Rolls-Royce Science Prize Finalists 2017-18

Boston West Academy

January Diary

Our project is about 'Establishing Firm Scientific Foundations in Foundation Stage'. An explicit focus on Science will not only improve children's engagement with the subject and promote an enthusiasm for it, but will be the tool to impact on Communication and Language too. Children and parents will work together to see how Science is relevant in their everyday lives, promoting an enthusiasm for the subject both at home and at school, ultimately setting them off on a scientific journey that lasts beyond their first years at school.

Amanda Pickwell

Although we have only been back for a couple of weeks, Christmas already feels like such a long time ago! We had a team meeting at the beginning of term (as we try to each month) to discuss how the project is going, what the next focus needs to be and to share out responsibilities. This term is quite exciting as it's the term that the project really moves onto the next level. We have established our approaches in Foundation Stage and they are already having a positive impact. I asked one little girl about Science and she talked so enthusiastically I couldn't note down everything she said but she talked about 'you get a colour and you get a squeezer, you put it in the soil and it's good for new year' She commented that 'It's exciting!' The approaches we are using in Foundation Stage to highlight Science and to use it as a tool to impact on Communication and Language are now beginning to be implemented in Year One. Staff have took on board the CPD I did with them and have ordered some resources to further enhance the teaching and learning.

At our meeting we started to plan out the Science afternoon for parents. We have discussed when to hold it to ensure that the maximum number of parents attend and what it might look like. We agreed that the letter to parents inviting them in should clearly state what the aim of the afternoon is- to highlight Science, to share with parents how we teach Science in Foundation Stage, for parents to understand the link between Science and Communication and Language, and for parents to leave with ideas that they can use at home. We want to give each 'family' a pack to take home with information such as key questions to ask, the Early Learning Goal for Science, as well as some practical resources to try out some investigations at home. There is a lot still to plan but know it will be worthwhile.

My colleagues have been very efficient in getting their tasks completed this month. Unfortunately due to illness mine will be completed after this diary entry has been sent. I will be dropping into Foundation Stage to see Science in action as well as releasing Year One staff to go and observe too.

Becky Storey

There are two key activities I've been involved in this month.

Firstly, we met as a whole team to discuss and begin to plan our Foundation Stage Science afternoon, when parents will be invited into school to participate in practical Science activities, alongside their children. We discussed how we thought the event would run, including the activities that would be on offer, how the activities would be introduced and delivered, timings and possible follow-up activities.

Secondly, I visited the Foundation Stage classrooms, to see the two Science tables/areas 'in action'. Leading up to my visit, in previous weeks, the children had been exploring ice and a synthetic snow. For my visit, the Science areas had 'Jelly Bath' available for the children to explore.

The children talked to me about how the Jelly Bath felt 'gooey and slimy' and likened it to familiar things (e.g. jelly, soap, slime). They also talked about it feeling cold but some recognised that as they handled it, it became warm. There was an example of a child making comparisons with their ice investigations from a previous week, where she said she thought it would melt as it warmed up because that's what happened to the ice. Another child made a ball out of the jelly but when she placed it back in the tray it collapsed. I asked why she thought it had happened and another responded that it was because it was too sloppy.

It was good to see that while the Science table activities were clearly 'Science orientated', they utilised cross curricular elements too particularly impacting on Communication and language skills; this particular one linked to number and the development of motor skills (pick out numbers hidden in the jelly using chopsticks). The Science display boards showed quotes from the children, relating to their previous Science learning, as well as prompts, key words and visual representations of what they had been exploring (e.g. different ice pictures).

Jade Brockington

This month I planned to go and observe science in Year 1. I observed a science lesson focusing on the exploration of materials and whether 'the wolf' would be able to blow the material across a surface. The children began the lesson by exploring the various objects on their table and discussing what they thought they were made of. They then began to predict which they thought would be able to be blown across the table using what they knew about their properties and discussing the weight of the objects. The children were then able to test their predictions. Emphasise was placed on 'how can we make it a fair test', as the children began testing the various objects discussions were had about whether all the children should blow or just one, the direction they're all blowing in and the distance they were testing the objects at. When collating results, the children realised that they all got different ones so a discussion was had on whether they felt it was a fair test. One child commented 'some groups were blowing the train from the side so it won't move, but some did it from the front so the wheels will help it move'. Another then commented saying they could have used a fan to make it fair. The children were given plenty of time for exploration and experimenting during the lesson allowing for lots of discussion time, which the children utilised effectively. This builds on the approaches we have established this year in Foundation Stage and is great to see them having a positive impact on Year 1 too.

Emma Schofield

As part of routine monitoring of PLOD's (Possible Line of Direction) for planning in Foundation I looked into their plans for Outdoor Learning and Science. I was pleased to see that they had incorporated a range of fun and interesting ideas! Chinese New Year included some skills of whittling chopsticks and trails about the Chinese rooster. After giving them ideas in a web ready for the second half of the term about the polar region I am looking forward to reviewing their PLOD for term 4.

Expenses Update

Total Awarded: £6000

Date	Purchases	Cost
Money spent to date		£784.92
Science Fact Books for FS/ Year 1	What Animals Eat x3 books £22.95, KS1 Animal Habitats Book Pack £108.95, What Can Live There pack £26.95, Animals in their Habitats pack £39.95, Healthy Livin Book pack £89.95, Seasons book pack £26.95	£315.70
Year One resources	Play and Explore Fossils £16.22, Animals Instant Learning Centre £29.15, Straws 33.68, Animal fabric £29.96	£79.01
Total Expenses		£394.71
Total Expenses to date		£1179.63
Remaining Money		£4820.37