



Issue 117 Autumn 2015

Montessori

INTERNATIONAL

Published by the
Montessori St Nicholas Charity



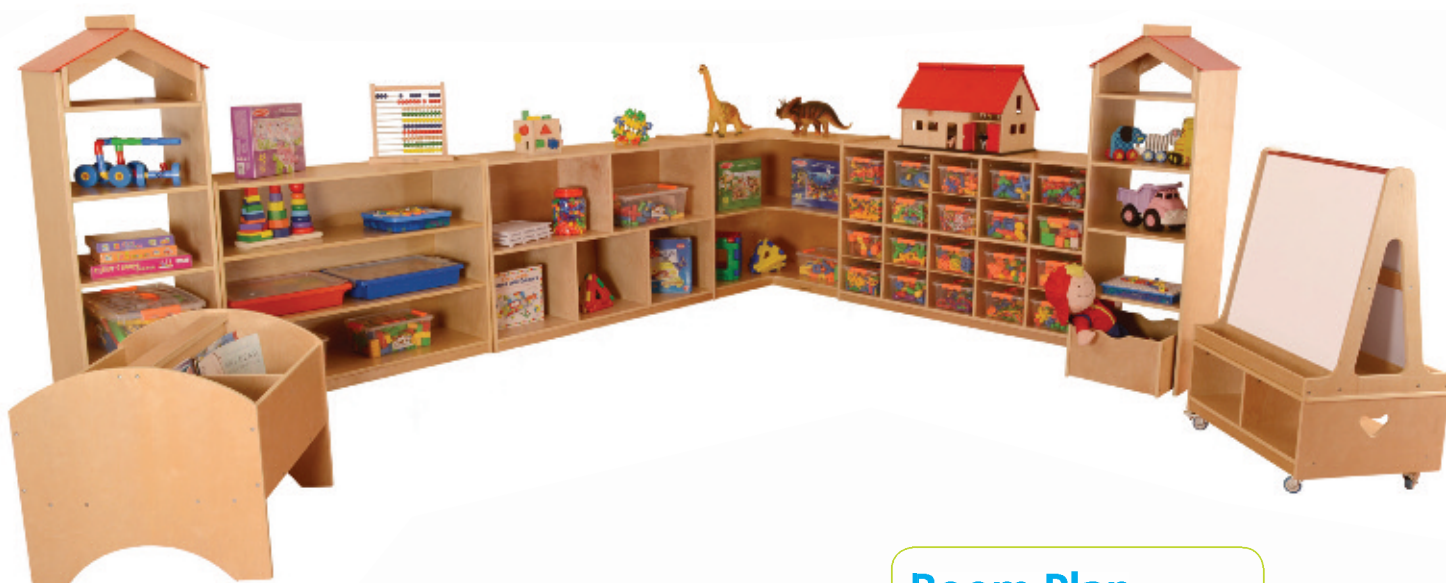
Mathematics



MONTESSORI

Strong and sturdy. Neat and tidy.

Bply : room plans



Our popular Bply range now includes Room Plans. We've carefully chosen these furniture combinations to provide plenty of storage space and to suit different age groups. Every Bply item is easy to assemble and engineered from natural birch ply - and all are available with an exclusive 5% off.

Quote **MSIQ415** when you order. Delivery is within five days and free when you spend over £75.

Room Plan

£940*

Arched Bookcase £85
Small Easel £133

with your
Exclusive 5%
Partner discount

To order call **0845 603 3195** or visit **earlyyearsdirect.com**

Welcome

from the editor

As a lifelong avid reader I have always felt an affinity with words, but unfortunately I cannot say the same for numbers. So it has been interesting for me – and something of an education – to have an issue of the magazine on the topic of mathematics, with articles on a range of themes within that main topic.

Come to think of it, the first paragraph of **Lynette Brock** and **John Siraj-Blatchford**'s article could certainly include me when they speak of people who "got lost" when it came to learning mathematics at school. They then go on to discuss the importance of scaffolding learning to support the development of maths skills in young children and the increasing emphasis on schema development.

Putting mathematics in a very different setting, **Michelle Wisbey** gives some suggestions for maths activities outdoors and outlines why they are important. **Graham Lord** then takes us back into the classroom, writing on techniques for introducing mathematical concepts to primary children. Finally **Jeremy Clarke**, as



ever, takes us into the home, and describes how focusing on practicalities can, amongst other things, help young children with their perception of quantity and number, and the connection between the two.

In other articles we have **Hannah Baynham** telling us about the exciting and interesting project of a Montessori co-operative in Turkey,

Caroline Crabbe on encouraging music and song in the family, and **Kathryn Solly** covers the important issue of maths teaching for SEN children.

As you may have noticed from its designation as the 'Autumn 2015' issue, we will in the future be publishing *Montessori International* three times a year to key in with the terms of the academic year. But that will be the only change: the quality of content and contributors will remain exactly the same.



Philip Davies, Editor

Montessori

INTERNATIONAL

Editor

Philip Davies

Editorial enquiries

Tel: +44 207 493 8300

e-mail: daviesp@montessori.org.uk

Editorial Address

18 Balderton Street,
London W1K 6TG

Marketing and Display Advertising enquiries

Rupert Smedley on +44 207 493 8300
e-mail: smedleyr@montessori.org.uk

Marketing Address

18 Balderton Street, London W1K 6TG

Job advertising enquiries

Sameena Wali

e-mail: Sameena@montessori.org.uk

Subscription enquiries

Sameena Wali on +44 207 493 8300

Annual subscription rates

Magazine incl. p&p (4 issues)

UK £19.95

Europe £29.95 / €45.00

Rest of World £33.00 / US\$65.00

Students (incl. p&p): UK £15.95;

Europe £23.00 / €36.00

Rest of World £28.00 / US\$56.00

E-magazine (4 issues):

UK and overseas £14.95

Published quarterly
by Montessori
St Nicholas,
London



The views expressed in *Montessori International* are not necessarily those of the publisher and editorial team, nor are advertisements endorsed by them.

Montessori International is designed by Stuart O'Neil, Design for Print (UK) Ltd, 01442 769422

Printed by Polestar Stones, Banbury, Oxon

ISSN 1354-1498

www.montessori.org.uk

Contents

Issue 117 Autumn 2015



Feature articles

14 An investigation of schemes and schema in emergent mathematics

Lynnette Brock and John Siraj-Blatchford report on the use of schema in pre-schools.

18 Maths in the great outdoors

Looking for ways to expand the range of maths activities in your outdoor environment? Michelle Wisbey outlines why these activities are important and provides some suggestions.

21 Geometry, numbers and a touch of algebra

Graham Lord describes a few ways to introduce mathematical concepts in the primary classroom.

22 You can count with me

Jeremy Clarke discusses the difference between young children's perception of quantity and number and how to support children in learning about the connection between the two.

24 Montessori on the Bosphorus: a Montessori cooperative in Istanbul

Hannah Baynham explains how the cooperative model is more than just a Montessori education, providing a meaningful and stimulating school experience for children, their families, and the community.

32 The power of music and song

Singing and making music are important from an early age – Caroline Crabbe gives some tips on how they can be encouraged within the family.

38 Mathematics and young children with special educational needs

Kathryn Solly reports on some of the factors that affect a child's understanding of maths.

42 Montessori & me – A pathway to Montessori

Patrycja Folta tells us about her route to studying at Montessori Centre International.

Regular departments

3 News

4 MSA News

12 MCI News

27 Bright ideas

28 Reviews

30 Ask the Expert Q&A

34 Education & Special Needs & Disability Update

36 Research Watch

42 Montessori & me

46 MEAB Accredited Schools

48 Progression Route

Classified advertising

43 Teaching opportunities

Cover picture

Courtesy of Rose House Montessori School

Sarah is finalist in NW 'Trainer of the Year' award

Montessori International is very happy to report that Sarah Olley has been



voted as a finalist at the Nursery World Awards 2015 in the category 'Trainer of the Year'. In their letter of notification Nursery World wrote; "This is a tremendous achievement against incredibly tough competition this year, congratulations."

Sarah is a full-time academic tutor who teaches on the Diploma Montessori Pedagogy and the Foundation Degree Montessori Early Childhood Practice at Montessori Centre International, and has special responsibility for students with additional learning needs. She has taught at the College longer than any other tutor, and has seen many changes over the years.

Here are a few extracts from the nomination that reflect why she has been voted as a finalist for this prestigious award:

"Sarah supports not only students but also her colleagues across the college. Her energy and enthusiasm are infectious and seemingly

unlimited, she spreads positivity and gives of herself untiringly. ... Students consistently describe Sarah as 'inspirational' on their evaluations and that is a word that encapsulates her. She has a passion for Montessori that is passed to the students as they prepare in their work with young children. ... Sarah describes herself as 'a very practical lecturer with a great sense of enthusiasm and real commitment to improving the quality of teaching to ensure the needs of children are not lost'. We would describe her as our own personal treasure and touchstone..."

One of the students expressed it this way: "Sarah has an ability to take on board your thoughts and feelings. She gives such constructive feedback and advice in a manner that is not only accessible and clear but challenges the way you are thinking. Her approach is everything that I hoped a Montessori teacher to be. Her love and passion for teaching is clear, she made me feel like she really cared about if I did well or not. Sarah is a brilliant teacher, one I will always remember."



The awards presentation took place on Saturday 26 September and, accompanied by her family and colleagues from Montessori Centre International, Sarah was celebrated as 'highly commended' within her category. This is a wonderful accolade for a very deserving tutor, and we extend our congratulations to Sarah who has given so much of herself to students and colleagues at MCI over many years.

A day at the museum

Sid Mohandas reports

It was a Sunday morning, 23 August 2015, and we were at the prestigious V&A Museum of Childhood in Bethnal Green. Montessori St Nicholas was organising a Family Play Day for parents and their children to engage in play and to have a glimpse of the Montessori approach.

Two rooms were set up in the basement of the museum. The first room had a range of Montessori materials catering to ages birth to 5 years, consisting of a few Practical Life activities: Knobless cylinders, Large moveable alphabets, Continent maps with animals, Colour box, Small number rods and Language activities, to name just a few. The same room also had a baby area with Treasure baskets and Heuristic play – specifically designed for babies to have a wide variety of hands-on natural sensory experiences.

The second room was dedicated to arts and crafts, where various activities with playdough, watercolour painting, making necklaces, collages and so forth were provided.

By 11 o'clock we were all set and ready – six of us Montessori ninjas – and a good thing too, because before we knew it the two rooms were packed with parents, families and children. There were somewhere between 60 and 70 families, and the level of engagement was astonishing. There were parents



exploring the treasure baskets with their wee ones, dads painting alongside their children, siblings blending sounds with their younger ones and so forth. One parent, as he watched his son repeatedly dig in to find and name animals that were hidden in a bowl of lentils, said he had never before seen his three year

old engage in learning in such an active way.

The families came from varied backgrounds. Some were introduced to Montessori for the first time ever, few had children who were already in Montessori nurseries, and a number of them were interested in incorporating the approach in their home environment. But all in all, we had some very inquisitive parents with questions and concerns primarily focused on offering their children the best learning experience. In order to answer their questions further, the book *Learning Together: What Montessori Can Offer Your Family* by Kathi Hughes was also on offer.

We felt the event was a huge success, with parents and families fully engaged in playing and learning with their children.

Outstanding Ofsted

Congratulations to **Iverna Gardens Montessori** in Kensington, London, **Butterflies Montessori** in Warley, Essex, **Norwich Montessori School** in Colney, Norfolk, **Victoria Road Montessori** in Kensington, London, **The Village Montessori Nursery School** in Reading, **Phoenix Montessori Nursery** in King's Lynn, Norfolk, **Beehive Montessori** in Shalden, Hampshire, **Farnham Montessori** in Wrecclesham, Surrey, **Oaklea Montessori** at the **Windmill Childrens Centre** in Harwich, **Hopes and Dreams Montessori** in Islington, London, **The Children's House** in Kidlington, Oxfordshire, **West Chiltington Montessori** in West Sussex, **The Lavender Lodge Montessori Nursery** in Burgess Hill, West Sussex and The Montessori People at **Highflyers Children's Centre** in Thornaby, Cleveland which have all been awarded Outstanding in their latest Ofsted inspections.

Don't forget to let us know when you receive Outstanding in your Ofsted inspection so we can mention your school in the next issue of *Montessori International*.



CHAIRMAN'S UPDATE

August 2015

Martin Bradley reports

The end of last term saw several interesting developments affecting the 30 hours funded places and Ofsted. The Childcare Bill going through the House of Lords has proved to be addressing a more complex issue than some appear to have thought. We are pleased that the Minister, Lord Nash, has been working with Lord True to resolve some of the concerns and MSA is due to meet the Minister in early September along with Lord True. We will keep you posted on the outcomes. In my view, many of the problems stem from poorly co-ordinated policies which come together to make a series of demands which cannot be easily reconciled. Thus we have the level of funding for two, three and four year old places not meeting the actual costs providers incur for the places. At the same time, the sector is being told to raise the qualifications of its workforce – something Montessori has enthusiastically embraced, seeing it as means of increasing both quality and credibility. Yet the implications for staff salaries have not been considered. Similarly the introduction of the 'national living wage' (NLW) from April 2016 is forecast to plunge the nursery sector into a deficit of 'hundreds of millions of pounds', according to the Pre-school Learning Alliance (PLA). We will keep you updated on developments.

Meanwhile Ofsted has launched its annual early years report and also its new Common Inspection Framework for Early Years inspections. The report shows a general improvement in inspection outcomes, and as such is welcome. However, having arrived early for the report launch, I was able to read through it and was surprised to see that of over 40 independent schools offering funded places for 3 and 4 year olds, 27% required improvement and 16% were judged inadequate – that is 43% of the total. The percentage is far higher than in any other form of provision. It also appears to run counter to the Chief Inspector's statement that middle class parents were 'colonising' the best quality funded places. I asked the question of the panel, the Chief Inspector and the head and deputy head of early years. I did not feel that they had latched on to this statistic and their answer was that it 'needed more investigation'.

MSA has been working with Ofsted since the start of the year on the development of the new inspection framework, as those of you who came to the MEAB conference this summer will know, when we had a leading HMI speak to us about the proposals. The aim of the changes is largely to bring early years inspection into line with inspections of other provision in schools and colleges. Despite my misgivings about what might emerge, the new framework and the accompanying Handbook (Early Years Inspection Handbook, June 2015, ref no 150068) are clear and have taken into account misgivings we had about some of their wording and former emphases. Now there is much more emphasis on children's development rather than their learning and strategies to promote this through direct teaching. Most important is the statement: "Inspectors must not advocate a particular method of planning, teaching or assessment. They will not look for

“Ofsted has launched its annual early years report and also its new Common Inspection Framework for Early Years inspections. The report shows a general improvement in inspection outcomes, and as such is welcome.”

a preferred methodology but must record aspects of teaching and learning that they consider are effective, and identify ways in which teaching and learning can be improved." That means that an inspector cannot just say 'I don't agree with Montessori', and also that there is the potential for judgements which imply this to be challenged.

The Handbook also states: "Where provision subscribes to a particular approach – for example, Steiner, Montessori or High/Scope – inspectors must be familiar with this method and respect any cultural customs. Where relevant, inspectors should state the type of educational or philosophical approach used by the provider in the report section, 'Information about the setting'."



This is a major step forward, although it still means that in your self-evaluation and other documentation, you will have to show that your planning, evaluations and assessments are consistently Montessorian. Inspectors also have to take into account any published information about the setting – in practice this has come to include MEAB reports, and the benefit of having this additional information about your work is made clear in many Ofsted reports.

