

## EEF Case study:

### St. Gabriels Children's Day Nursery



#### **Key points of your Maths Champions improvements**

- Bullet points

#### **Background detail**

*We are St. Gabriels Children's Day Nursery and we joined the 'Maths champions' programme as it was presented as a fantastic opportunity for staff, children and setting when approached by the programme leaders. The nursery holds 113 children on a daily basis and is split into 4 rooms; Buttercups (0-18 months) Poppies (18-27 months) Lily's (27-36 months) Sunflower's (Pre-school) all of which focus on the 3 prime areas of learning (PSE, CL, PD) and the pre-school room concentrate heavily on the 4 specific areas (M, EAD, UW, L). Each of the rooms incorporated maths to an extent, but we knew the 'Maths champions' programme would enhance and support this even further. Carla McKnight, the nursery manager was in charge of introducing, training and motivating the staff with the programme. Originally, a senior member of staff from each room was going to be in charge of 'Maths champions' for their specific room, but due to staff changes and promotions, this had to be changed. Certain staff volunteered and showed an instant interest in joining the programme, so Carla selected a staff member from each room who she felt was best suited to be involved.*

*Buttercups; Wendy McEvoy*

*Poppies: Alex Heppell*

*Lily's: Hayley Sheriff*

*Sunflower's: Donya Veevers*

#### **Section 2 – Champion's section**

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

*It has drastically developed CPD within the nursery as the 'Maths champion' staff have been able to go on quite a few maths courses, which has really helped not only with our own confidence, but helped us to implement things into the room that have given the children confidence in their own abilities too. The training and resources provided through the online NDNA 'checklist' have been a huge help and really given staff a good start and understanding of how to begin improving the environment. By completing the audits at the start of the programme and near the end, it has shown staff just how much work and improvement has been done and allowed everyone to grow in confidence.*

## **What has been the impact of the training?**

(e.g. training courses / staff meetings / in-house training / mentoring / peer observations / key changes / overall practice)

Staff have been put on various training courses to enhance existing skills and gain new ones that are appropriate to the age group they work with. Donya and Hayley attended 'A mathematical environment' and 'Maths outdoors' most recently and were able to bring back lots of new ideas and activities to present to staff throughout the nursery. They each made a booklet for their respective rooms, talking about how Maths can be used through play to learn and be fun for both children and adults (staff or parents.) These booklets were placed into a 'Maths champions' learning journey that the 'Maths champions' had come together to make, collecting evidence to show OFSTED, new staff and keep record of the programme. The 'Maths champion' staff have been given time to come together to discuss each rooms progress and learn and train each other, using things they have learned from outside training and professionals.

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

- **Children outcomes** – There has been a big difference in children's attitude to Math's, as well as their learning and development. The children who took part in the research programme, have shown great progress and we have even had feedback regarding this, from their parents during pre-school report appointments. By implementing our math's table, estimation station, loose parts area and reflecting the indoor classroom outside, the children have shown more interest in math's and higher levels of involvement when taking part in numeracy focus time.
- **Staff development** – Looking at the audit's the staff have completed, confidence has definitely improved, which means resources and learning has improved too. The staff have brought new ideas to the rooms, not only to Math's areas but being able to implement Math's into other areas around the room. Staff feel more confident when carrying out Math's activities and this has spread to other members of staff, who have learned through observing and working with the 'Math's champions'.
- **Parental relationships** – Parental relationships have improved as during parent's evenings, they were told about the 'Math's champion' project in even more detail, where the progress currently stood within the rooms and how it had helped improve learning. They were shown activities and ideas that we carried out with the children and given a chance to read the booklets staff had made, which in turn gave them ideas of things to do at home. The home link books that children complete small tasks in were able to incorporate math's more, which also helped parent's understanding of what we were doing each work/term. Our Math's table is located near the door of the room and is always on display, with items changing as and when needed/the children change them, this allows parents to view it on pickups and drop off and see the children using and interacting with it.



- Environment indoors-** We felt the indoor environment needed visually improved, as we had quite a lot of resources already that were brought out specifically for math's activities. We created number lines that are now always changed to match the theme/children's interests, a math's table was put out and children are able to help choose what is put on it each week, an estimation station was implemented after a successful week of estimating during focus time; buttons, corks and beads are placed in a bowl and children are provided with a pot marked with a '?' and given the chance to fill the pot and estimate how many items are in it. The construction area/loose parts was also vastly improved and made bigger. We made pattern cards and labelled different pots with beads, keys, corks, pine cones etc and allowed children to explore shapes, patterns and arrangements. This was one of the most successful changes due to the 'Math's champions' programme.



