

We wanted to know how the use of tablets impacted on handwriting and resources we have relied on for years to teach and learn successfully. Everyone conceded that handwriting has deteriorated in style and speed. No use of styli (as we observed being used in Japan) was evident and had not been considered by Swedish schools.

By being able to access supplementary resources, such as consolidation exercises, websites with resources, paper reduction is evident as teachers hardly ever photocopy worksheets any more.

TECHNICAL MANAGEMENT & SUPPORT
No school visited had an ICT co-ordinator. Teaching and learning is managed by a team of teachers. The local authority provides some technical support, but schools cannot rely on fast response, so they have, as stated above, a technical support person who also supports teachers with finding and using new software. Only one school did not have a designated member of staff in this role and felt they needed to.

Laptops are being phased out of most of the schools (except for teacher use). They are the most problematic of the hardware. iPads are proving fast and reliable, much more so than laptops or pcs.

IMPLICATIONS/CONSIDERATIONS FOR OUR SETTING
-Our pupils start school at 5 years, not 7 years. 1:1 distribution at this age and the way we teach literacy is not necessarily appropriate.
-At what age, if at all, will pupils be able to take tablets home? In Sweden, at approx. 12 years old. Loan agreements with parents would need to be in place that include contributing in event of loss or damage, but we know they could not be legally binding.
-Financially and operationally a time period for phasing out laptops and replacing with tablets and acquiring enough devices to aim towards at least 2:1 needs to be planned.
-The problems experienced with Apple in Sweden to do with multiple downloading of apps needs to be investigated in the English setting.
-Use of ITASS school-based technician to be rationalised, ie reduce time to a minimum in order to manage servers, intranet. This aspect of the service is expensive and won't fulfil the role of the technical support the school will need to embed integration of tablets into teaching and learning.

VISION FOR MARYLAND
Looking to the future: Maryland's aim for its pupils is to, prepare them for the future, which, apart from making them literate and numerate, includes the ability to use technology to support their learning and progress, as well as to prepare them 'for life beyond school' (Jan Aili, HT, Mattheus school). That life is technology led.

CHILD IN STOCKHOLM USING PICOLLAGE TO CREATE A PAGE ON INSECTS

- 'How to use' to 'how to create and produce'. The Swedish concept of using devices to promote learning through production has proven to promote learning more effectively than simply just focusing on the consumption model, where children are given tasks that are more akin to entertainment and reward.
- Skills: Maryland has a strong focus on the teaching of reading and that will not change. We will however now explore how children can produce their own e-literature which will be added to our reading resources.
The new Maryland e-library will be accessible via our website.

WELCOME TO MARYLAND PRIMARY SCHOOL's wE-PUBLISH Website

- We will introduce the use of headphones to listen to their own audio books (each Swedish child is provided with headphones).
- We will still nurture the love of books and keep our paper library well resourced.
- Training: the school is not yet ready to benefit from the kind of CPD that we will eventually need to put the above plan (Production and creativity) into action due to the fact that we do not have the hardware in place. We have only 32 tablets and will need to increase the ratio nearer to the Swedish model. We will begin by increasing the ratio with our Y5 &6 pupils as well YR (one between 2). To support staff training we will secure training from Michael Kling, who is a specialist support technician who is also an educationalist. CPD in the future (2016-17) we will front load our training with ICT based lesson studies to see how people are using technology in their lessons. We will use 2 -3 INSET days and weekly staff meeting. From Spring 2017, the staff will share expertise and learn further from periodic workshops until the

approach is embedded. The aim is to eventually set up a system where teachers leading learning and collaborate to share expertise, to build up a network of communication between teachers in other schools and to explore the potential of using Twitter and other communication networks.

- Timetabling. Although not ICT related, the timetabling of first 2 years of education in Sweden is very language –heavy. We shall add an hour weekly to the Yrs 1& 2 timetables for reading comprehension skills.

- Long term: 3 year SDP needs to be updated to include the funding and procurement plans and increasing the number of tablets and how we will distribute and integrate them into all subjects. The SDP will be reviewed to include a rationalisation of the use of our two ICT suites, since they are redundant for that purpose.
- Access and parental involvement: In the long term, the plan is to build an effective, easy home-school online communication, between parents and teachers and pupils and teachers, as in Sweden.
- Leadership and management structure to support teaching and learning. From Sept 2015, with the appointment of 2 additional AHTs, the leadership and management structure of the school will change. Each AHT will lead a team of staff /department where they will work with the team members to improve the teaching and learning demands in that phase
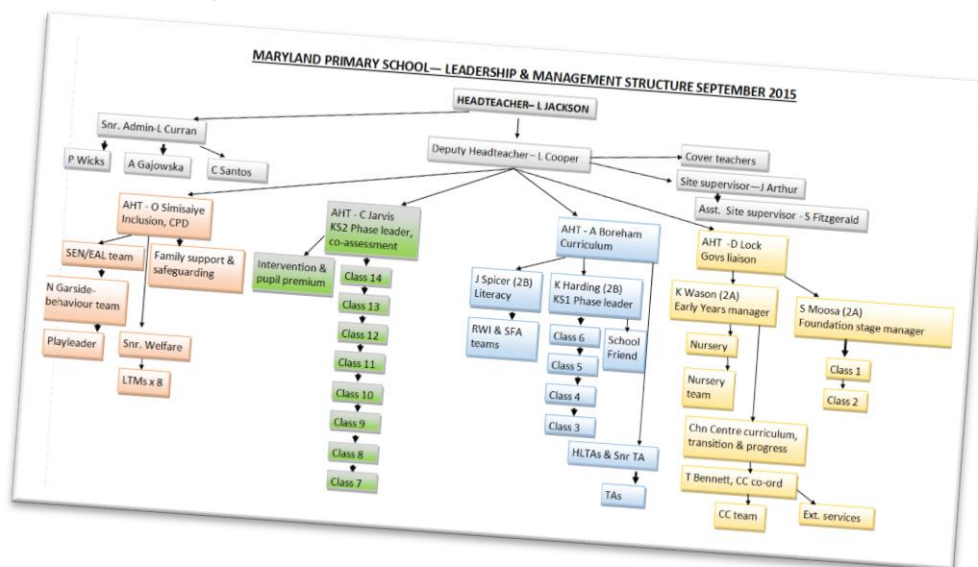
- Technical support / pedagogical support: From April 2016, we may no longer need 2 days of SBT support. By this time we will have a clearer idea of the support role that is needed to facilitate the new initiative and will create and fill the post to suit our requirement (not dissimilar to the Swedish model).
- Sustainability: A system to manage documents will be developed to facilitate archiving in the Cloud.

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