There remain a number of issues. In my view many of these stem from Ofsted's time constraints and its desire to have the same type of inspection for small pre-schools as for larger provision for older children. Thus you will be offered the chance to make joint observations with the inspector (but be aware that can be used to assess the accuracy of your judgements about what is going on in teaching and learning). Inspectors will track two or three children, they must look at all Disclosure and

Barring Service records and paediatric First Aid certificates, safeguarding requirements must be inspected, and so on. The result is that although inspectors will always report on safeguarding compliance, they need not always report on all of the more than 30 possible judgements. This makes comparing inspection outcomes across different settings difficult, and it is not clear why some judgements are reported (unless non-compliance is an issue) and not others. It would be an interesting exercise to trawl through inspections conducted by several inspectors to see if there is a pattern of some frequently mentioning some judgements and not others, whilst another inspector might follow different lines.

Besides these issues, there remains the

concern which several MSA members have mentioned, whereby the feedback they received at the end of the inspection does not appear to match the report when this is published. This is largely due to Ofsted's quality assurance (QA) work which seeks to check, amongst other things, whether the wording of the inspector's draft report matches the judgement. Clearly if the QA change is to the wording, then the judgement remains unaffected, but if it is the other way round, with the judgement being changed, then the setting is in for a potentially nasty surprise.

Ofsted has also had to deal with developments, many of which came into effect since the 2014 revisions to the EYFS statutory requirements. The new handbook states that: "In addition to meeting the EYFS requirements providers must also comply with other relevant legislation. This includes safeguarding legislation and legislation relating to employment, anti-discrimination, health and safety and data collection." The difficulty we all have (including Ofsted) is to establish exactly what "other relevant legislation" might be. Also it may apply differently to different providers. Thus if you take 3 and 4 year old funded places, then 'Keeping Children Safe in Education' (KCSIE) applies, even though it directly refers only to schools and colleges. That is since other legislation around the funded places included the safeguarding issues. So if you don't meet the requirements, an inspector should refer directly to KCSIE. But if you don't take the places and do not meet the requirements, the inspector must make a more general statement about not meeting safeguarding legislation. This seems a minor and legalistic point, but the report could be challenged if the inspector does not get it right.

Another major change under the new framework which applies to all settings, schools and colleges is the far greater emphasis on the effectiveness of leadership and management. Previously this was the last set of judgements to be reported on. Now it is the first and includes not only the overall judgement on leadership and management but up to eight sub-judgements – previously there were five. In summary, leaders, managers and governors (where appropriate) must show an ambitious vision and high expectation of the children, improve staff practice through rigorous supervision, training and performance management, along with CPD, provide learning programmes and a curriculum to enable children to meet the EYFS and their needs and interests, manage the curriculum so that children get a good start and are



ready for school, if appropriate. They must also actively promote equality and diversity, tackle poor behaviour, actively promote British values, ensure that child protection meets all statutory and other government requirements, promote children's welfare and prevent radicalisation and extremism. Whilst this is a lengthy list, it is heavily influenced by the wider government agendas of British values and the Home Office 'Protect' policy affecting extremism.

I've commented in the past on inspection

sufficiently clear to the inspector. Often managers and leaders did not want to appear 'pushy' or over-confident. This is where the new leadership and management judgements must be looked at carefully to make sure that there are things like regular staff supervisions – a pattern of working more common in social services settings than in schools, but which might involve regular, minuted staff meetings, monitoring of new staff, developing leadership roles for SENCOs and so on. Parent surveys become more significant as a means of demonstrating that you accept comments from others and adapt where appropriate. The link between planning for individual children or groups and the subsequent assessment leading on to fresh activities becomes not only evidence for teaching, learning and assessment judgements but also as evidence of how far leaders are involved here.

I hope to post all the revised judgements on a blog shortly. I have collated them for some school inspectors and it might be useful for MSA members to have access to the charts.

Meanwhile I will update you on our meeting with Lord Nash at the Department for Education. Most importantly, do not lose sight of the joys of working with children and good colleagues, and above all, enjoy the autumn term.

“Another major change under the new framework which applies to all settings, schools and colleges is the far greater emphasis on the effectiveness of leadership and management.”

outcomes where schools and settings have not had an inspection for some while. Whilst not wanting to tempt fate, the reinspections appear to be restoring places to being at least 'good'. In several instances relatively minor points about presentation and how to manage an inspection seem to have been very effective – people were still doing good things, but not necessarily making them

Anne Mallinson is currently in possession of an oak sideboard that may have come from the flat that Maria Montessori stayed in at Prince's Gate (it is approximately 58" wide x 21" deep x 38" high, standing on 6" high feet, with two cupboards and two shelves).

The family have decided to put it up for auction – does anyone have a connection with an auction house or, indeed, be interested in putting in a bid themselves? Proceeds will go to MCI's Mallinson Library. Please contact Philip Davies (daviesp@montessori.org.uk) if you can help in any way.



Walthamstow Montessori supports good causes

Walthamstow Montessori School (WMS) had a busy week back in the summer, when two important charity events were held. On Friday 19 June children joined the UK's biggest charity event for Under 5s and held their 'Big Toddler' over Lloyd Park. Dressed as pirates they aimed to raise money for the



most vulnerable children in the UK. WMS families joined in the walk and together raised nearly £800 for Barnardo's. Lorna Mahoney,

Principal, commented on how "we love supporting this important charity and have been holding this event for many years now. We are very lucky to have such a fantastic park on our school's doorstep and very supportive parents."

Just a week later, on Friday 26 June, the school held its 15th Annual Sports Day at George White Playing Fields. The children enjoyed competing in the events although it was the spirit of the event that ensured fun was had throughout. The sun shone and parents joined in on the fun too culminating in fantastic parents' races.

Wendy Palumbo, Head of School said: "It was another fantastic sports day and a lot of fun. We always finish the afternoon with our traditional teddy bear picnic. This year the children, parents and teachers got a big furry surprise when Pudsey Bear arrived. We were very honoured that he was able to get to us in time as we know he is a busy bear. To show



our thanks and to raise money for Children in Need, our children were able to have a

photo taken with Pudsey, for a small donation. Together we raised £135.45." Responding to the event, a WMS parent said: "Thank you so much for organising school sports day. I enjoyed it so much and I was a proud parent to see my daughter participate and have fun. It was such a lovely experience and I think all the teachers did a great job arranging such a wonderful day."

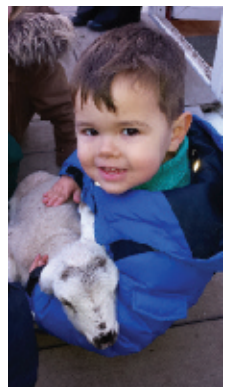


Lambs visit Clevedon Montessori School

Colour activities are exciting for pre-school children who are developing their chromatic sense. So we planned lots of things to do: there were games with coloured hoops to jump in, balloons to bounce, songs, and lots of creative art materials.

Children were asked to bring in primary colour objects to match the colour of the week. But when it came to 'black and white' week we all had a lovely surprise when Pippa's Mum asked us if we would like a visit from a black lamb and a white lamb. The lambs were being hand-reared because the ewe had given birth to triplets and had no interest in looking after these two. Some of the children were nervous at first but soon they all wanted a cuddle and to help to bottle feed them.

Just like the nursery rhyme the lambs came to school and they made us all 'laugh and play'.



A sad loss

Raju Surelia writes

On Saturday 9 May, Little Learners Montessori School in Solihull lost a valued member of staff. **Miles Reid**, aged 21, who was working part time with us studying for an Early years degree at Birmingham City University, suffered a heart attack whilst playing football with his twin brother and friends.

Miles was a very promising young student, extremely popular with both staff and children and we are still coming to terms with

his untimely death. Early years has lost a caring, bright and professional future teacher.

Children, staff and parents at Little Learners gathered together on Sunday 5 July, together with Miles's family and friends to plant a cherry blossom tree in his honour. Children helped to water the tree daily and we will see it grow and flower over the years to come. It gives us a focal point in front of our school to remember Miles by.

For more on this see www.birminghammail.co.uk/news/midlands-news/west-bromwich-albion-fan-miles-9592220

A Dad's Breakfast, French-style

The Little Language Academy and Chalfont St Peter Montessori joined forces on Friday 26 June to offer a French-themed Dad's Breakfast for the nursery children and the special men in their lives.

Dads, uncles and grandpas were invited to breakfast before school, which included pain au chocolat, croissants and brioche and the opportunity to spend some time with their children in the classroom. After a little play and explore, everyone made a circle and enjoyed French songs and stories together.

Debbie Lomax, Deputy Principal of the nursery and owner of The Little Language Academy which runs French classes at a number of venues in the local area said: "We offer Dad's Breakfasts every term for the children at nursery, but this time we thought we'd include a French flavour and put the dads through their paces in getting them to speak some French.

"They had to introduce themselves in French and join in with the singing with their children, who were very proud to show off their linguistic skills."

The children receive twice weekly French classes at the nursery, as well as a children's French Breakfast every Friday morning.



Picnic celebrates 20 years

Children, parents and staff came together this July to celebrate the 20th anniversary of **Weyhill Montessori School** in Haslemere. From small beginnings back in 1995, this nursery has since welcomed over 500 children and matured to become a vibrant and flourishing learning environment that has earned both MEAB accreditation and a rating of 'outstanding' from Ofsted.

This special occasion was marked with a treasure hunt and parachute games followed by a delicious picnic in the park and topped with cupcakes and helium balloons for all the children. It was a day full of fun and laughter, and we very much look forward to the next 20 years.



Up in Scotland

At **Mulberry Bush Montessori**, Killearn, tree climbing is amongst the skills that the 4 and 5 year olds have been learning for our initiative that started last August – the development of a Forest School. Over the ensuing year the children have been developing the abilities they will need for a day of learning in the forest: den building (including the use of saws and other tools to cut branches), whittling, being safe when using fire, climbing and general 'bush tucker' type skills. All this learning takes place around our extensive garden, but there have also been some practical experiences for our 2½ to 5 year olds during some half day sessions in the local woods.

In addition to developments like the Forest School, we received another excellent report from the Care Inspectorate (Scotland's version of Ofsted), which gives us an unbroken run since 2009 varying between the two highest awards achievable of 'Very Good' and 'Excellent' across all the assessment areas. Over the same time period we have received no 'Requirements' or 'Recommendations' from the Care Inspectorate Inspections, of which we are very proud.

Save the Children's Den Day in Hampshire

On Friday 5 June, children of Meon Springs Montessori in Bramdean, Hampshire had a day of den building fun to raise money for Save the Children. The children's efforts raised £150 to support the charity's work, helping them provide vital aid for children and their families in disaster struck regions.

It was great to see the children working together and using their imaginations to create their hideouts. Den Day was a fantastic way to teach children about important global issues, and made a great learning adventure.

Save the Children UK's Vicky Fallon said: "Millions of children around the world have no safe place to sleep; they might not have a bed, blankets or even a roof to sleep under. By building their dream den and raising money, pupils from Meon Springs took part in Save the Children's Den Day and will be helping to give children around the world a safe, warm place to dream."





From racehorse breeder to racecourse nursery

When Mary Brosnan was growing up on the family horse farm, a frequent visitor was John Warren, thoroughbred advisor to the Queen. Now Mary has opened a unique nursery school at the Royal Ascot racecourse, **Storybook Montessori School**. Horses feature in the daily lives of toddlers attending the school as the racecourse's stable door is right by the nursery.

Storybook, which already has 10 toddlers in attendance, has been specially designed to provide a learning space like no other. In addition to classrooms, the children have access to an internal area themed as 'The Village Green' with a space for activities including a 'Music Hall' for song and dance, dressing up in the 'Tailor Shop', and creativity in the 'Art Studio'. There is also a specially designed outdoor space to bring the classroom into the open air.

About Montessori, Mary says: "Movement



is key to this process, something you don't get with a static classroom, so I started thinking about

alternatives. I grew up in a small village in Ireland and this inspired the idea to custom build an environment that has a village community feel."

And on the subject of horses, "Being so close to the racecourse is a strange but wonderful twist of fate. In racehorse terms, the age of 2 years is when thoroughbreds hit their peak, so there is some serendipity in opening our first nursery here."

A Sunflower scarecrow

Thirty-seven schools entered their scarecrows in a celebration of history at this year's RHS Hampton Court Flower Show. Here we have a photo of **Sunflower Montessori Nursery's** double entry: Maria Montessori holding hands with a Sunflower child. They're obviously having a serious discussion about the best way to look after the flowers.



ROUND THE REGIONS

Region 4

Training sessions

Alison Barker reports

I have been able to visit more settings recently, and whilst travelling around the region I have seen a few schools that have increased in size to accommodate more 2 year olds and I am hoping to visit one or two new settings soon. Each year three training sessions are held in the region and I do hope that you will be able to attend at least one of them; unfortunately a charge of £10 per head now has to be charged due to increased costs but I am sure that you will agree that they are a bargain. The sessions for the year ahead are as follows:-

Saturday 26 September 2015 – 'Working with Babies' with Barbara Isaacs, to include preparation of a baby room, treasure baskets, and Movement and Language; at The Willows Montessori Nursery School, Ryton, Tyne and Wear, NE40 3QP

Saturday 14 May 2016 – 'Montessori for 2 to 3 Year Olds' with Berhane Dory at Wharfedale Montessori School, Near Skipton, North Yorkshire, BD23 6AN.

Saturday 23 April 2016 – Two topics will be covered during this session with Jeremy Clarke, 'Supporting Boys in the Nursery' and 'Exploring Science', at Chapel Grange Montessori Nursery, Wilmslow, Cheshire, SK9 2BU.

For more information about any of the events either contact me by email on alibarker@uwclub.net or I can be reached on 01748 821466. Places will only be reserved on receipt of payment.

I understand that many consultations are under way with Local Authorities regarding the proposed increase in Early Years Entitlement and I would be grateful if you can let me know the outcome in your area in order that I can share with others at national level.

Region 11

Sensorial experiences on a hot day

We all gathered on a swelteringly hot Saturday at the beginning of July in the beautiful surroundings of Lucy Smith's Sunflower Nursery in Saxmundham. The nursery is set on her husband's farm and truly demonstrates the meaning of free flow. The children are able to move between classroom, covered barn, greenhouse and other nooks and crannies without restriction.

We sat in the relative coolness of the barn for our training entitled Rediscovering Sensorial. Our speaker was Lynnette Brock from MCI who was engaging and inspirational. She struck the perfect balance between watching, listening, speaking and practical activities.

We discussed how sensorial experiences

were the key to healthy development, and how Montessori considered other senses in addition to the five regular ones. We discussed the ways in which the Montessori materials isolate and refine these senses as an extension of what a child may experience in their normal environment. There was also a video of a young child at the beach with his carer that prompted a discussion of how many different sensorial experiences they had, and a consideration of treasure baskets and using the Sensorial materials collaboratively and in different ways to the text book presentations.

After a wonderful home-prepared lunch which we ate in the garden under the shade of a mighty tree, we all designed new Sensorial activities in groups to extend and expand what we already had in our settings.

It was a wonderful day full of fun and laughter.



Yes you can teach music!



**Full
Support
Package
INCLUDED**

- No prior music training needed
- Musical activity cards included
- Online video support & advice
- 7 Early Years awards

The Sound Children approach is uniquely inclusive and accessible and is based on children and grown-ups exploring and learning together.

Sound Children's award-winning music-making Kits for babies and young children include a complete guidance and support package for practitioners.



**Nursery
Rhythm Kit
£99**



**Dream
Drum Kit
£129**



**Nursery
Starter Kit
£49**



☎ 0115 931 4513 ✉ sales@soundchildren.co.uk
www.soundchildren.co.uk

Order your
FREE Sound
Children
catalogue





Who should be Montessorian of the Year and Montessori Practitioner of the Year 2016?

Montessorian of the Year

Nominations are invited for the Montessorian of the Year Award 2016. This award will be presented at the next MSA National Conference at the Institute of Education, London.

The purpose of the award is to celebrate the work of a practitioner and their contribution to the lives of children and adults in the Montessori world, and to promoting Montessori actively and effectively in ways which have not been publicly celebrated already.

Applications should show how the nominee fulfils the following criteria:

1. The quality of their work as evidenced by other practitioners both within their own setting and from outside.
 2. The range of their work: impact on children's learning and lives.
 3. The range of their work: impact on families' lives.
 4. The range of their work: impact on other practitioners in their setting.
 5. The range of their work: impact on other practitioners outside their setting.
- Candidates should have been active in

Montessori work over a period of time and in fields which extend beyond their paid employment.

