

Maths Champions Case Study

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Setting: Windmill Daycare

INTENT
Introduction <i>A little bit about your setting, why you joined the programme and what you wanted to achieve from it.</i>
We are a daycare in Leeds with 3 rooms (Buttercups 3 Months - 2 Years, Tulips 2 - 3 Years and Sunflowers 3 - 4 Years) we can have up to 150 on roll. We provide full days alongside AM and PM sessions (Term Time Only) we are open all year round apart from a nursery closure at Christmas. We joined the programme after our Head of Early Years had seen the programme and wanted us to update our Maths knowledge for all ages. We wanted to see if there was anything else we could be doing for the children in nursery to develop their maths knowledge and skills.
How did you decide what to do? <i>What did the audits highlight, what changes did you consider and how did you identify the change/s to be made? Did the changes you considered come from the online training or resources etc?</i>
We carried out the staff confidence and learning environment audits through the whole of daycare (3 Months - 4 Years). One of the biggest things this highlighted for us was that we needed to review the resources we had available across the setting. We had a good range of adult directed maths activities planned into our nursery but we felt there were limited opportunities for natural exploration of everyday maths, which meant a lot of the resources were closed ended and didn't offer opportunities for children to expand on their ideas. It also highlighted that we had some long-standing staff members who had a good knowledge of how to support children's maths learning and some newer members of staff who weren't as confident, and could benefit from some coaching support.
IMPLEMENTATION
What did you change or implement? <i>Outline a positive change, or changes, that have taken place as a result of being part of the Maths Champions programme. How did you plan for it and what did you do? How did you plan to assess the benefit of the change on staff practice and children's experiences?</i>
We started to think about and look for opportunities for everyday maths exploration in play. Myself and the Deputy Maths Champion were inspired by the loose parts information available on the resources section. We had some knowledge about using loose parts but didn't always have these available as part of our continuous provision and wanted to know more about the extent of the learning loose parts provided. We did some exploring of what opportunities could be made from loose parts and decided to introduce some loose parts into our continuous provision in all our rooms and outdoor areas. We emailed and spoke to different companies about any materials we could use and have for daycare and we were able to get some amazing items from a lighting company. We worked closely with staff to see which resources we would make available to the child freely and which resources would need extra support from staff. We ensured that staff knew how to confidently support children to use these resources and what possible maths learning could come from exploring them. To start with, we looked at what loose parts we already had in the daycare and organised them into baskets on shelves with a range of containers, so children could freely access these to explore and knew where they needed to

be returned. We then observed the children to see what happened. Staff explained and described what the resources were, if children didn't know, and they modelled using them in play, focussing on the use of mathematical language, using the ideas from the training.

We observed children transporting loose parts from the construction area to other areas of the room to add to their play. The children worked well together to problem solve, leading to various discussions as to why some resources worked and others didn't. There was also an increase in use of positional language as children narrated their play, talking about things being inside, in front, on top etc. This could be seen across the whole nursery with staff supporting the children more in the 0 - 2 years room, stepping back a little in the 2 - 3 years and letting the children go with in it in the 3 - 4 years room with staff still observing from a distance.

The children decided to use the different loose parts resources they had alongside their blocks to build shops, cars and roads. Staff played alongside children and encouraged them, extending their use of mathematical language and asking questions to challenge their thinking, such as; "I wonder where the cars park?" "How many houses have we created now?" "Will there be enough room for the house?"

Following the success of the introduction of loose parts, and through observing children transporting these to other areas of the settings, staff have increased the range and amount of loose parts available so these are accessible more freely for children to explore. Staff have also spoken with parents about loose parts and we will be holding workshops for parents to attend where they could explore loose parts. We will explain to parents why we have started using these resources in the nursery and the benefits and we explained how to keep children safe when using the loose parts.

IMPACT

The success and benefit of what you did:

For children

What has been the impact of the changes on children's learning and development? How has being involved in the programme made a difference for children in your nursery?

Children's confidence and development has come on so much through the introduction of loose parts into the setting. Some of our EAL and quieter children have been intrigued by the resources on offer and have engaged in free play and have started playing alongside each other more as they have had similar ideas, which was amazing to see. We can see the children's confidence growing as they give ideas and suggestions about what they can do and become more imaginative as they play and test out their ideas. The increasing range of loose parts on offer means children can work more collaboratively together and this, again, has had a big impact on all the children learning from each other.

For families

What has been the impact of the changes on families? How has being involved in the programme made a difference for families whose children attend your nursery?

This is an area which we are continually building on however parents have been involved in their own children's development. The parents have commented that they have enjoyed having the nursery rhymes on clasdojo as they have been to sing them at home with the children and make the links between the home and nursery life.

For staff

How has being involved in the programme made a difference to your staff team/individual practitioners? What has been the impact on their practice?

The Maths Champions programme supported the staff to evaluate what they did with the children in regards to providing maths opportunities, and in particular their understanding of how to support children's knowledge of positional language has increased. Using the loose parts has helped the staff to provide more opportunities and ideas for planning when having room weekly meetings.

For the Maths Champion and Deputy Maths Champion

How has the programme helped you as Maths Champion and Deputy Maths Champion to develop your own practice? What has been the impact on your practice?

Doing the Maths Champions programme has helped us understand what resources we use and which ones we need to think about and if we actually need them. It made us think about how we promote Maths in the different areas of the provision and how we can support the children through Daycare when they transition to the next room. Bringing in the loose parts has helped us see how many different opportunities we can offer the children to build on their Maths knowledge.

For the setting

What has been the impact on your environment?

The environment is more engaging and there are various opportunities to extend math learning through the children's immediate environment. The rooms have become a more interesting learning environment where children are able to access more resources independently. The possibilities are endless for the children now they have a loose parts environment.

Next steps

What further improvements might you make and how will you continue to monitor the quality of maths opportunities within the setting?

- Run a Loose parts session for Parents to see loose parts in action.
- Keep having conversations with staff about Maths and providing opportunities for the children to develop to continue their development.
- Keep open minded about the resources and how we look at them and use them.
- We plan to continue auditing our resources and environment termly to see if things need changing or replacing.