

EEF Case study:

Penguin Day Care Nursery - Hull



Key points of your Maths Champions improvements

- Improved Maths Area and resources
- A re-enthusiasm and awareness of maths topics and participation by staff and children
- Much higher and more varied levels of learning and development in Maths
- Staff awareness of own competencies and improvements within Maths
- More focused auditing of maths involvement, planning and observation
- New understandings of using patterns and time to aid learning

Background detail

Penguin day care is a private run nursery in the middle of Hull with about 100 children attending the setting. We range from university academia's to local council estate children and have both EYPP kids and full time attendees. We chose to do the programme after recently putting a lot of effort into our literacy development and provision and yet failing to implement any new maths changes. It was also felt that staff generally were unclear on how to assess and provide for all areas of mathematics, particularly within the preschool. We implemented the Maths Champion 2.0 programme mainly within our preschool but also included the toddler room leaders so that the maths provision could also be improved pre-pre-school!

Section 2 – Champion's section

How has the programme developed your own and your team's CPD?

Professionally our knowledge of the EYFS areas of learning within Mathematics has vastly improved, we are now confident and secure in observing and providing activities based upon all areas of shape, space and measure alongside number (rather than just looking at counting and shapes!).

Taking the maths tests on BKSB has also highlighted areas of confidence (or not) within our own maths and has allowed us to brush up on those pertinent to our work (where time allowed).

We have also been reminded of the importance of auditing ourselves and researching for best practice and ideas within our planning and provision for the children.

What has been the impact of the training?

During the course of the year we have had several effective sessions within staff meetings on unused areas of mathematics and how to thread them into the whole of nursery life. The activities found within the programme have been widely used throughout the setting and have produced a

range of different observations and assessments of the children, as well as providing them with loads of fun things to do!

Fundamentally our awareness of mathematics development within our planning, activities, provision and language has been improved so that without even thinking or putting any extra work in, we are implementing and using mathematics on a daily basis.

From your starting point to today, what have been the changes in the following:

- ***Children outcomes***

Increased observations in various areas of mathematics that show an improvement across the board in their awareness and attainment of all mathematical areas.

- ***Staff development***

Various points of training within staff meetings, suggested activities, increased awareness of mathematics thread through the whole of our provision.

- ***Parental relationships***

Improved parental awareness of mathematics at home through information leaflets, 'homework', online tapestry observations with suggestions and next steps and new 'maths take home bags' that contain activities and ideas for fun things to do over the weekend.

- ***Environment indoors***

A vastly improved mathematical area, with selectable resources, measuring, time and pattern making equipment being particularly improved. We have also added positional language and resources around the whole pre-school area and resourced more real-life monetary and time equipment within the whole room.

- ***Environment outdoors***

Use of the outdoors for fun activities and resourced measuring. More improvements to be made following the action research project.

- ***Attitudes towards maths***

In general all staff are more aware of how to implement maths within all areas of play and interaction with the children. New resources and activities have been brought in that have made people more excited about 'playing' maths and discussing it with the children.

Tell us about any new initiatives or projects relating to maths? E.g. parental partnership development

The maths area was previously cluttered and mostly used as role-play props with no mathematical involvement. This area was redesigned with selectable resources and a focused learning through play area distinct from the role-play resources and this has made children's play much more focused and beneficial to learning, whilst remaining as fun as before (if not more so).

Additional home learning bas have been set up so that we can encourage parents in their maths play at home with the children (previously only used literacy ones).

Section 3 – staff

What resources did you find most useful and why?

The resources section of the NDNA website has loads of good ideas that we could use to aid us in our maths planning, often being able to just take them, print them and use them was really beneficial.

The focused activities that we had to observe and upload were also really good ideas, the children loved them and we enjoyed implementing them!

Can you tell us the biggest change the Champion has introduced for maths across your setting?

Probably just improving our ability to talk maths with the children, we were missing out on so many opportunities!

How did you find the BKSB element of the programme? If you did not use this, please tell us why?

It was difficult to find time to do the BKSB, the initial assessments were interesting but completing all the modules proved too hard to fit into our busy schedule! Some of the elements that it suggested we do were also a bit too advanced for the work that we actually do, we drew the line at spending two hours balancing simultaneous quadratic equations!

Can you tell us the difference in your confidence and attitudes towards your own maths and teaching children maths since the start of the programme?

Much more confident in all areas of maths now, in terms of making the weekly plans to chatting it through with the children, it has been good to see that we can do little bits at a time without having to teach every area within something at once. Improving awareness and use of maths language and play has been great to see.

Next steps

One of our main methods of developing our practice further will be to implement our outdoors research project and finalise the changes that were highlighted within it, a useful tool to assess and plan for improvements within any area.

Keeping the reminders up and examples of how to talk maths with the children and passing on the sharing of resources and equipment via staff meetings will continue to be a fundamental method of ensuring maths stays at the top of the nurseries agenda.

It has great to see the children's play become more focused and educational without them even being aware of it, there are now much higher outcomes within free play and also adult initiated activities and the children themselves are coming up with new ways to use the resources and requesting their favourite activities again.

Final thoughts on the programme.....

The Maths Champion Programme initially seemed like a lot of work, with more 'paperwork' than was expected but it has turned out that all of these things we had to do have really influenced the setting for the better, making us more aware of how we use and improve maths, whilst enthusing and developing the children's standards too.

Some aspects seemed a bit over the top (the BKSB extension modules got a bit too time consuming) and it would have been great to have a much clearer timescale on what was needed when to complete the years programme but when approached little by little and planned out well it proved to be easily doable within the timeframe.

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