Montessori Practitioner of the Year

The purpose of the award is to celebrate the work of someone who currently works in a Montessori setting and who has made a significant contribution to the quality and work of that setting.

Applications should show how the nominee fulfils the following criteria:

1. The quality of their work with children and parents within their setting.
2. The range of their work with children.
3. The range of their work with parents.
4. The impact of their work on the quality of their setting.
5. The impact of their work on their fellow staff in the setting.

Candidates should have been working in a Montessori setting (either a UK MSA member school or a MEAB accredited International School) for at least three years.

Please note: members of the MSA National Council and employees of the Montessori St Nicholas Charity or Montessori Centre



*Carol Powell,
Montessorian of the
Year 2015*



*Emily ten Kate,
Montessori Practitioner
of the Year 2015*

International are not eligible for either of these awards.

If you would like to nominate someone for these awards, please send your nomination to Kristine Largo, MSA, 18 Balderton Street, London W1K 6TG, or by email:

kristine@montessori.org.uk by 8th

January 2016. Applications should include contact details for both the person making the nomination and the person they are nominating.



Surging ahead

This summer, MCI London saw a real surge in distance learning students undertaking the apparatus workshop. Every classroom was used, students arrived early and stayed late taking advantage of opportunities to use Montessori materials and activities, discussing their use, purpose and importance in supporting children's learning. The International Diploma students mixed with those who registered last September on the new Diploma in Montessori Pedagogy – birth to seven (Early Years Educator), and on Integrating Montessori Practice (IMP), the course designed for early years practitioners with licence to practice.

Many new friendships were forged and offers of help and support extended during the two week workshop as the students were preparing for their practical examinations. The final evaluations of the workshop spoke of enjoyment in being part of a large learning community dedicated to helping children to grow into respectful and considerate human beings.

An extended programme for workshops planned for the next academic year is on our website and can be found on <http://mci.montessori.org.uk/professional-development/workshops/>

PRIMARY NEWS

Looking to the future

Sarah Rowledge reports

On Friday 12 June a group of dedicated Primary heads were generously hosted by The Gower School to look forward and create a strategic plan for the coming academic year. Within the educational world we are definitely in the minority and it was empowering to sit together under one roof, knowing that together we will have a stronger voice.

The objective was to gather information about the CPD requirements of the staff body and to work out how we can increase awareness of the Montessori Primary sector.

We have committed to producing a joint poetry book, a 'virtual art gallery' and combining forces on an annual basis for our children to know and recognize that there are other children, their peers, in other schools around the UK who are part of a Montessori Primary movement.

Taking time out in the summer term is difficult and to travel to London a challenge for some, so I am truly grateful for the commitment shown and very excited about the plans for the future.

Changing plates

Philippe Fraser, Director of Mars Montessori, relates an example of how MEAB accreditation is bringing professional discussions to schools.

As part of our MEAB accreditation process the assessor suggested we start using real plates and glasses for the children instead of plastic ones.

We had been using plastic plates since 2000 and it had never occurred to us to change them. In fact, some years ago the plastic plates had started to look washed out, and without giving it any thought we replaced them with another set of plastic plates.

One of the advantages of accreditation, like an Ofsted inspection, is that it prompts self-reflection and a re-evaluation of established ways of practice. As soon as we heard the suggestion it seemed obvious. Why were we using plastic? Plastic is easy for the staff team as it doesn't break or shatter, and whole piles can be carried with almost no weight. However, we were missing an opportunity for the children.

Maria Montessori saw that very young children are frequently frustrated in their attempts to do things for themselves and



that what they need is to have specific exercises, as closely linked to real life as possible, that allow them to master the tasks that they see going on around them in everyday life. How does plastic achieve that aim? Quite simply, it does not.

At home most families use crockery and real glasses, and in restaurants children are very rarely served on plastic plates. We could offer children an experience that is rooted in the real world by switching to porcelain and glass.

In true Montessori style, we bought real things as inexpensively as possible so any breakages could be replaced.

Before introducing the new tableware, we used a morning circle time to outline the basic rules of use to prepare the children for the change. We explained how to look after

the materials and stated our expectations of how they would be used by the children. We explained how to carry a plate, how to scrape left-over food into the food-bin and how to place a plate in the bowl at the end.

We gave another recap to the children immediately before lunchtime.

As the children sat down and started serving themselves lunch, you could have heard a pin drop the room was so quiet. The children were wholly engrossed in the activity of serving themselves lunch and using the plates, and their behaviour and handling of the real plates and glasses was exemplary. They rose to the challenge of respecting the materials, showing us that they deserved the trust we placed in them.

In the six months since the change, we have only had one broken plate, and more recently one broken glass. When the plate broke, the little girl needed some reassurance, which we gave her. We explained that things break, and talked about how to sweep things up to ensure nobody gets hurt. When a glass was broken some months later, the boy who had dropped it knew what to do to clean it up with the dustpan and brush, and did not need any emotional support.

Reflecting on the change, we would encourage every setting to use real materials at lunch time.

CHILDMINDING NEWS

The Childminders Network

Andrea Dalling reports

We had another successful MSA Montessori Childminders Network meeting on Saturday 13 June in Surrey with 16 attendances. Our guest speaker Wendy Fidler delivered an interactive workshop on the therapeutic use of the sensory materials and how this aspect of handling and presenting the materials to the child can support and stimulate the freedom for movement and further brain development.

Our members also addressed lots of questions to Wendy about signs and symptoms of different developmental delays in children and how to support specific additional needs.

After our stimulating morning session with Wendy, the network continued the meeting by discussing certain aspects of home-based Montessori practice, including current government legislation and Ofsted requirements. In addition, the network looked at ways of supporting our members' continued professional development in order to help them to work towards MEAB



accreditation in the future. The group has also agreed on increasing the number of meetings to four within a calendar year, so there would be more opportunities for topical discussions and networking.

The MSA Childminder Network currently has 41 registered members.

The next network meeting:

• **Saturday 10 October 2015** from 10.00am to 3.30pm

Little Children's House 3 Green Field Drive, South Brent, TQ10 9QF 'Sharing/exchanging Montessori cultural ideas'

Planned meetings for 2016:

• **Saturday 16 January** – Apple Trees,

Redland, Bristol 'Sharing ideas for outdoors'

• **Saturday 12 March** – MSA Annual Conference, London – Childminders Network meeting for one hour after the conference concludes, when Barbara Isaacs will take our members through the MEAB S1 School Form and what to expect during the accreditation visit.

• **Saturday 25 2016** – Kleinkinder Montessori: Guest speaker to be confirmed.

• **October (date to be confirmed)**, Sonia Quinn's setting, London 'Where does the home take the child?' presented by Kati Mencer and Andrea Dalling



From vision to reality: celebrating the success of the new courses at MCI

Penny Johns reports

A year ago, in September 2014, MCI launched a range of new training courses supported by our innovative online virtual learning environment. There are now over 400 active learners enrolled on MCI's new courses including over 100 students who recently joined us for this September's intake.

MCI has always been proud of the diversity of its students, from young practitioners to more mature career changers, students from around the world with a wealth of different experiences and perspectives to share. Diversity may be less apparent in terms of gender, with the overwhelming majority of our students being female, however we are delighted that 16% of our new intake at MCI London are men.

The vision for the new courses was based on a set of core values and principles that provide a sense of identity, purpose and integrity for Montessori educators. While the vision for the new Diploma was inspired by the Academic Director at MCI Barbara Isaacs, turning this vision into reality came through the sheer hard work and dedication of MCI's academic and eLearning team.

MCI aims to develop reflective learners and practitioners, able to engage in contemporary early years discourse, to think independently, explore ideas, and to be creative. The evidence of our success or failure is our graduates, and we now have our first students completing the course. At the recent final practical assessments, examiners were moved by the confident and accomplished presentations of the materials, the ownership of knowledge, and the passion for Montessori that shone through in many of the discussions with the students.

Our very first student to complete the whole course, including professional placement is Ella Westerhuis, a Montessori practitioner who studied at MCI Essex, an MCI approved External Centre led by Michelle Wisbey.

Ella Westerhuis:

"I'm very excited to be a qualified Montessorian and am looking forward to the future. The course has increased my knowledge of the



Montessori ethos and philosophy and has made me into a more confident and enthusiastic Montessori teacher. The online learning environment is simple and easy to use, it has lots of information and resources which helped me with my assignments. It is also an easy way to get in contact with other learners to discuss ideas.

I have been well supported by my tutors in Essex, and I feel this course is a great lead into the Level 5 Foundation Degree in Montessori Early Years Practice. I would recommend this course to anyone who has an interest in the Montessori ethos and an enthusiasm to work with children. I feel this course has moulded me into the sort of practitioner that Montessori wanted us to be."

Integrating Montessori Practice course

We are also celebrating the success of the first students to complete the new 'Integrating Montessori Practice' (IMP): which combines online study with an apparatus workshop. The IMP was developed in response to demand from members of the Montessori community who wanted flexible, online training for staff who hold relevant early childhood qualifications but have not studied Montessori. We have found an increasing number of trained teachers also enrolling on the course. Tracy Pittendigh is amongst the first IMP students to complete the course.

Tracy Pittendrigh

"I thoroughly enjoyed this course. As an experienced early years practitioner working in a Montessori setting, I found this course just right for what I needed - professional development rather than a qualification. I found the course fitted in with my working life; you can take as little or as much time over the modules to suit yourself as long as it is completed within a year, which is ample time. I feel I now have a far greater understanding of the activities/materials and how they relate to the Philosophy. I most enjoyed the Apparatus Workshop which brought together all the areas of learning and showed how it links together. The presentations of the materials were outstanding and the tutors all took their time to explain and answer any questions. The online course is presented in a straightforward, easy to understand way. Support from my tutor was brilliant. I now feel more confident in myself as a Montessori teacher as a result of this course."



Diploma in Montessori Pedagogy course

What the students say about the new Diploma:

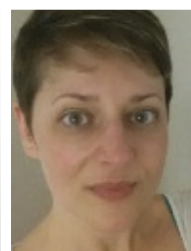
Claire Tullis (MCI London) "The passion, commitment and knowledge of the tutors continues to build my enthusiasm to work with children. I cannot think of a better place to study."



infectious enthusiasm from the experienced tutors, have been what's made this course so special."

Daniela Righi (MCI London). "The tutors work so hard to give us the best education and experiences. They are inspiring. Satisfaction can be felt 'in the air' because the atmosphere at the college is so positive."

Brekke Foster Friend (MCI London) "This is a transformative learning process. The community feeling both online and at college, together with the varied perspectives and



Randa William (Distance Learning)

"I would like to thank everyone involved at MCI for designing such a great course. The content, the delivery (through blended learning) and the professionalism, variety and experience of all the tutors has made it both an enjoyable and an inspiring course. The distance learning course joins students with wider life experience across the globe paving the way for the new generation of Montessorians. MCI is tenaciously building a legacy and community that Maria Montessori would be proud of."



What the tutors say:

"I have learnt more about Montessori in the past year than I have in 25 years of teaching"

Sarah Olley, Tutor, MCI London



"The new method of delivery has enabled students from across the globe to learn and grow together, sharing ideas and supporting each other."

Jeremy Clarke, Leader of eLearning at MCI.





An investigation of schemes and schema in emergent mathematics



Lynnette Brock and John Siraj-Blatchford report on the use of schema in pre-schools.

Most adults apply mathematics regularly in everyday situations; they may measure how many rolls of wallpaper to buy, order or weigh a specific number of items, compare sizes on clothing labels to decide whether something will fit or not. Yet many lack the confidence to evaluate the probabilistic risk of inoculating their children against a particular disease, or the choice between alternative financial investment opportunities. At a recent workshop, where a discussion about learning maths developed, several attendees said their understanding was limited and that somewhere they “got lost”, either in pre-school, primary or secondary school education, and expressed their reasons for a dislike or lack of enjoyment, thus feeling limited in their understanding of mathematics:

“I got lost somewhere at primary school ... I was okay at addition, but then I felt I must have missed a chunk of learning somewhere. In a test once I remember drawing a line between the two dots of a division symbol to make it an addition question – honestly, I had no clue when we had been introduced to that symbol and so all my work was wrong.”

“I didn’t feel prepared. Now I understand the importance of providing a foundation for maths, I believe that this is probably

where it all started to go wrong for me: I don’t recall using specific activities that supported my mathematical knowledge at pre-school.”

Children become discouraged when they are presented with challenges that they are ill prepared for. As Dweck (1999) has shown, if this continues children may then develop a ‘helpless’ disposition towards learning and begin to see their problem

with a mathematical task in terms of some personal lack of innate capability rather than recognising that they might be successful given further support and encouragement. They may also develop low expectations of success in any future related tasks (Dweck, 1999).

While children engage in prescribed activities in Montessori practice, as their skills advance, they will gain progressively given more freedom of choice and movement along with the time and space to repeat and explore activities. As Montessori (2012) suggested, this leads to enhanced concentration, self-esteem, and refinement of concepts and skills. Indeed, key to her pedagogy is the observation of children engaged in spontaneous activities; recognising that in order to effectively support learning the practitioner must have appreciation of children’s knowledge, interests and skills. Montessori materials are presented to a

“Montessori did not view mathematical learning in the early years as having a glass ceiling and appreciated that we should never underestimate a child’s potential.”

child at a time when the educator has observed they will benefit from it. Montessori did not view mathematical learning in the early years as having a glass ceiling and appreciated that we should never underestimate a child's potential.

Aligning with Montessori, Ryle (in Fisher, 2005) has argued that educators are too focussed on the achievement of basic skills, and that they should be looking instead at developing children's higher levels of thought, "Present mental ... capacities are only a shadow of what might be" (Fisher, 2005, p iv). It seems worthy of hypothesis that improvements in the early and progressive scaffolding of learning and support might improve mathematical performances significantly.

Yet any more directed approach to mathematics education in the early years is likely to be met with some resistance. If anything, practice might be considered to be moving away from this towards more intuitive, playful and open-ended 'discovery' learning through the encouragement of 'schema' development.

The increasing emphasis being placed on schema development in pre-schools stems initially from the pioneering analysis and detailed observations of Athey (1990; 2007), who made a significant contribution in applying Piaget's developmental psychology to early childhood education. 'Schema practice' in early childhood education might now be considered to involve the educator in at first identifying and then encouraging the child's "patterns of repeated behaviour" into which new experiences are then "assimilated and gradually co-ordinated" (Athey 1990, p37). In fact Athey did not just write about schema development, she also discussed the distinction made by Piaget between cognitive 'schemes' that provide the child with operational knowledge, and children's figurative 'schemas'. Athey (1990, p113-14) noted that research progress was being hindered by an ambiguity in the use of the terms and that the fundamental difference between operative and figurative thinking was "worthy of further study". But, for the purposes of her continued analysis, in contemporary 'schema practice', and in many other contexts, the terms continue to be treated synonymously. It is only in our current in-depth investigation of children's developing understanding of mathematics that we are beginning to find this distinction useful.

We have found that the best way to understand the issue is

to consider schemes and schemas to represent something like 'two sides of a coin', or two distinct qualities, one of form and the other of content, captured in each cognitive construction. In a thoughtful consideration of schema theory, Grenier (2009) draws attention to the findings of the *Cambridge Primary Review* of research evidence (Alexander et al, 2010):

"Piaget's recognition that children actively construct their knowledge of the world through their action upon it has been upheld. As Gosawmi and Bryant explain, the discovery of 'mirror neurons' (brain cells which fire both when a person performs an action and when they observe someone else performing it) indicates that sensorimotor knowledge is the starting point of cognitive development, but that it is augmented rather than replaced by symbolic representations 'gained through action, language, pretend play and teaching'" (p91).

