

Case study:

Maths Champions Case Study



National Day Nurseries Association

Name of setting: Muddy Boots Nursery (Cumbria) Ltd

Date submitted: 07/07/2018

Information supplied by: Stacey Herrmann

Title: Maths Champions Case study

Key points of your Maths Champions improvements

- Math's links to the EYFS
- *Confident building within staff*
- *Developing own knowledge and practice within Math's*
- *Developing staff's knowledge and practice within Math's*

Background detail

Muddy Boots Nursery is a graduate lead, children's day nursery. Situated in a safe and beautiful country side, just a mile from a local town. The nursery is open 7:30 am to 6.00pm daily and is open for 51 weeks of the year. We are registered for 51 places and cater for babies and children aged 3 months to 5 years. The nursery is a provider for babies and children of the local community as well as children for staff and students who attend the on-site college. Within the nursery we cater for children from disadvantaged backgrounds, children and staff with SEN and children with EAL.

Myself (Stacey) and 6 staff have signed up to the champion programme, 5 staff are based with Pre-school children, I am one of the Deputy managers and I work with mixed age ranges and the other champion works at the on-site college. She is one of the tutors who has been effective in helping students on the childcare course to have a better understanding of maths in the Early Years.

As one of the Deputy Managers, one of my roles is to oversee the planning, observations and summative assessments, within the Early Years Foundation stage. Whilst looking at these different areas I noticed that there was a pattern emerging. That Maths wasn't being used that much. After looking at observations and planning I discovered that maths could be linked with the EYFS, however staff were missing this opportunity, after talking to them, about their understanding of what maths was, and I noted that their own personal confidence and development was low. I went to my Manager with this information and said

“I was looking for a new challenge, to develop my own Professional development” and had received information from the NDNA about a Maths Champion program. I explained that not only would it benefit myself, it would also benefit the staff’s development, confidence and knowledge. The Children would highly benefit from this as it would enhance their own development and the nursery as a whole. I chose to start with Maths Champion program with the pre-school children and staff as this was the area that was highlighted the most in my evaluation of the maths provision within the nursery.

Section 2

Highlights and lowlights of the programme so far

First of all, I gave the chosen champions the audit forms to fill in, so I was able to see where their confidence and understanding was. This highlighted what I already thought,

- That we could do more to improve our math’s provision.
- That staff were not that confident with math’s and their understanding about what maths was about was low too.
- I needed to catalogue and audit the current math’s resources available and to identify further resources that would help challenge the children.
- Upscaling and improvement of outdoor math’s resources
- Closer links with parents to promote math’s at home
- Making math’s fun. Challenging and inclusive for all (Children, staff and parents).
- Information, support and advice for parents.

I started by addressing the staff maths confidence levels, this was done through peer observations as many staff didn’t realise that they were using maths throughout the day and thought that maths was more about numbers and counting. To help build confidence, I recruited student Hannah to come in and teach the staff up to GCSE maths for fractions, percentages, and higher-level maths such as algebra, ratios and trigonometry, using current maths teaching procedure. Hannah is 17 and last year she achieved A* in her GCSE Maths. Since Hannah has been doing these training events, staff have reported she has helped them immensely to improve their numeracy skills and are now feeling more confident within themselves, in delivering maths to the children and parents.

Working with the tutor at the on-site college, we have been organising sessions where students come to the setting and work with a small group of children. This has helped the students understanding of maths along with the benefits to the children and staff within the pre-school group. It has helped develop their understanding of maths and how to make maths fun and stimulating with the Early Years.

One of the highlights was our nursery team building/bonding day. To continue the maths theme, I took them to Escape Rooms where fun and maths was the theme of the day. We were locked in a bank vault and had an hour to escape, this promoted teamwork and lots of maths to solve the clues, we completed the task in hand and escaped with money and seconds to spare.

Largest area of impact has been raising the confidence levels of not only myself by all 6 Maths Champions.

All Staff in the Pre-school team are now linking EYFS Maths to the weekly planning, beforehand all planned activities were linked to the EYFS but not all 7 areas, this led to staff not planning for maths and children missing out. When looking at the planning it was clear to me that the activity could be linked to maths but the staff understanding of maths means they were missing these opportunities. After a team meeting, it was discussed where possible that each activity planned for in the pre-school group needed to be linked to all 7 areas of the EYFS. This allowed each child to get the best possible outcome from everything they did.

I have catalogued all math's resources which include photographs, I identified gaps in resources and with the nursery manager purchased further resources to supplement existing provision.

One of my key findings from evaluation and parental survey was to try and find ways to persuade parents to become more involved in their child's home learning especially maths. I discovered that a lot of parents accessed information on the nursery social media site and using our on-line learning journey, therefore I have set up a monthly home learning maths activity, which can be carried out at home, by the pre-school children. Which in turn the parents put photos and observations on our on-line journal so this can be linked to the EFYS.

I also have signed up to the social media information page (Facebook), this allows us to keep up-to-date with new information, advice and activities.

Impact of the programme

When looking at the latest Summative assessment, all the pre-school children have observations in both areas of Maths. Most of the children are developing with 30-50 months and some children are even entering into 40-60+ months, which when starting Maths Champions in September 2017 we had no one within 40-60+ and only a few developing with 30-50 months. This has been a positive impact on the pre-school children, the staffs knowledge, understanding and confidence, and will continue to see this development into the next term and into the further.

Did you achieve what you wanted from the programme? If so, how?

At the beginning of the programme I wanted to develop my own personal development, while helping the staff develop their understanding of the EYFS maths. This in turn would have a positive impact on the children in their math development and impact on their learning when going to school. Looking at the staff and myself confidence levels through the audits and the Summative assessments levels this is clear to see that what I have put into place has had a positive impact on all that's been involved.

How has the programme helped you further develop your own practice?

The Maths Champion programme has given me and the nursery the tools to revisit maths and look at how we could improve outcomes for our children, parents and staff confidence. I find that I am using more maths with the children throughout the day, and I am able to adapt it to the different age ranges I am working within.

Next steps:

We will continue to develop this learning especially in the outdoors as we introduce our new Woodland Warriors programme, where we will develop maths outside with a few to using more natural resources.

When returning from Maternity Leave, I am wanting to continue to focus maths in the other age ranges 2-3's and babies, even though we don't link to maths EYFS in these rooms (Prime areas are the main forces) I think with some staff training to develop their understanding and knowledge would benefit the children moving into pre-school and when those children come to leave to go to school, we will be able to see a noticeable change in the summative assessments, some could be developing at 40-60+ months.

National Day Nurseries Association

National Early Years Enterprise Centre, Longbow Close, Huddersfield, HD2 1GQ.

Tel: +44 (0)1484 40 70 70, Fax: +44(0)1484 40 70 60, Email: info@ndna.org.uk, Website: www.ndna.org.uk, Twitter: @NDNAtalk,

Published: 2018