

Inspiring the Future / Primary Futures - Carville Primary School

Our Starting Point

We were invited to join the 'Inspiring the Future – Primary Futures' programme in the Autumn Term 2013 and after a few teething problems with the website we sent the following message to potential volunteers:

"Carville Primary School is working on an enriched curriculum for Science, Technology, Engineering and Mathematics. We will be holding our second annual STEM themed week (in early July) and would like to add a career aspect to our workshop and class-based practical activities. We are keen to work with as wide a range of organisations as possible from these sectors to provide career insights to raise aspirations for our pupils, in particular our girls."

A number of volunteers replied but only one contact followed through to a school visit and a planning meeting. Our contact was PS from Hewlett Packard.

Hewlett Packard (Facts and Figures)

- Started in California in 1939 by two friends
- Created a desktop calculator in 1968
- Created a desktop computer in 1982 and the laserjet printer in 1984
- Now operates in 170 countries employing 300,000 staff
- 10 sites in the UK employing 16,000 staff
- Ship 1 million printers around the world every week
- No. 9 on the Fortune 500 list in the USA

Our volunteer was PS. His pen picture on the Inspiring the Future database told us that he:

- Was a Senior Software Engineer
- Joined Hewlett Packard in 1996 in Newcastle upon Tyne
- Works on Government contracts
- Willing to work with schools to provide careers insight for children

Next Steps

- An initial meeting with STEM Co-ordinator was held in the Spring Term. The purpose of this meeting was to answer the question "What could HP bring to Carville?"
- A second meeting took place in the Spring Term to plan our STEM week including the timetable and the target year groups.

- The purpose of the third meeting (Summer Term) was to prepare the content and to analyse the software.
- A media release (final page) to local newspapers, radio and television.

Important Points to Consider

- Finding the right staff member or champion to work with the businesses is key; linking person to person. This also enabled us to manage effectively all the planning and preparation.
- Technical and attention to detail is very important.
- Copyright issues when replicating resources need to be considered.
- Involvement of IT Technicians in school is essential where ICT is involved.

STEM Theme WEEK

A broad range of cross-curricular activities were planned for the week with the Primary Futures focus being the key visit by PS on Thursday 26th June 2014.

Peter worked with pupils in our Key Stage 2 classes and began his presentation with a history of technology across the years. This culminated in a talk for our Year 6 pupils about the iCloud and the internet in greater detail.

For Years 3 – 5, Peter created a session where children looked at how technologies are shrinking in the changing world; a computer used to be the size of a room and now we can fit mobile telephones in to our pockets. The children used 2Simple software to make animations about shrinking technologies. In Year 6 Peter talked about the codes used to design and build websites. Using a template that he had created he taught the children how to design and build their own websites. The children went on to design and create their own apps.

The day allowed pupils to see someone who works in the ICT industry and the importance of learning these computer skills. Peter also shared how his learning in key areas in primary school had led to his successful career progression. As Hewlett Packard is based in Wallsend and the pupils were able to relate to this. Earlier in the week children had been given the opportunity to write questions for Peter and these were asked directly to him on the day, this gave their work a real sense of purpose. Children had also researched Hewlett Packard and again this gave a real sense of purpose to their work.

Other activities in STEM week included:

Date	Event
Mon 23 rd June	<p><u>Engineering Day</u></p> <ul style="list-style-type: none"> • Assembly by Sevcon – Whole school • Year 6 Science Experiments – Reception, Years 2, 3, 4, 5

Tue 24th June	<p><u>River Tyne Day</u></p> <ul style="list-style-type: none"> • Assembly by Institute Civil Engineering (ICE) – Whole school • ICE Workshops - Years 1, 3, 4, 5, 6 • Amber Project Workshops – Reception, Years 1, 2, 5, 6 • Primary Engineer Leader's Award Preparation Day– Year 2 • Bridge Challenge – Reception and Year 2
Wed 25th June	<p><u>Renewable Energy Day</u></p> <ul style="list-style-type: none"> • Educational Visit to the National Glass Centre, Sunderland – Year 1 • Richardson Dees Park visits – Years 3 and 4 • Inventions afternoon – Whole school
Thur 26th June	<p><u>Science and Technology Day</u></p> <ul style="list-style-type: none"> • TyneMet College assembly – whole school • TyneMet College workshops – Reception, Years 1, 3, 4, 5 • Inspiring the Future: Hewlett Packard workshops with Mr P Scarlett Years 3, 4, 5, 6 • Primary Engineer workshop – Year 2 • Numeracy challenge – Whole school
Fri 27th June	<p><u>STEM Fair Day</u></p> <ul style="list-style-type: none"> • ZooLab workshops – Years Reception, 2, 5,6 • NHS Dietician workshops – Years 1, 2, 3, 4, 5, 6

STEM Fair - Governors, parents, staff, pupils, community members, Further Education providers, LA Officers and local high schools all contributed to this exciting event.

Impact

The impact of involving 'Inspiring the Future and Primary Futures' in the school's STEM week has been very positive:

- Our whole school STEM curriculum was strengthened and enhanced through the programme.
- Quality, bespoke professional learning for our STEM Co-ordinator.
- 100% pupil participation for KS2 pupils.
- Positive links made with an international "local" company through the Inspiring the Future database.
- Staff, pupils and governors improved knowledge, skills and attitudes to Science, Technology, Engineering and Mathematics.

- World of work and the world of education were drawn together ever closer and positive relationships forged with future employers with links between learning in school and the children's futures highlighted.
- Expertise was shared and children's aspirations raised.

Pupils' feedback has been very positive:

"It was a superb presentation!"

Year 6 boy

"I learnt that there is more power in your mobile telephone than in a rocket"

Year 6 girl

"The presentation was awesome! I learnt so much about how technology has changed"

Year 5 girl

"I liked the information about computers and computing which has inspired me to do this job when I am older"

Year 5 boy

"It was inspiring to design App's on our school computers"

Year 5 girl

"I loved seeing how technology and computers have changed since 1986"

Year 5 boy

Conclusion

The programme was of interest to us because it was a free service connecting schools to volunteers from all sectors and professions which would underpin our work raising aspirations, determining science, technology, engineering and maths initiatives linked to the world of work.

Our school has existing links to business through our membership of the North Tyneside Learning Trust and through the costs of our SLA with North Tyneside Local Authority and Education Business Partners and Inspiring the Future / Primary Futures complimented our existing resources to great effect.

We intend to continue to access the programme and the volunteer database in the future and would highly recommend it to other schools.

HC July 2014