In the following discussion and analysis we apply each of the terms as Piaget (1969) originally defined them. Piaget

considered schemes to be operative and schemas to be figurative and configurational. Athey provides the following example:

"It is operational thinking that enables the cook to estimate the quantity of ingredients, the sequence of procedure, the length of cooking time, degrees of temperature, and so on. Glancing into the oven after a certain time in order to see whether the cake is brown is simply a figurative check on operational accuracy" (Athey, 2007, p114).

Montessori recognised the need for operational thinking ("schemes") to be promoted; movement and activity is underpinned in her pedagogy and are facilitated by the materials she designed. Her identification of indirect aims arising out of use of her materials, suggest she was aware of the figurative knowledge (schemas) that would

emerge, although the word 'schema' does not appear in her works.

In our preliminary studies, Jack (3:6) was observed by his educator, over a period of two weeks, combining the Montessori Pink Tower and Broad Stair Sensorial materials to build different constructions. Many creations were recorded and one that was repeatedly built Jack named the "Eiffel Tower". This provided an indication that he might benefit from the Red Rods which were presented to him to provide



“Montessori recognised the need for operational thinking (“schemes”) to be promoted; movement and activity is underpinned in her pedagogy and are facilitated by the materials she designed.”

Continued on next page ►



► Continued from previous page

additional operational schemes that involved sequencing the rods by length using his hands and visual sense.

Following the Red Rods activity, Jack had worked with the materials in self-chosen spontaneous activity on four separate occasions.



In the following observation Jack appeared to be accommodating or experimenting with this newly acquired knowledge through another schematic operation, using his whole body:

SiteA14/03/15/10.15am -

Jack walked over to the Sensorial activity shelves in the classroom. He lay down next to the lowest shelf and turned his head to face the 'Long Red Rods' activity. He smiled, looked away, brought his legs up to his chest and turned his head again towards the Rods. He remained in that position for a short while then straightened his legs. He smiled, stood up and walked to where a practitioner was with a group of three children talking about Totem Poles.

Jack appears to be aligning his body with the Red Rods and adjusting his length by bringing his knees to his chest, suggesting he is developing his ability to compare length.

SiteA14/03/2015/10.40am. After leaving the group of three children talking, Jack engaged in a further activity, threading string through toilet rolls in a line. He selected the longest Red Rod, to be a measuring device, which he used to identify a 'long' piece of string.

This was evidence of a schema; Jack is clearly applying some verbal or non-verbal figurative knowledge of length.

This indirect preparation for understanding length can be seen to have been supported by the Montessori activity and materials, which appear to be designed with not only the isolation of the sense (visual discrimination), but also operational schemes and supporting schema (figurative knowledge) in mind. The Montessori sensorial materials provide a prescription for understanding later mathematical concepts.

Jack's case suggests that if we are to improve the scaffolding of learning and support and mathematical performance it will not be enough to simply respond to the observation of the child's schemes by presenting them with additional schema applications. We may need to consider progression in terms of scheme development as well. Athey (1990, p133) argued evidence of the incremental

development is in short supply, and "If more were known about the build-up of co-ordinated schemas and concepts, more would be known about how best to teach some of the key concepts of the curriculum right through schooling." (Athey, 2007, p114).

The Montessori Red Rods activity that Jack undertook provided schemes and schema which will act as 'developmental precursor' for more elaborate mathematical understandings related to length and measurement.

For both Jack and for his educator as well, there is a reciprocal link where knowing facilitates doing and doing facilitates knowing, as Neisser (1976, p56) explains: "The schema is not only the plan but also the executor of the plan. It is a pattern of action as well as a pattern for action."

The mathematics curriculum is itself an elaborate figurative schema and if educators are to understand what constitutes mathematical learning we need to consider these schemas and not just the children's most recently acquired schemes. As Wells (2015, p2) argues, "Mathematical & Scientific concepts are acquired as a result of deliberate and systematic instruction".

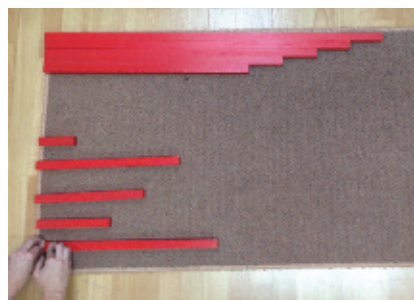
In her writings on Spontaneous Activity in Education, Montessori (1965) refers to children's intelligence in terms of being 'well versed' in a subject and, when speaking of culture, she talks about their learning associated with the compositions, and science 'of the period'. She wrote: "To be able to distinguish, classify and catalogue external things on the basis of a secure order already established in the mind, this is at once intelligence and culture." (Montessori, 1965, p205)

These are configurative (schema related, such as gaining an understanding of length) 'orders', that she refers to, which are progressively represented internally in the mind of the child, and which are also presented in authoritative

and established cultural products and texts. The common practice of applying the term schema to child behaviours that both Piaget and Athey clearly regarded to be schemes (such as the process of seriation using the Red Rods) may have served to limit our understanding of children's learning and, even more crucially, our understanding of how best to scaffold it.

The central task of our continuing investigations will be to test the analytical model further in our observations of children's learning, and to follow Montessori's lead by mapping the cognitive related schemes, and in defining progression to support educators in their scaffolding.

The authors are progressing their work in this area with a pilot study at The Gower School, a Montessori setting in North London. Funding is being sought to take their research further



“We have found that the best way to understand the issue is to consider schemes and schemas to represent something like ‘two sides of a coin’, or two distinct qualities, one of form and the other of content...”

and to support the development of publications and training materials to support practitioners within and beyond the Montessori community in their scaffolding of young children's operative schemes and figurative schema.

References:

Alexander, R. (Ed.) (2010) *Children, their world, their education: final report and recommendations of the Cambridge Primary Review*, Routledge

Athey, C (1990; 2007) *Extending Thought in Young Children*, London: Sage Publications

Dweck, C. (1999) *Self-theories: Their role in motivation, personality and development*, Philadelphia: The Psychology Press

Fisher, R. (2005) *Teaching Children to think*, Cheltenham: Nelson Thornes

Grenier, J. (2009) *Schema theory in early years education*, Blogspot, 23.11.09, accessed at: <http://juliangrenier.blogspot.co.uk/2009/11/schema-theory-in-early-years-education.html>

Montessori, M. (1965) *Spontaneous Activity in Education*, New York: Schocken Books

Montessori, M. (2012) *The 1946 London Lectures*, Amsterdam: Montessori Pierson Publishing

Neisser, U. (1976) *Cognition and Reality*, San Francisco: Freeman

Piaget, J. (1969) *The Mechanisms of Perception*, New York: Basic Books.

Standing, E.M. (1957) *Maria Montessori: Her Life and Work*, New York: Penguin Group

Wells, G. (1994) *Learning and teaching "scientific concepts": Vygotsky's ideas revisited*, Canada: University of Toronto

Lynnette Brock is an MCI tutor and **John Siraj-Blatchford** is an honorary Professor of Early Childhood Education at the University of Plymouth

A H Lansley

Business Transfer Agents

Established 1890

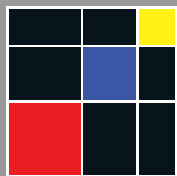
Specialist agent for sale, purchase and valuation of Montessori Nurseries & Schools throughout the UK.

Thinking of selling?
Contact us in strict confidence for an initial valuation.

transfers@ahlansley.co.uk

0118 9590271

www.ahlansley.co.uk



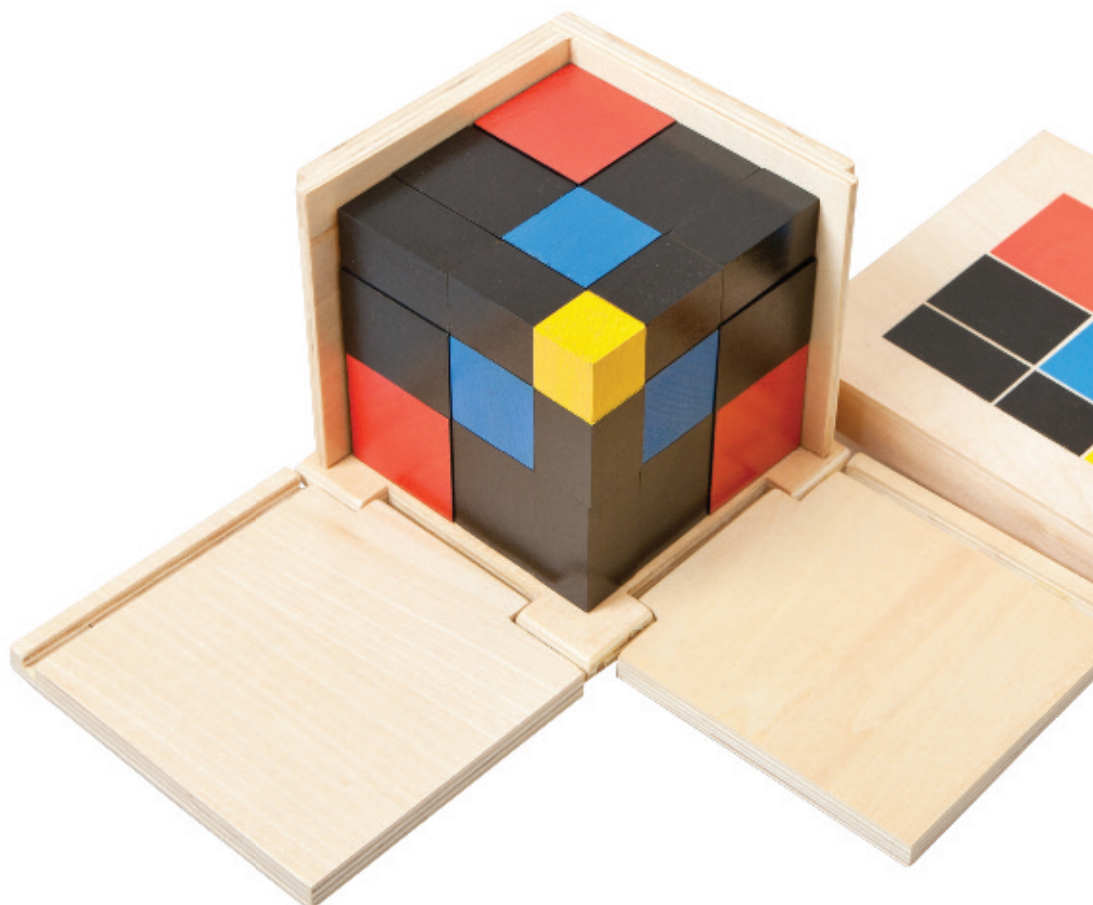
Absorbent
Minds
Montessori

Quality
Montessori
equipment for
all budgets

Nienhuis
distributors

Many new
products

For best prices,
please order
online with
free delivery
over £250
ex VAT



www.absorbentminds.co.uk



Maths in the great outdoors

Looking for ways to expand the range of maths activities in your outdoor environment? **Michelle Wisbey** outlines why these activities are important and provides some suggestions.

Resonating with the work of early years pioneers such as Rousseau and Froebel – as well as Montessori – there has been a recent resurgence of interest in the UK in the potential of the outdoor environment for supporting children's learning.

One of the central tenets of the Montessori philosophy is the connection with the natural world of the outdoors (Montessori, 1946). Children develop a curiosity about and a love for nature through having the daily opportunity to experience the outdoors with structure and purpose. They will use their hands in everyday endeavours focused on the earth and the outdoor environment around them, enabling them to be close to nature.

The outdoor favourable environment is as important as the indoor favourable environment, both working in unison as natural extensions of each other. To support the learning and development of the children effortlessly, we only need to look to see the opportunities the outdoors provides, both with resources supplied by the directress and resources supplied by nature. This environment brings with it nature's maths: the beauty of shape, symmetry, colour, classification, order, patterning and quantity.

This directly supports Maria Montessori's description of the mathematical mind: the impulse to produce order out of disorder. Dr Montessori borrowed this phrase from the works of Blaise Pascal, a French philosopher and mathematician, noting that he "...said that man's mind was mathematical by nature, and that knowledge and progress came from accurate observation." (Montessori, 1988, p169). Montessori described it as a mind that has the spontaneous ability to organize, classify and quantify patterns and relationships within the context of daily experiences. She recognized that the characteristics of the mathematical mind, order – observation,



precision and imagination – can be sharpened with careful nurturing, and nature provides us with the means to do this.

The Mathematical Mind is active in a young child from the very beginning: "In our tiny children the evidence of a mathematical bent shows itself in many striking and spontaneous ways" (Montessori, 1988, p169). The experiences we provide supporting the Mathematical Mind in the first plane of development helps to build the foundations on which all later learning will be built as the child's development proceeds. We are curious creatures: curiosity drives us to exploration of all types and to understand the world around us in all its aspects. This stimulates essential questions such as why, how, when and what, and this is the curiosity we need to embrace as this is the foundation for creative mathematical learning. Such questioning fuels scientific inquiry, the continuing quest for new, more accurate, or more complete knowledge.

Experiences within wild spaces are also vital to effective environmental education. When we talk about wild spaces, we are not always talking of forests and wood areas – consider letting part of your garden grow wild, replace some of your paved area with raised wildflower beds, give nature the freedom to create the outdoor environment for you. What you end up with may not be tidy but will be a great learning resource. The increasing interest in environmental issues has raised the profile of children's use of the outdoor space in terms of the potential for them to develop positive and caring attitudes to the wider environment (Rivkin, 2000). This rich, sensory, natural environment not only supports children's own investigations (Fjortoft 2004; Waite et al., 2006) but also provides an ideal context for group activities in which the development of knowledge, concepts and skills from across the

Continued on page 20 ►

A few ideas to get you started with a group of children outside

Build a den and then talk together about the shape and size of a shelter that could be built; how wide, tall, or long do we want to make it? How many people do we want to fit inside? Children can make suggestions for the size and use estimation. What size sticks do we need to collect? How many sticks will we need?

Create an obstacle course. Experience climbing up, around, on, under and over, and talk about size, height, and shape of obstacles. How many children can sit on them?

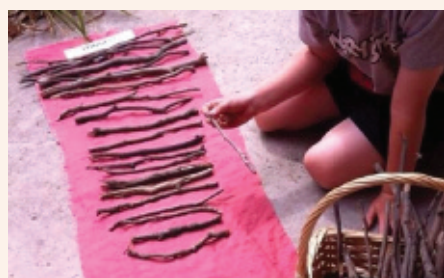
What patterns can be seen in the clouds? Are they changing? How are they changing? How fast or slow are the clouds moving?

Look at the shadows outside, and draw around the shadow made by one of the children. Measure the shadow outline and the child, and discuss the difference; repeat this in the morning, at midday and in the afternoon, and discuss these differences.



Wild area

- Games with grasses: how tall, how many different types, counting
- Games with flowers and sticks: counting, number of petals, different patterns
- Creating shapes and trails by walking through the long grass



Make a collection of natural objects, and then count them

- How many are there? (maybe in a spindle box kind of way)
- Sort them using their size and shape

Digging in the Sand

- How deep is the hole? (Depth)
- Measure using a ruler
- How many more spades to dig to the bottom of the sandpit? (Estimating)
- Can you shovel fast with a small spade or a big spade? (Time)



Hoist

- How high is the bucket?
- Lower the bucket.
- How much sand have you got in your bucket?
- Is it full or empty?
- Is the bucket heavy or light?

Obstacle Course

- Directional language (over, under or through)
- Positional language (forwards or backwards)
- Time taken to complete (stop-watch, sand timer)

Sand Timer

- Timing
- Turn-taking
- How does the sand get through the small hole?
- Different measures of time 2, 10, and fifteen minutes
- Time passing fast and slow

Moving Blocks

- How many blocks fit on a trolley? (Counting)
- Is it heavy to push?