- Environment outdoors-** The nursery has always wanted the outdoor environment to reflect the indoor one and especially after completing the research task as part of this programme, the outdoor area was improved greatly. The research task allowed us to break down each part of the outdoor project and realize exactly just how much work was done and how well things changed in regards to learning and attitude to math's. After seeing the success of the changes inside, it was easy to choose what we would like to put outside, as we already had the children's opinions and feedback in the form of where they played most and what they chose to have out. Because we had such a successful outcome indoors, we were able to reflect this outdoors and have it be just as successful. The children were more eager to go outside regardless of weather and were more engaged in each area outside; wanting to sit and carry out activities more, instead of just using outdoor physical equipment every day.





- **Attitudes towards math's-** The entire nurseries attitude to Math's seems to have changed, people are more open to the idea of doing things involving Math's now rather than feeling insecure or negative about it. Personally, I have a totally new opinion on Math's and will definitely be heavily focusing on it long after this programme finishes. The help from the NDNA training, courses I have attended, resources provided online, have all hugely helped me to gain a new found passion for Math's and to be able to share this with the staff and children has been the best part. It has been lovely to be able to learn so much myself, as well as help the children to learn. It has opened up a whole new world of ideas and activities as I have learned that Math's isn't boring and just about numbers or counting, every single thing you play and learn can have an aspect of Math's and it can be fun and enjoyable. I feel that this has had a huge impact on the children and by us giving them confidence in Math's from an early age, it can help to get rid of the stigma that Math's is scary, boring and impossible. It can set you up for life and I hope this is what we have done and will continue to do for the children in our care.

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

Due to the success of the loose parts area during the programme (both indoors and outdoors) we have decided to begin a new project in September using the garden shed. We have taken inspiration from a local organisation called 'The house of objects' who are introducing 'invention sheds' into nurseries. We are going to make our own 'invention shed' and incorporate our successful loose parts vision into this too. Staff will be researching Simon Nicholson's loose parts theory to help gather information and really enhance the success of the project. The entire journey of our 'invention shed' will be documented in the 'Math's champion learning journey' and available for parents, staff and OFSTED to view whenever they like.

**Section 3 – staff**

**How has the programme developed your CPD in relation to maths?**

I feel so confident about Math's now as I have been put on training that has me given ideas, resources and tools to help me understand and learn that Math's is so much more than just counting and drawing shapes. I have been able to share all of this with the rest of the nursery, which has given them and me confidence too.

**What has been the impact of the training on your day to day practice?**

We have implemented many new things into the rooms within the nursery and this has helped to improve day to day practice greatly. It has helped the children to learn Math's through play, given us extra resources to carry out activities or focus time sessions with and allowed us to have something to show parents whose children were heavily involved in the research programme.

**What resources did you find most useful and why?**

We found that the audit's and the research task were the most useful as they allowed us to really reflect on things we had done and implemented throughout the programme and all around nursery. The audit's helped us to compare what things were like at the start and showed us just how far we had all come on by the end of the programme.

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

*The biggest change has definitely been in the staff. Everyone has really enjoyed the programme and this has impacted hugely on the children and other staff within the room. Giving the staff the chance to build their confidence like they have, has allowed them to be enthusiastic about bringing in new ideas, carrying out activities relating to maths and training others around nursery. It has had a ripple effect and everyone's enthusiasm has been contagious, which has been excellent for the children and their learning.*

**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?**

*Due to completing the various tests and online Math's programmes, I feel my own Math's ability has improved slightly, although I still feel a bit insecure doing more complicated Math's such as algebra, fractions etc. I feel extremely confident when teaching the children Math's and thinking of new activities and ideas, as this programme has given me such an open mind on learning and teaching Math's. I feel like I have been able to share this passion and confidence with the staff in my room and around the nursery, which has had a positive effect on everyone in the rooms, especially the children.*

**Next steps**

*How are you going to develop your practice further and why, what will the impact be? Who will be involved? How will your practice support good outcomes for children?*

*We will definitely be carrying on aspects of the 'Math's champions' programme and continuing to train and develop staff confidence, resources and learning within each room of the nursery. The resources and knowledge we have gained from the programme will be used and documented in our 'Math's champion learning journey' which will be excellent evidence and a good tool to look at when training new staff. By continuing the practice we are currently doing, the children will remain learning, enjoying and developing at the excellent rate they are now. We will continue to let this practice be led by the current 'Math's champions' but welcome involvement from all staff who are part of the nursery.*

**Final thoughts on the programme.....**

*We would like to thank the NDNA on behalf of the entire nursery for allowing us to be part of such an excellent opportunity, not only for the staff but for all of the children too. It has given everyone a whole new outlook on Math's and allowed us to grow in confidence and knowledge, which in turn has allowed the children to do the same. The resources and excellent structure of the programme has helped us to build an outstanding repertoire of enthusiastic, knowledgeable and reflective staff who will continue to uphold the current standard in regards to Math's now and in the foreseeable future. Thank you very much!*

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