Sand Moving

- How many more barrows to empty the sack? (Estimating)
- Is the barrow heavy or light to push?
- What makes it easier to move? (Problem solving)



Gardening

- Are there enough spades for every one? (Counting)
- Planting seeds (Counting seeds, planting in a row)

- Leaf shapes
- Growing (Size, shape)
- How much water do we need? (Estimating)
- Have they grown and by how much? (Measuring)

Guttering and marbles

- How far do the marbles roll?
- What happens if we change direction (Prediction and experimentation)
- What helps them to roll (Problem solving)
- Directional language



Leaf Sweeping

- How many leaves are in your barrow?
- How many leaves on your spade? (Counting)
- Are the leaves heavy or light?

Logs

- How many logs can you build up?
- Can you make them balance?
- Do you need to pull slowly so the logs don't topple off?
- What happens if you build too high? (Prediction and experimentation)

Bringing the inside out

- Children need the freedom to work with the material where they like
- Bringing the environments together to support each other
- Bring the physical and the academic together



**► Continued from previous page**

curriculum are embedded within authentic, purposeful and often real-life tasks. All of us in our settings will have the basis of Montessori philosophy embedded in our practice, but it is important to also remember that knowledge of children's development has been increasing over the years. We must use this knowledge to inform our outdoor practice as we support the children on a daily basis in their mathematical development.

Pratt (2011) argues that in order for children to become effective mathematicians they should develop a 'mathematical disposition'. This, he suggests, can be supported by the doing of maths outdoors, enabling children to develop an awareness that maths is all around them, allowing them to make connections in their learning and experiences of natural materials in situ. Knight (2011) suggests that children will become more creative outdoors where they have freedom to be "innovative, flexible and adaptable" and that this environment will stimulate creative mathematical thinking. When using the outdoors environment the children can construct on a larger scale, explore the world first hand and experience natural phenomena such as weather, the changing seasons and shadows (Maynard and Waters, 2007). Children naturally use mathematical thinking and learn mathematical skills as part of their outdoor experiences. They will count, measure, explore shapes and develop mathematical ideas through their imagination and creative play. They will extend their learning from indoors using nature's bounty. We should recognise the mathematical potential of the outdoors environment for children to discover things about shape, distance and measures through their physical activity – just look outside for a wealth of 'mathematical' resources that children can really get inspired by.

A quick guide to doing maths outdoors

The first tenet in developing children's competencies is Dewey's "children learn from doing" theory, (Mooney, 2000). In the outdoor learning environment children are active and interactive participants in their learning processes. Dewey thought that rather than saying 'the children will enjoy this', teachers need to ask the following questions when they plan activities for children:

- How does this expand on what these children already know?
- How will this activity help this child grow?
- What skills are being developed?
- How will this activity help these children know more about their world?

- How does this activity prepare these children to live more fully?

Exploring mathematics outdoors is beneficial as it will:

- Offer a sense of freedom without the constraints of the indoor environment
- Encourage a mathematical disposition and enable children to make useful links in their learning
- Be memorable in that it offers mathematical pursuits in a context not normally associated with mathematical learning
- Encourage exploration and risk taking
- Support emotional wellbeing
- Contribute to children's self-image of themselves as mathematicians

Conclusion

Maria Montessori recognised the scope for learning provided by nature – by using your vision you can provide the same opportunities nature does in the setting, even in the inner city.

When you look closely, the everyday living world is intriguing and magical, and full of awe and wonder: think of the excitement when a child finds their first ladybird, how many times as a child did you count the dots on the ladybirds back? Young children feel this need for exploration, discovery and creative learning strongly and we will have done our job if we can help them to retain this throughout their lives.

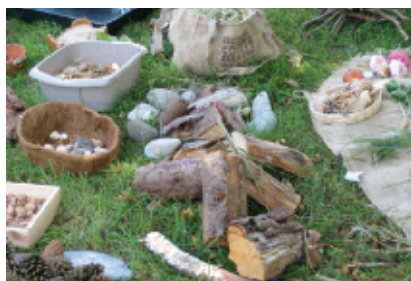
"The future will belong to the nature-smart—those individuals, families, businesses, and political leaders who develop a deeper understanding of the

transformative power of the natural world and who balance the virtual with the real. The more high-tech we become, the more nature we need." – Richard Louv

References

- Fjortoft, I. (2004) *Landscape as playscape: the effects of natural environments on children's play and motor development*, Children, Youth and Environments, 14(2), 21–44.
- Malone, K. & Tranter, P. (2003) *School grounds as sites for learning: making the most of environmental opportunities*, Environmental Education Research, 9(3), 283–303.
- Montessori, M. (1988). *The Absorbent Mind*, Clio Press
- Standing, E. M. *Maria Montessori: Her Life and Her Work*, Penguin, 344
- Tucker, K. (2014) *Mathematics through play in the Early Years*, Sage, London
- Waite, S., Davies, B. & Brown, K. (2006) *Five stories of outdoor learning from settings for 2–11 year olds in Devon* (Plymouth, University of Plymouth).

Michelle Wisbey has been working as a Montessori practitioner for 20 years and has just been awarded a MA in Early Years Pedagogy. She currently owns four pre-schools in Essex and one pre-school in Hertfordshire. Michelle is a qualified forest school leader.



This environment brings with it nature's maths: the beauty of shape, symmetry, colour, classification, order, patterning and quantity.



In the Children's House the study of geometry and number are essentially separate. Exploring the connections between them begins in the primary classroom.

There are several ways in which primary geometry can generate physical patterns for this purpose; for example the Geometric Sticks can be used to make a pattern with triangles, which later can be connected to a pattern of numbers (the triangular numbers), which have practical applications in networks, accounting, and the organisation of competitions.

Triangles are a plane figure with three sides; how can there be numbers which are triangular?

One way to demonstrate the connection is to invite a child to build triangles using the pegboard. When they can complete the pattern without tiring, they can be asked to count and record the number of pegs in each triangle; if counted correctly they will write the first ten terms in the sequence of triangular numbers; 1, 3, 6, 10, 15, 21, 28, and so on. This work involves a lot of movement of the hand and counting practice, but little pencil work, and so is suitable for a pupil in the first year of primary.

Later when practising the skill of addition, a child can be invited to sum (add together) the natural (counting) numbers thus; 1, 1+2, 1+2+3, 1+2+3+4, and so on. Some children will notice one easy way to do this, each time adding the next number to the total of the previous ones, rather than starting at the beginning each time. This generates the triangular numbers (try it yourself), and allows its extension as far as the child wishes to take it.

We are making a connection here between a simple rule and both a numerical and a geometric pattern; the rule, together with a starting point, generates the sequence.

Another geometric pattern, the Decanomial, basically a jigsaw puzzle made of 100 coloured rectangles, can be transformed into a representation of Multiplication Chart A by using bead bars. This makes a link between a property of shape and the numbers used to describe it, a first experience of the idea of area as a measure. When I showed one child this work recently, several others were attracted to it (despite the extensive recording required), so that for most of the term the material was in use.

Towards the end of their time in primary, children can be

introduced to the idea of a formula, which can be a description in the language of mathematics of the numerical patterns described above.

When introducing mathematical notation to my pupils, I always remind them that mathematicians work hard at being lazy; they always try to use as few strokes of the pencil as

possible, so every mark means something important.

To return to the triangular numbers, in that sequence which begins 1, 3, 6, 10, 15... each number in the sequence is called a term; so the second term is 3, the third term is 6, the fourth 10, and so on.

The formula is complicated to express in words; 'The first term is one, and each term is made by adding together the same number of natural numbers (beginning with one) as the number of the term.'

For example, to find the sixth triangular number, add together the first six natural numbers.

It's easier to use mathematical notation to write down how to make triangular numbers; first we need to say precisely what the symbols mean.

So, in the following formula 'T' will mean 'a triangular number', the little number directly after the 'T' tells which term in the sequence (T5 will mean the fifth triangular

number), and 'n' will mean any natural number you choose. The dots in the middle mean 'keep going until you are almost there.'

Expressed in mathematical notation, those words describing how find the 'n'th T (i.e. T_n) can look like this;

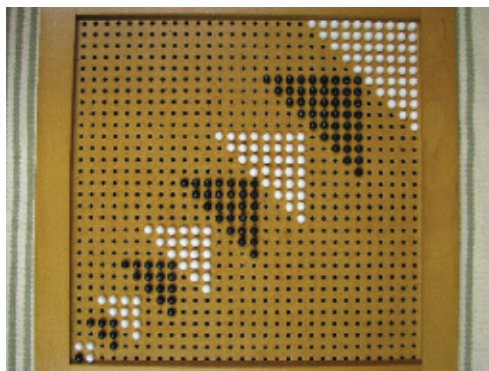
$$1+2+3+4+ \dots + (n-1)+n = T_n$$

or in a more compact way

$$\sum 1n (n) = T_n$$

(those of you familiar with spreadsheets may recognise the first symbol). It is read like this: "The summation (adding together) of all the numbers from 1 to the chosen number n will make the chosen triangular number". For example to calculate the eighth triangular number (i.e. n chosen to be 8) add all the numbers from 1 to 8.

Whilst not all children will travel this far in primary, the concrete representations will help when they meet these ideas again in secondary school, and the work done will help the understanding of the connections between numbers that is the key to success in arithmetic.



Geometry, numbers and a touch of algebra

Graham Lord describes a few ways to introduce mathematical concepts in the primary classroom.



You can count with me

Jeremy Clarke discusses the difference between young children's perception of quantity and number and how to support children in learning about the connection between the two.

When it comes to fostering a Montessorian approach in the home we are often able to focus on the practicalities. We know that providing a physical space to meet needs, and operating with calm and consistent routines, will enable children to have the best chance of healthy development. These aspects of growth cover such areas as physical development, sensory experience and social awareness. They are also tied intrinsically with the natural development of the child – that is to say they will occur to varying degrees no matter what the parent does. We manipulate the environment and provision to support as best we can. The same cannot be said for numbers. Does a new-born have any sense of number? If the idea of number can be separated from a sense of quantity then I would doubt that number is understood. Number is a human construction, and it is for this reason that the infant will not 'naturally' come to understand number, but it will need external support and guidance before comprehension of the concept is complete.

It is worth pointing out that children do have an 'in-built' sense of quantity that is believed to exist in not only humans, but many animal species. In research it has been seen that 4 month old babies showed surprise when the expected number of objects changed after being placed behind a screen and revealed again, whilst 6 months old infants were able to notice differences in quantity between groups of two and three objects, and between eight and sixteen objects. Although an essential building block to understanding, this sense of quantity is very different to how counting and numerals are used. Counting requires a grasp of single increments when

increasing quantity, whilst numerals are an abstraction of a quantity attached to a symbol. So the question is, how do we build on what children already have and enable them to comprehend our number system?

Before a child can count reliably they must understand that quantity can be represented by a number, and that when counting up (or down) as the quantity changes, so does the number. This idea does not always come quickly. A 2 year old may quite easily be able to give you one penny from a pile, but ask for two pennies and you may end up with a handful being handed over. For this young child the difficulty is with matching the idea to the quantity. It may take them another year or more to identify and 'count out' two, three, four and so on. From the age of around 3 years the child then begins to grasp integers. Now five becomes 'one more than' four, and six is 'one more than' five. Getting to this point requires repetition and consistency. The repetition serves to reinforce the new ideas of number names and their association with quantity, whilst the consistency is readily provided the number system itself – two is always two no matter what is being counted.

A great game for infants is peek-a-boo. It can be played anywhere and at any time, and by anyone. But how is this helping the child become numerate? This game is all about object permanence – understanding that objects retain their quantity and remain the same even if removed from sight. If your face remains your face even after being hidden, then a 'three' will also remain a 'three'. If you pull a funny face when you reveal yourself (hopefully to squeals of delight) then the child is seeing differences – again a key skill in spotting when quantity has changed.

Counting fingers and toes has always been a favourite of parents spending time with their precious little ones. It is also giving the child a very consistent introduction as the number of fingers or toes is the same each time they are counted. The rhythm of the words and the pattern of sounds may not be understood as counting, but the repetition will enable the child to draw on these memories and experience in the future. This also subtly reinforces the idea of counting 'one at a time'.

Similar to counting fingers and toes as there are always the same amounts, you could also count objects or sets around the home that remain the same.

Counting steps as you go upstairs works well here – there are usually between twelve and fourteen to go up one floor. This is something that can be repeated each time you go up and down with your child. The expectation of which number comes next, and the predictability inherent in this activity will also help reinforce the pattern. Objects that stay the same in quantity can be used regularly – two shoes, two socks, two plants on the windowsill and so on.

Anything can be counted really – the best thing to consider is how easy it is for the child to see clearly each individual item they are counting. Trees in the park may be spread out and clear, or bunched together. If they are together it may be difficult for the child to follow accurately what is being counted. Another issue can come up when trying to count moving objects as it is more complex to 'hold' the idea in your head of which object is attached to which number when counting. For example if there are three dogs in a row when you begin counting, but one dog runs to the other end of the line after you have said it is 'one' it can be confusing for the younger child who may count it again, or even keep the number one 'attached' to that dog. These developmental issues can often be clearly seen, and it is good to bear them in mind so you can best support the child.

As an understanding of number develops it can be beneficial to use this knowledge in everyday situations. This will help to both embed the concepts, and make them valuable to the child. For example, asking a 2 or 3 year old to put three placemats on a table ready for dinner will meet their need to be a useful and contributing member of the family. The task will require them to understand and be able to accurately

count to three but if this is only an emerging skill you can easily support them by adding 'one mat for each of us'. Having this secure concept (of how many people there are in the family) can help them translate this to the idea of number.

Further support to a developing sense of mathematical concepts can be given through songs and rhymes both in an obvious and also a subtle way. Singing 'This little piggy went to market' whilst touching each finger or toe in turn with the song can reinforce the one to one correspondence needed for counting. Counting up songs like '1, 2,3,4,5, once I caught a

fish alive' have numbers repeated in the correct order. Whilst this repetition may support a rote learning that does not have any back up to the meaning of those numbers, it is not used as the only learning method, and can support a greater understanding. Singing with 'props' can also support the child in making links, and can be a source of great enjoyment. Having five teddies on a bed (or a couch) and singing an adapted version of 'Five little monkeys sitting on the bed' is a great way to bring together the concept of counting down, the familiarity of the pattern and a hands-on approach to foster a deeper connection for the child.

They are the 'obvious' ways in which counting and number songs support children, but music and song can also subtly support the understanding of pattern and predictability. These are concepts that underpin the number system and can be delivered through song no matter what the lyrics are. A

repetitive melody allows the child to unconsciously make a prediction, and they will feel a (again, unconscious) reward if their prediction is correct. Both the repeated lyric and predictability of the activity helps the child be more secure in being able to say four comes after three.

As with all developmental support, patience and flexibility are key. There is no real benefit from being able to recite numbers without an understanding of the relationship with quantity, and for that to take place we need one to one correspondence. All of these take a varying amount of time for different children so as always we should follow the child, meet their needs and make number relevant to their own lives.

Jeremy Clarke is a father to two children, and is the Leader of E-Learning at Montessori Centre International.



“Before a child can count reliably they must understand that quantity can be represented by a number, and that when counting up (or down) as the quantity changes, so does the number. This idea does not always come quickly.”



Montessori on the Bosphorus: a Montessori cooperative in Istanbul

Hannah Baynham explains how the cooperative model is more than just a Montessori education, providing a meaningful and stimulating school experience for children, their families, and the community.

Our little garden was in ruins – the paint was chipping off the playhouse, the grass had died and the sand box was a place the neighbourhood cats would frequent. I started brainstorming how we could fix it, to make our outdoor environment truly child-friendly and inviting. Then I started having questions. What plants would be good in our shady garden? Where could I find sand? How do we make such a project affordable and realistic on our small budget? It was then that I called in our experts, the husband and wife team who owned their own architecture and landscaping firm. This is the major advantage of running a cooperative school. The parents are involved, and provide their own expertise, whether it is web design, marketing, finance, or even a culinary expert who plans the nutritious menu for the children. I have a panel of experts who have invested interests in the

success and wellbeing of the school and their children.

Montessori is a relatively new concept in Turkey. With only a few schools in Istanbul and Ankara, the Montessori method has not spread as widely here as it has in other parts of the world. Montessori Cooperative was started in 2013 when a

“Montessori is a relatively new concept in Turkey. With only a few schools in Istanbul and Ankara, the Montessori method has not spread as widely here as it has in other parts of the world.”

group of Turkish parents who ran a rotational playgroup began looking for alternative forms of education for their pre-school age children. When they failed to find the educational environment they were looking for, they decided to start their own. Through research, they came across the Montessori method, and found a

Montessori teacher to help set up the school. The three founding families then looked for other like-minded families to enroll their children in the program. They were interested in running the school as a cooperative, where families volunteered their time and talent to the daily operation of the

school. It is through this dedication that Montessori Coop began.

Montessori Coop is now a small, cooperative Montessori school for 20 children ages 3 to 6 years on the European side of Istanbul. Many children are of Turkish origin, while others are half Turkish, half Italian, or half American. Some are children of expatriates. The primary language within the school is English. Montessori Coop is run as a non-profit with the goal of creating a cooperative model that can be replicated in other parts of Turkey.

Montessori Coop's mission is as follows: "By forming a cooperative partnership between committed, caring teachers and involved, loving parents, we strive to create an

Maintenance and Gardening committee, to name a few. These committees require less time commitment, and are flexible depending on different parents' skill sets. Parents are also involved in the classroom: they come in to share a special talent, do lessons with the children, read books or give presentations on their countries of origin or their occupations. A parent also might come in to help with a special celebration or an outing. Parents are required to do at least two service hours a month – being directly involved in the running of the school they are actively involved in its success.

"Being part of a cooperative makes parents not just clients in their child's education but a part of it. It creates a closer and more sincere contact with the teachers. We feel part of all



environment in which open communication and mutual respect for one another are highly valued, and children, families and teachers feel at ease. We foster a sense of community and cooperative spirit in a safe and nurturing environment, enabling children to grow socially in friendships with children and adults."

Our aim is to create a community of families and teachers who can work together to promote the Montessori method in Turkey. The cooperative model aims to create more than just a pre-school where parents drop off their children, but rather builds upon parental participation in their children's education to ensure its sustainability.

Parents in the Cooperative are required to serve on either the steering committee, one of the parent committees, or to undertake classroom activities. The steering committee is responsible for discussing school issues, changes, policies and procedures, and requires the greatest time commitment. Parent committees are broken down into skill sets such as Menu committee, Marketing committee, and

that's happening. Getting involved with responsibilities of the school, being in closer contact with teachers and other parents makes it much easier to understand and be involved in what my daughter is up to at school. It is like a being a big family. I also feel, I have to admit, proud of the fact that I am part of her school. It takes more of your time as a working mom but still it is worth it."

Seda Samli Luis a founding parent of Montessori coop and mother of a 4 year old student.

Montessori Coop also works to promote education and understanding of Montessori within the community. The Coop hosts parenting workshops, which explore the philosophy behind the Montessori method and how the approach can be supported and used in the home environment. This year, with

the support of MCI, we were able to provide teacher training workshops, which introduced the method to over one hundred teachers and early childhood education professionals. We were also able to write and translate a book into Turkish about the

“ *The cooperative model aims to create more than just a pre-school where parents drop off their children, but rather builds upon parental participation in their children's education...* **”**

Continued on next page ►

► **Continued from previous page**

method. In June 2015 we were honoured when Barbara Isaacs, from MCI, came to speak about Montessori projects around the world at an event hosted by UNICEF in Ankara. In order to dispel the myths about Montessori and promote an understanding and even perhaps help influence early childhood education policy, Montessori Coop is dedicated to education and awareness. Our hope is to inspire people within the community to be more involved in their child's education process.

The most important focus of all education should fundamentally be the children. With a focus on quality education and providing opportunities for children to develop a love for learning through freedom and independence, Montessori Coop puts the child at the centre. The children notice and enjoy their parents' involvement in the school. Whether a parent helps in the garden, does activities with the children, or is involved in the behind-the-scenes running of the Coop, the children see the importance of their school. By having active parents and a supporting community, children are learning the value of education, and hopefully will continue to value learning throughout their lives. The families also get together once a month for a group outing, which helps further develop the sense of family within the school. Through the community, children are exposed to a wider range of interests and expertise.

The role of the guide, like any school, is to support and aid the children in their development, as well as building communication and transparency with families. At Montessori Coop, there is one head Montessori teacher, one qualified assistant Montessori teacher, as well as a Turkish-speaking assistant. In our English environment, it is important to provide enough support and opportunities for language development, since for most of the children, English is their second language. By establishing vertical grouping in the classroom, we see the importance in older children modeling behaviour as well as helping with language acquisition. Through the love and



Hannah Baynham leading a Montessori workshop in a low-income nursery for nursery teachers with the help of a Turkish translator.

cooperation between the administration, guides, and families, we all try to work together to provide a sensitive and evolving learning environment.

As the head guide, having had the privilege of working in many Montessori schools around the world, I can say that Montessori Coop is unique because we have created a sense of community and dedication by everyone involved. By learning from the past, and by embracing change and transition, I hope Montessori Coop will continue to grow and establish a model that can be replicated, not only in other schools in Turkey, but other places around the world. I believe Maria Montessori understood the power of community in her first school, Casa de Bambini, in a poorer quarter of Rome, which helped support working families. It was within this community, through the support of the families and the love for the children, the Montessori method was truly born. It is an enjoyable challenge to continue to build a working model that encompasses the Montessori philosophy, as well as making it more accessible through the power of community.

Hannah Baynham is the Directress and Head of Montessori Coop Istanbul, and a Montessori trainer and consultant. See www.montessoricoop.org or contact her at Hannah@montessoricoop.org

“Parents in the Cooperative are required to serve on either the steering committee, one of the parent committees, or to undertake classroom activities.”

Pictured right: A father leads a small group, discussing his home country, Greece.



BRIGHT IDEAS

Trees

Trees surround us in our lives, purifying the air we breathe and providing a multitude of precious resources for living creatures. It is my experience that botany captivates children's minds, and as teachers we should develop their knowledge of living organisms.

As part of my project on trees I have created an interest table, which supports children's 'natural curiosity... to learn through exploration and play' (Olpin, 2012).

The activities I created reflect my love of the Montessori philosophy and need for interesting activities to provide a multitude of learning opportunities:

- **Practical Life:** Transferring pompoms using the tweezers into apple shape tray. Links to EYFS: PHY: Uses one-handed tools and equipment (30-50 months), PSE: Can select and use activities (30 to 50 months).
- **Sensorial:** Using five long rods, matching them to the ribbon trunk of the trees and talking about the different lengths (shortest/tallest). Links to EYFS: M: Orders two or three items by length or height (40 to 60 months)
- **Mathematics:** Counting or estimating, the rings in a tree stump to see how old the tree was. Creating shapes with twigs, apple trees with fixed quantities 1 to 5, apple trees with loose quantities 1 to 5 (control of error: only enough velcro spots for the correct number of apples), Matching numbered apples to the correct amount of pips. Links to EYFS: M: Knows that numbers identify how many objects are in a set (30 to 50



These photos display the number activities in action; counting fixed and loose quantities 1 to 5.



A child working with the ribbon trees as we ordered them from the shortest to the tallest. We had some lovely discussions about the different parts of a tree.

months), Recognising numerals 1 to 5 (40 to 60 months). Counts actions and objects which cannot be moved (40 to 60 months).

- **Literacy:** Sequencing the story 'Ten Red Apples' By Pat Hutchins. Links to EYFS: L: Listens to stories with increasing attention and recall (30 to 50 months), Beginning to be aware of the way stories are structured (30 to 50 months).
- **Understanding the World:** Parts of a tree matching cards and booklets, tree puzzle, bonsai tree to discuss and take care of. Links to EYFS: UW: Can talk about some of the things they have observed (30 to 50 months), developing an understanding of growth, decay and changes over time (30 to 50 months), looks closely at similarities, differences, patterns and change (40 to 60 months).
- **Expressive art:** Wooden logs/stick imaginative play: ExArt: Constructing stacking blocks, vertically and horizontally, making enclosures and creating spaces (30-50 months), Uses available resources to create props to support role-play (30-50 months), Plays alongside other engaged in the same activity or plays cooperatively as part of a group to act out a narrative (40-60 months).

Jemma Howe

Reference

Olpin, J (2012) *Displays and Interest Tables*, Routledge: Abingdon.



BOOK REVIEWS

Art for Baby: colour

Curated by Yana Peel

The two previous titles in this series (*Art for Baby* and *Art for Baby: Faces*) are in traditional book format, but this one comes as a box containing four mini (11.5 x 11.5 cm) fold-out booklets. They are very stoutly constructed and laminated, and each one is devoted to a particular colour – red, blue, green and yellow.

Each of the booklets features twelve artworks that follow the colour themes, with a key to the featured works on the back page of each booklet. Yana Peel has selected an interesting range of abstract and figurative pictures, so there are different ways in which the images will appeal to young eyes.

The abstract pictures present bold coloured shapes and patterns, as in Josef Albers' superimposed squares in different tones of blue and yellow, or the interlocking curvilinear shapes of Bridget Riley's *Two Greens and Blue* (2000) and *Two Blues* (2003).



As a sort of intermediary there is Terry Frost's *Red, Black and White Movement* (1968) – I don't know what the artist's intention was, but there is no doubting how this abstract composition, with four simple shapes, immediately calls to mind a butterfly.

And so on to the figurative artworks, which represent in simple forms various different things, thus supporting early recognition and identification. Examples are Jeff Koons' big shiny sculpture *Balloon Dog (Red)*, Matisse's white cut-out birds against a blue background (*Les Oiseaux*, 1947), Lichtenstein's *Bananas and Grapefruit*, and Julian Opie's 2010 picture of a baby, *Dino crawling*.

So, all in all, a good starting-off point for babies, particularly if like me you are of the view that it's never too early to start looking at art. And on top of that, for each set sold in England, Wales or Northern Ireland, Templar Publishing and Yana Peel donate 10% of their royalties to the NSPCC.

Big Picture Press
2014, £14.99
ISBN: 978-1-84877-905-1
www.bigpicturepress.net

Reviewed by Philip Davies

The Storyteller's Way: Sourcebook for inspired storytelling

Ashley Ramsden and Sue Hollingsworth.
Foreword by David Campbell

The authors of *The Storyteller's Way*, Ashley Ramsden and Sue Hollingsworth, teach at the International School of Storytelling based in East Sussex, England and run courses primarily for adults interested in gaining storytelling skills and insights.

Their book is subtitled 'Sourcebook for inspired storytelling' as the authors consider storytelling to be "serious fun" and wish to show the reader how to craft interesting and inspiring tales.

Each chapter is arranged in sequence and designed to help readers "deepen their experience and make links with other related themes". They contain guidelines and exercises to practice and embed skills, with each exercise structured as follows: do, discuss, discover – the three Ds.

The titles of the chapters are: First steps, The Senses, Rhythm and Repetition, Polarities, Temperaments, Thresholds, Dynamic, Gesture, Gazes, Relating, Silence, Levels of language, Voice, Nuts and Bolts and finally. The Deeper Current. Each chapter has a variety of exercises to expand and practice skills designed to encourage discussion of feelings and impressions, which then promote individual insights and discoveries. Anecdotes are sprinkled through the text to amplify the reader's understanding and engagement. Each chapter concludes with "a cracking good tale" from a variety of storytelling cultures, including Chinese fairy tales and Aesop's fables.

There is much of interest in this book, primarily for those wishing to expand their storytelling skills to a professional

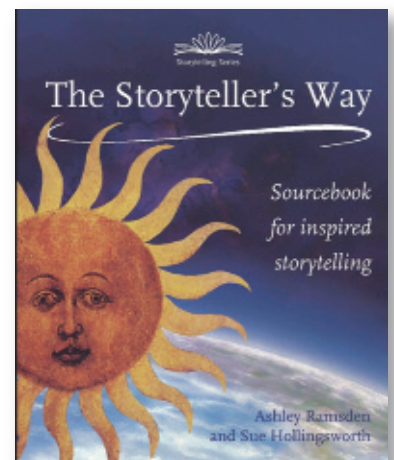
level for dedicated adult audiences. The chapter on Nuts and Bolts is focused on professional storytelling events.

Working through the exercises would encourage self-reflection and deep personal insights at the same time as crafting fascinating stories. 'Thresholds' for example encourages the reader to consider a time when s/he crossed a major threshold and life was immediately changed – getting married, starting a new job, death of a parent or becoming a parent oneself, and to weave a story about this emotional turning point in his/her life.

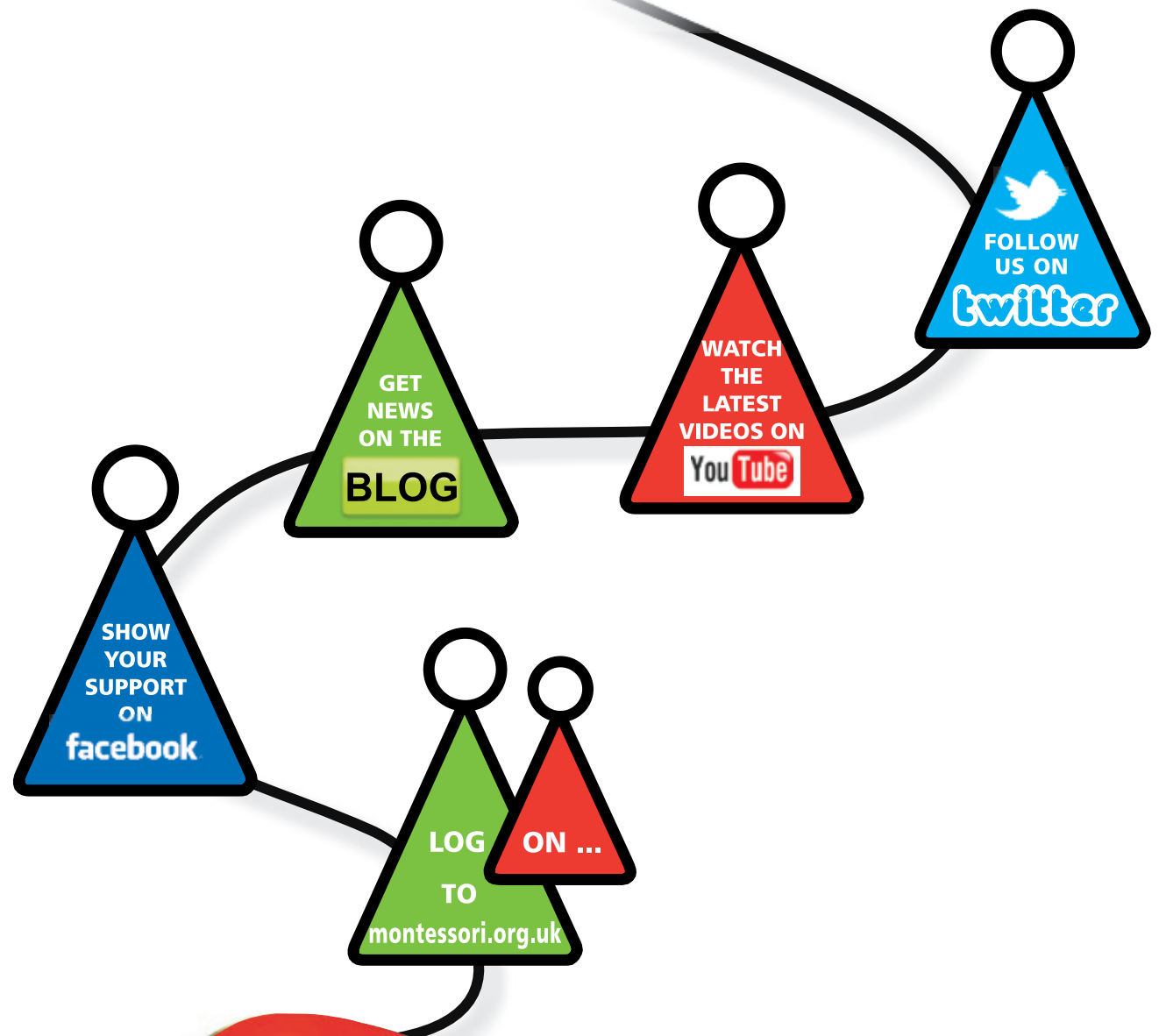
However, this title is not as easily accessible as *The Storytelling School* handbook reviewed in Montessori International issue 116 (p.35). The design of the book feels more like a textbook for a story telling course, which it may well be. The chapter headings are a little obscure and although the content is interesting and contains authentic anecdotes, it does not follow a clear and natural progression and is more than a little confusing. *The Storytelling School* has clear chapter headings that build incrementally on acquired skills and allows the reader to assemble their storytelling skills on an individual basis, whereas *The Storyteller's Way* is more didactic than autodidactic.

Hawthorn Press
2013, 224 pages, £20
ISBN: 978 1 907359 19 4
www.hawthornpress.com

Reviewed by Sue Briggs



JOIN US ONLINE



**A WORLD OF
MONTESSORI
AT YOUR
FINGERTIPS**

www.montessori.org.uk





ASK THE EXPERT



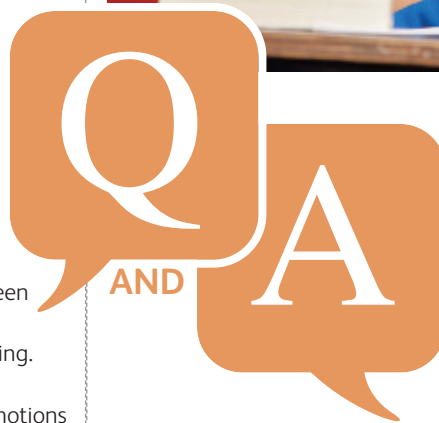
Lauren Colvin makes some suggestions for facilitating mathematical learning through practical experiences

My 5 year old child is having difficulty understanding different mathematical concepts introduced to him. Can you offer any advice on how to support his understanding?

Maths, like any other area of a child's learning, needs to be considered with the individual child's interests and ability in mind. Remembering that every child is different and learns at a different rate is crucial in order to support them effectively. The focus for children in this age group is to manipulate and play with objects so that they can develop clear links between their own environment and the mathematical concepts they are learning. Using opportunities during everyday experiences to explore some of these notions and introduce mathematical terms and language helps the child to relate to the ideas. For example, cutting fruit to share amongst friends is one of many situations in which different concepts such as halving and sharing can be introduced. Pouring drinks and water play present topics such as capacity and measuring. A child's understanding of quantifying can be extended and supported further through baking and cooking, as the child gains hands-on experience of weighing out ingredients and transferring them into different sized containers.

You and your child can explore numbers together in the surrounding environment. Pointing out numbers on buses, signs, houses and prices in shops help children to understand the importance of numbers and their many uses. Children love to take their real life experiences and explore them further through role play, such as pretending to be a shopkeeper or bus driver. When observing children within the classroom, it is amazing to see how much children know and understand about numbers when they are able to relate it to their interests and experiences. Singing songs and playing counting games such as 'Hide and seek' and 'What's the Time Mr Wolf' are other ways to reinforce numbers through repetition, pattern and physical interaction.

It is important that practical opportunities are available to children to initiate their own



mathematical learning through engaging in activities that interest them. Closely following and catering for a child's individual interests is another valuable way of engaging them in maths-related activities. Making and providing materials that appeal to a child will help to entice and support their learning. If a child, for example, enjoys playing with and learning about cars, then incorporating a car theme into number activities will help spark their interest. Board games with dice are also a fun way to explore mathematical concepts, such as doubling and counting forwards and backwards. Providing regular opportunities for children to engage in practical activities independently, such as sorting clothes into different colour piles for washing, setting the table, counting out cups and cutlery, all allow children to put their knowledge into practice within real life situations. The accomplishment of completing such activities independently helps the child to feel confident in their own abilities and equally trusted that you have faith in them and their abilities also. Children love to feel valued; involving them in the running of the house and paying attention to their aspirations makes them feel important and respected. Take opportunities to further explore a child-initiated activity. For example, when children collect objects from the park or beach, provide containers and ways in which the child can sort and count them out into different groups.

Maths at this age is heavily focused on concrete objects as opposed to abstract concepts. Montessori saw the importance of the manipulation of objects to aid the child in better understanding their environment. By engaging the use of the stereognostic sense, the child develops a mental picture through the use of touch and movement. Maria Montessori said: "When the hand and arm are moved about an object, an impression of movement is added to that touch. Such an impression is attributed to a special, sixth sense, which is called a muscular sense, and which permits many impressions to be stored in a 'muscular memory', which recalls movements that have been made." The stereognostic sense enables the child to develop a deep muscular impression of different shapes through feeling around 2D insets or manipulating 3D solids. Holding objects of different weight and size also enables the child to develop a real sense of what they feel like. The recognition of numbers can also be further supported in this way, through the child repeatedly tracing over the shape of the individual numbers to gain a muscular impression and understanding of both what each number looks like and its name. Only then will the child be able to order numbers successfully and recognise them at random. Concepts such as addition and subtraction make more sense to a child when they are able to physically interact with materials. Through their own actions and findings, the child is helped to make abstractions and distinctions in their environment, and is given the knowledge not through word of mouth, but through their own experiences.

All children can be successful with mathematics provided that they have opportunities to explore mathematical ideas in ways that make personal sense to them and the freedom to develop their understanding further.

INTEGRATING MONTESSORI PRACTICE

MCI has developed this professional development course for practitioners who want to integrate Montessori into their practice.

- Study flexibly online using our innovative online virtual learning environment over maximum 15 months
- Online support from dedicated tutor
- Includes 2 week apparatus workshop or Saturday attendance at our London college

ONLINE PLUS WORKSHOP



MONTESSORI

MCI regularly hosts **OPEN EVENTS** to provide further information on their range of Montessori courses.

Email: rupert@montessori.org.uk or telephone: **020 7493 8300** www.mci.montessori.org.uk



"The IMP course is a wonderful opportunity for professionals who wish to further their understanding of Montessori and enhance their practice." **Gabriela Roberts**

NEW CERTIFICATE HIGHER EDUCATION MONTESSORI EARLY CHILDHOOD PRACTICE

New for September 2016

- 1 year full-time Cert HE
- Meets the Early Years Educator criteria
- Professional placement in Montessori setting
- 120 University credits

STUDENT FINANCE AVAILABLE



MONTESSORI



MCI regularly hosts **OPEN EVENTS** to provide further information on their range of Montessori courses.

Email: rupert@montessori.org.uk or telephone: **020 7493 8300** www.mci.montessori.org.uk





The power of **music** and **song**

Singing and making music are important from an early age – **Caroline Crabbe** gives some tips on how they can be encouraged within the family.

Regular exposure to music and song is to be encouraged and celebrated as it can become a great learning tool for our children. Encouraging your little one to enjoy music is a great way of strengthening the bond between parent and child, but it also provides some very real benefits to their on-going physical and mental ability which will aid them in their early development prior to going to school and beyond.

The transition from pre-school to infant school is an important time in the early years development process. Your once 'babbling' toddler has grown into a little person, with their own opinions, ideas and conversations – not to mention a relentless thirst for learning. Music is universal, it appeals to all cultures, all ages and all abilities. It's also an important part of the school curriculum and it isn't difficult to understand why. Listening to music and actively taking part in singing, dancing or playing a musical instrument are all important in stimulating a child's learning curve and developing a range of physical and emotional skills which will benefit them now and later in life.

For instance, you can help to boost your child's language skills by focusing on nursery rhymes. It's no great coincidence

that popular nursery rhymes are quite repetitive – think about 'Row, row, row your boat' or 'Twinkle, twinkle, little, star' – the repetition is key to this process of creating linguistic building blocks upon which little brains can start to make meaningful associations and melodic experimentations via simple rhythmic patterns. The use of repetition along with actions will help to develop co-ordination, balance and speech development.

Even simple songs like 'The Wheels on the Bus' help children to learn about the world around them – vital in the transition to a new school environment. Singing songs with numbers in them can also help young children to learn to count; some traditional songs even contain elements of subtraction (Five Little Ducks for example) so you might not realise that your child is being exposed to some of the simplest forms of mathematics through music and song. Exploring concepts such as colours, animals, transport and even telling the time through song, will all help with your child's motor skills and general co-ordination as they prepare for school.

Try to ensure that any exposure to music is also accompanied with movement where possible. You'll recall how

“Some people believe that exposing a child to music will increase their intelligence and although this is not absolutely scientifically proven, what musical activities and singing can do is to help develop the processes that will give a child the tools it needs to investigate the world.”

many nursery rhymes come complete with a set of actions: ‘I’m a little teapot’ or ‘If you’re happy and you know it’ for example. Children can express themselves through movement long before they can verbalise. They also need to learn to hone their sense of balance and to control their limbs. Movement to music has also been shown to help a child express feelings and moods as they learn to interpret the music that they hear.

And finally, don’t forget about all of the social and emotional benefits associated with music; encouraging this kind of musical activity in advance of starting school can really help with self-expression and confidence in later life.

Some people believe that exposing a child to music will increase their intelligence and although this is not absolutely scientifically proven, what musical activities and singing can do is to help develop the processes that will give a child the tools it needs to investigate the world, such as language, self-confidence, creativity and social skills. All of these skills will be developed and fine-tuned during their time at school, so anything you can do to give them a head-start will do wonders.

So, if you would like to encourage more music-related time at home here are some tips to get you started:

- Sing with your child regularly, it doesn’t matter where or when you do it, just do it as often as you can.
- Don’t worry if you fluff the words or think you sing out of tune – the reality is, if you are enthusiastic about it then your child will be too.



- Make music actively – it’s not enough to just put on a CD; if you don’t interact with them, it will wash over their head.
- Don’t over-complicate things: young children respond best to easy uncomplicated songs and nursery rhymes.
 - Use simple actions – it is great fun and will help your child’s co-ordination no end.
- Make some home-made instruments to get truly musical – banging yoghurt pots together, or using a cardboard crisp tube with a handful of dried pasta makes a great shaker.

Caroline Crabbe is General Manager at Jo Jingles.

Jo Jingles provides music, singing and movement experience classes for babies and pre-school children from three months to five years of age. With nationwide sessions in more than 700 centres across the UK and Ireland and with over 90 franchisees, Jo Jingles offers well-established, structured classes that are fun, interactive and educational for little ones (www.jojingles.com).



Education & Special Needs & Disability Update

Cytomegalovirus (CMV) special edition

Wendy Fidler examines what is known about this potentially devastating virus and what can be done to protect pregnant mothers and their unborn children.

Cytomegalovirus infection, which can seriously affect unborn babies if the mother is infected during pregnancy, is part of the herpes virus family. If the foetus is infected it can have lasting and disabling consequences for the child's growth and development.

How common is CMV?

CMV is the most common infection passed from a pregnant mother to her unborn baby in the world. Two or three babies are profoundly affected by the CMV virus every day in the UK – that's nearly 1,000 babies every year.

Congenital (present at birth) CMV causes birth defects and developmental disabilities, including hearing loss, vision loss, mental

disability, feeding issues, sleeping issues, sensory issues, behavioural issues, cerebral palsy and seizures.

The virus, which is preventable with meticulous personal hygiene, is more common than Down syndrome, toxoplasmosis, listeriosis, spina bifida and cystic fibrosis.

Maternal CMV infection in pregnancy leads to foetal infection in 40 to 50% of pregnancies. Permanent childhood disabilities can result from infection during any trimester of pregnancy, but infection during early foetal development is likely to be extremely damaging.

How is CMV transmitted?

For a pregnant mother the most likely source of infection is contact with the urine or saliva of young children, commonly her

own children or those at her place of work. Prevention of CMV depends on good personal hygiene, especially hand-washing.

What are the specialists saying?

Michael J. Cannon, of the National Center for Immunization and Respiratory Diseases (USA), highlights the implications of a number of recent studies of the incidence, distribution and control (epidemiology) of CMV, and assesses the awareness of CMV amongst clinicians and the general public (in part) as follows:

- Congenital CMV results in a 'disease burden' that is substantial and severe;
- A high proportion of women in the United States of reproductive age are susceptible to CMV infection;

Amy's* story

I interviewed Veena Jethani-Ramrakhiani, multi-sensory impairment advisor at the Seashell Trust in Manchester about her former student. This is Amy's story:

Amy's condition had been caused by CMV, a viral infection which was contracted before her birth. She was born with a profound sensorineural hearing loss and visual difficulties, with further difficulties – cerebral palsy and gastro-intestinal problems – which compounded her problems. Amy's hearing quickly deteriorated in her early childhood.

It was never clear whether her gastro-intestinal problems had a link to CMV or whether it was an additional difficulty. The CMV virus is known to remain active and additional effects manifest at later times. Therefore there has been on-going support for regular active and constant management of coeliac disease with medication and a gluten-free diet.

Amy had a visual impairment, including squint and long-sightedness and wore glasses and her visual-motor skills were affected by her cerebral palsy.

Amy was also diagnosed with autism but this was questionable because:

- Her communication difficulties were impacted by her profound hearing loss. Furthermore her access to a communication system was fraught with difficulties in learning British Sign Language due to her motor impairments and visual problems;
- Her lack of eye contact was due to her squint;
- Her need for order helped her to be able to predict and anticipate her routines and her world which was necessary to her dual sensory loss;
- Her tactile defensiveness was due to the high level of medical procedures she had experienced.

Amy lost her hearing whilst still a baby; she had a cochlear implant and required individual support in using the implant and developing listening skills. Effective use of the cochlear implant required considerable long term active management, especially as Amy also had a range of complex additional needs.

Amy was identified as a deaf-blind child who therefore needed specialist support and strategies with consistency. It was important that she received support to develop her visual skills and listening skills using the cochlear implant from an early age and intertwined in this were the therapies to develop her physical skills. The appropriate support and intervention in place was not consistent which led to further delays in her sensory development, her lack of access to information, communication and mobility left her very stressed and anxious about her world.

As there was no consistent approach Amy rejected her cochlear implants leaving her with no access to sound. One of the reasons for rejection was that through extensive medical procedures at an early age she became tactile defensive and did not like to touch things or have things on her head. Intervention programmes were put in place to desensitize her from tactile input but due to the lack of a coherent approach it was not successful which meant she never tolerated her implants.

*Amy's name has been changed

Summary:

- It is clear that much more needs to be done to raise awareness about the potential threats to unborn children from CMV.
- There is a need for all the professionals involved with CMV-disabled children to work closely with each other when developing intervention programmes, for example the teacher of the hearing impaired working with the physiotherapists and speech and language therapists and so on. No professional can work alone with children who have such complex needs.

- Women generally have limited awareness and knowledge about congenital CMV;
- Most obstetricians/gynaecologists do not advise pregnant mothers about prevention of congenital CMV;
- Most pregnant women view CMV prevention messages positively.

CMV specialist obstetric gynaecologist Olivier Picone, University of Versailles, St-Quentin speaking this summer in Toulouse at the 'Journée de diagnostic prénatal' (12 June, 2015) reiterated what he has suggested for some years, that the incidence of CMV infection can be reduced by as much as a quarter by respecting fairly simple rules of hygiene with children under three years of age.

Why then, we ask, are so many mothers putting the healthy development of their babies at risk?

How can transmission of CMV be reduced?

The charity CMV Action suggests a simple 'Don't share, wash with care' four-step approach which midwives can share with pregnant mothers:

- Don't share food, cups, or utensils which have been in an infant's mouth. Don't suck



a baby's dummy to clean it;

- Try not to kiss young children on the mouth or cheek – kiss them on the head or hug them instead'
- Always wash your hands thoroughly – use soap as well as water – after coming into contact with bodily fluids, including tending

to cuts and grazes, nappy changes or wiping a child's nose or mouth;

- Always thoroughly clean anything, such as baby changing surfaces and feeding utensils, which have come into contact with bodily fluids.

Contact: wendyfdler@eight29.com

Resources/Bibliography:

Cannon, Michael J. (2009). Congenital cytomegalovirus (CMV) epidemiology and awareness. *Journal of Clinical Virology*, Dec 2;46 Suppl 4:S6-10. Epub 2009 Oct 2.

We need to talk about CMV, June 2015, CMV Action

http://cmvaction.org.uk/sites/default/files/we_need_to_talk_about_cmv_2.pdf accessed 11.08.2015

Put your hands together, March 2011, CDC Podcast

<http://www2c.cdc.gov/podcasts/player.asp?f=10109> accessed 11.08.2015

The Seashell Trust: www.seashelltrust.org.uk



QUALITY MONTESSORI MATERIALS & FURNITURE

Offering children the highest quality products consistent with Maria Montessori's philosophy which enables them to grow in complete freedom.

A family run business providing a tailored, personal, and professional service to all educational establishments.

For further information, please contact us:

www.lifelonglearningmaterials.com

01622 236166 | charlie@lifelonglearningmaterials.com

...Inspiring Education



Proud and chosen UK distributors for:



heutink.
international
WELFARE CULTURE EDUCATION

John Clarkson reports on disagreement between researchers and the debate about ICT and phones.

Can you believe what you read in a research study? There are all sorts of reasons to be sceptical; ignoring deliberate and outright fraud there must be many cases where researchers have gently massaged their results (cutting out odd freak cases for example) to fit their theory better. There are also many cases where researchers disagree on the interpretation which can be put onto the facts. Recently a rather public spat between two Oxford professors (Gunter, n.d.) highlighted disagreements between them over whether, or how far, internet use affects children's brains. This was actually a continuation of an earlier dispute over whether internet use might be a causal factor in the recent rise in cases of autism. The dispute was featured in the newspapers as one of the protagonists was the high profile Baroness Susan Greenfield, formerly the director of the Royal Institution.

Is reading believing?

More serious is a situation that is only just being publicised, and that is that serious and reputable research results often cannot be replicated at all. Brian Nosek, professor of psychology at Virginia University and co-founder of the Centre for Open Science, organised a team of 269 researchers to replicate 100 research projects published in three major journals (Open Science Collaboration, 2015). In the original research papers 97% reported significant results, in the replications only 39% did. These figures were seized on by the media and publicised around the world. However when Nosek combined the figures from original and replication data, the success rate went up to over 60%. But that does leave nearly 40% at variance and in no less than 15 cases the replication actually found the opposite effect to the original claim. This does not only apply to psychological research, a recent study (Begley and Ellis, 2012) found similar result in medical research.

So who do you believe? This situation does make it very difficult for teachers and directresses to be sure that they are basing their classroom practice on a reliable basis. One approach is to ignore it all and base practice on what worked or was recommended in the past. The problem is that new and important insights may be overlooked. Dr Montessori herself made it very clear that she took pains to ensure that her method was kept up to date with recent research. In the introduction to *The Discovery*

of the Child she commented "Times have changed, and science has made great progress, and so has our work."

The vexed issues of ICT and smartphones

All this is particularly relevant in the field of ICT and its place in the prepared environment; a particularly controversial issue in the Montessori world. Sincerely held views range from those who will not have anything remotely computerised anywhere near their charges, to those who embrace each latest new development with uncritical enthusiasm. Research cannot provide definitive answers, for the reasons given above, but a number of interesting studies have been published recently, some of which may give pause for thought.

A team of six researchers from the University of Montreal (West, 2015) found that habitual video game playing led to an increase in the brain's grey matter in the caudate nucleus (an area which is associated with rewards and addiction). Previous studies have shown that grey matter in the hippocampus (which controls memory, learning and emotion) and the caudate nucleus vary together but in opposite directions. So if gamers' caudate nuclei are growing their hippocampi are shrinking. This could have serious consequences in later life (though that is not proven by this study).

Microsoft have recently released a report they commissioned (Gausby, 2015) on the effects of high-tech gadgets like smartphones. Their most alarming finding was that attention spans were decreasing, and by as much as 33% over the last 15 years. Admittedly the ability to multi-task has increased but one must ask if the cost is worth it. It is common experience that children's ability to concentrate (which is critically dependant on their attention span) is decreasing. It means that, with an average attention span of eight seconds, goldfish (nine seconds) are better now than the average human at attending to a stimulus. Sadly though, Microsoft commissioned the research to help advertisers deal with the new situation, not from any altruistic desire to promote education.

There is actually relatively little hard evidence that ICT really helps in the educational process. The respected Organisation for Economic Co-operation and Development (OECD) – an organisation of 34

countries committed to democracy and the market economy – recently carried out a study into the effects of computers in schools (largely secondary pupils but it is not unreasonable to suggest that the findings apply to earlier age groups). They reported "The results show no appreciable improvements in student achievement in reading, mathematics or science in the countries that had invested heavily in ICT in education. And perhaps the most disappointing finding of the report is that technology is of little help in bridging the skills divide between advantaged and disadvantaged students."

Furthermore, part of ICT is the use of microwaves for wi-fi. This is also highly controversial. For some time Dr Erican Mallory-Brown (reviewed in Waters, 2015) has been arguing that a slew of childhood complaints, ranging from headaches and fatigue to autism and early onset Alzheimer's, may be linked to microwaves from wi-fi and mobile phones. She admits that there is no hard and fast proof, but a five year old's body will absorb up to 60% more microwave radiation due to their thinner skull bones and greater proportion of water in their bodies. This is not just one odd alarmist; in France a new national law, the Regulating Electromagnetic Field Exposure law, has been passed banning all wi-fi from nurseries and limiting it in schools. It might be sensible for nursery owners to access the reference quoted as it includes a number of sensible suggestions for reducing microwave exposure to the very young. We owe that to our charges.

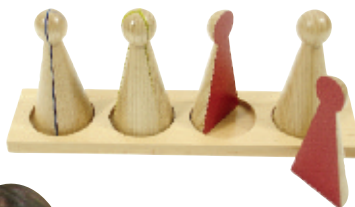
References:

- Begley, C. G. and Ellis, L. M. (2012). Drug development: Raise standards for preclinical cancer research. *Nature* 483: 531–533
- Gausby, A. (2015). Attention Spans. Consumer Insights, Microsoft Canada. Available from www.microsoftadvertising.com/research.
- Gunter, B. (n.d.). Very Unacademic Dispute. Accessed 15.09.15 from <http://www.themediaprof.com/>
- OECD (2015). *Students, Computers and Learning: Making the connection*. PISA: OECD Publishing, accessible from <http://dx.doi.org/10.1787/9789264239555-en>.
- Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, 349(6251), aac4716. DOI: 10.1126/science.aac4716.
- Waters, F. (2015). Is wi-fi making your child ill? *Telegraph Weekend* 09/05/2015 p.W5
- West, G.L. (2015). Habitual action video game playing is associated with caudate nucleus-dependant navigational strategies. *Proceedings of the Royal Society B* DOI: 10.1098/rspb.2014.2952.

TOWER HIGH LEARNING

We are a growing materials company based in Nottinghamshire, selling Montessori products to parents, nurseries, schools and childcare providers at affordable prices. Our equipment will help you to create a favourable learning environment at home or at nursery.

10%
DISCOUNT
ON FIRST
ORDER*



- Tower High Learning is the Equipment Supplier Partner to Montessori St Nicholas
- Free shipping for UK orders over £250
- *Special offer - 10% discount with coupon code 'I-luv-THL' at www.towerhighlearning.com
- Fully trackable reliable shipping

*Offer expires end of 2016

Follow us on Twitter to get regular updates on what we are doing and the offers we are running.

email: info@towerhighlearning.com



Towerhighlearning



Towerhighlearn



Tel: 01623 723 089

towerhighlearning.com



Mathematics and young children with special educational needs

Kathryn Solly reports...

What is mathematics in the Early Years?

Mathematics is an essential piece of understanding, which includes these areas:

- Number
- Shape, space and measurement
- Data handling
- Problem solving

Maths for Children with Special Needs:

Children start learning maths from the day they are born, starting with similarities and differences in everyday things around them. Teaching mathematics to a child with SEN is no different to teaching any other child. Children need to acquire the 'know-how' skill of applying maths to everyday life starting in their home experience and through their experiences in nursery and school in a variety of contexts. It can be best achieved by play and experiences, which allow practical investigation over time replicating the real world. There are many factors that affect a child's understanding of maths. Some children may have physical or sensory difficulties, others may just lack experience, confidence and opportunity.

Developmentally the best methods for encouraging children's maths skills are:

- Using concrete materials and a 'hands-on' approach
- Promoting discovery through exploration

“There are many factors that affect a child's understanding of maths. Some children may have physical or sensory difficulties, others may just lack experience, confidence and opportunity.”



- Posing questions which encourage involvement
- Promoting problem solving skills.

However, children will probably need some additional support which can be achieved through a multi-sensory approach and rich provision indoors and out, either alone, in pairs, or small groups with a practitioner. By being actively engaged in play-based learning – such as stretching into a long, narrow shape or making yourself into a sphere – gives maximum learning opportunity. Some children will become very engrossed and will need advance warning that an activity will be ending shortly to avoid upset.

Children with SEN need the following:

- start with their interests,
- practitioners interacting with their learning,
- play, and
- social interaction.

This can be achieved through day-to-day activities and routines with large amounts of time and space given to play. Through good quality provision indoors and out children can develop sound understanding as they explore materials,

as Goldschmied (1990) illustrated with babies and toddlers in her heuristic play treasure baskets.

Developing concepts:

Basic concepts are words that depict location (i.e., up/down), number (i.e., more/less), descriptions (i.e., big/little), time (i.e., old/young), and feelings (i.e., happy/sad). Children's

understanding of basic concepts is important for school success. These are usually acquired during his/her early years, and are learned mainly by participating in hands-on experiences, listening to adults, and by following instructions. They also help children become more effective mathematical communicators.

There are five classifications of concepts. These are spatial (location), temporal (time), quantity (number), quality (description), and social/emotional (feelings). Generally, children learn the concept with more distinctive attributes first. These include size, texture, quantity, emotional state, physical attributes, and so on. For example, since the concept 'thick' has more size than 'thin', this is called a marked concept. These basic concepts also help build early reading skills, strengthen a child's vocabulary, and are building blocks of learning for life.

For children who have difficulty understanding and using basic concepts, using real objects works best. Start with a box of objects and let the child explore and discover for him/herself. Then give the child simple directions linked to basic concepts. ("Put the spoon in the cup.") As the child progresses and develops greater understanding, allow him/her to tell you things to do. Remember, however, that a child must have a firm grasp of the concepts receptively before using them expressively.

Make it meaningful:

Quality learning is often incidental and informal and occurs throughout a setting through continuous provision. This does not mean it is unplanned or unsystematic. Examples of fostering mathematical learning:

- Comparison – by putting different objects in a paper bag (an orange, soft toy and keys, for example) to discover which one is larger, heavier or softer.
- Sorting and classifying buttons by colour, shape, texture, size or number of holes.
- Patterning – What comes next in making a coloured pasta necklace?



“For children who have difficulty understanding and using basic concepts, using real objects works best. Start with a box of objects and let the child explore and discover for him/herself.”

- Meaningful counting – one at a time with birthday candles, pairing socks.

Practitioners must be attuned to helping children hear the correct language/terms in their play to connect to mathematics.

Maths must be meaningful to children so it starts from play experiences such as:

- Playing with toy animals in a farm finding fields and barns for them
- Looking forward to your next birthday
- Guessing how high a bird is flying
- Growing a pumpkin
- Putting away toys in the correct places
- Building a house that the wolf cannot blow down
- Making fruit salad
- Printing patterns on fabric with potatoes
- Filling different sized bottles with water
- Making sandcastles with different containers

Number and counting:

Basic number concept involves the understanding of how many objects are associated with a particular number. Children with special needs often struggle with the concept of numbers. Use numbers frequently in play, to help the children practice: ask a child if they can give you four crayons, or plan an activity where the child has to use four bricks to create a structure and then four play people to go in it.

The use of multi-sensory Numicon shapes and number rods also provide the concrete imagery that the child needs to develop an understanding of the value of numbers.

Continued on next page ►



► Continued from previous page

Books and games:

A lot of childhood books and stories teach early maths concepts. If the concepts are not stated directly within the text, the illustrations lend themselves to teaching a variety of concepts. Start by using an illustration and saying, for example, “Where is the cat?” “Is it on the bed or the floor?” Then, allow the children to tell you what is off the bed. Extend further by going around the room finding things that are on or off the floor.

Playing the game, “I Spy” using the developing concepts in your clues is helpful. Say, “I spy something that is empty.” For more practice, encourage the children to use concepts when it is their turn. This game is great to use one-on-one, or as a group.

Simple games using dominoes, dice and card – games such as Snap – will also increase children’s knowledge, confidence and promote enthusiasm to keep on learning.

The importance of singing:

Research has shown that time spent reciting numbers through singing and rhymes, and playing counting games help children to make sense of and understand the number system. The repetitive sounds in counting and finger rhymes also help them to participate.

Children also talk, play and discuss the names and concepts in their play. This talk must be built upon children’s experiences. It is as important for children who do not yet talk, as well as those using recognisable words, where practitioners pause in the song. This gives time for a reply, which can be modelled by the practitioner giving an opportunity for imitation. This choice allows children to acquire a wider mathematical vocabulary.

Using life experiences:

A few children will grasp the concept of larger numbers quickly but all will learn most from ‘playing’ with maths concepts. Going out and about drawing children’s attention to numbers all around them whilst encouraging them to record them in a variety of ways, so a camera, clip board and pencil can be helpful too.

Real life experiences are absolutely essential in order to extend and develop children’s understanding of the world. Experiences such as going shopping, hanging out washing or going on a bus can provide potentially rich mathematical experiences.

Activities such as cooking – with its range of fine motor skills,



scientific concepts, language and vocabulary, sharing, planning, following a recipe, hygiene and sensory experience – are useful too. Mathematical development will only come about if the practitioners exploit the mathematical possibilities and elements involved, as in the number of spoonfuls, how many eggs, weighing flour or halving butter, and so on.

Routines and resources:

Using resources that rely on touch or hearing can support children with visual difficulties. An example would be counting activities such as beats on a drum, which ask a child to record the beats on an abacus or hold up the corresponding number of fingers, and later use wooden numerals as their conceptual understanding improves.

Large egg timers can be used with children with behavioural issues to develop the concept of turn-taking and sharing. They also start to develop concepts of the passage of time.

Rich learning comes from play with assorted 2D and 3D shapes, jigsaw puzzles and a range of construction materials and loose parts. Merely by tidying up wooden blocks into their corresponding shadow places on the shelves will support learning.

The provision of a number washing line with pegged number cards are common to most settings; as are difference balances with materials to weigh and count, such as beads, cubes, cotton reels, pegs, cones, pebbles, and feathers.

Blocks are also valuable as a resource to explore shape, space, measures and patterns. Threading large beads or coloured cotton reels on laces or rods to create or copy patterns is also practical.

Small steps:

Children with learning difficulties need gradual steps to help

“Thinking in young children is rarely internalised, their ideas, misunderstandings and connections have to surface and be shared. All young children are constantly trying to make sense and interpret events, words and actions within a context.”



them understand how one thing can represent another. For example, from knowing that a drink is available only when they actually taste it, children can be helped to understand that it is snack time/drink time when they are shown a cup, or by gradual stages, a cup handle, a picture of a cup, the sign or symbol for a cup and finally the word for cup. This painstaking process reveals the wonderful and almost invisible learning process which most young children achieve without adult assistance.

Slow learning:

Approaches such as Portage use planned steps to teach children basic skills, and a similar approach can help teach aspects of mathematics such as simple arithmetic. The use of tally sticks with real sticks before mark-making for example. Children must have lots of practical experiences

before starting to represent in more formal recognised ways. Downwards pressure from the National Curriculum can have the effect of accelerating pressure for written recording of symbols too soon. Slower ways, as Merttens (1996:31) points out, are the best way to achieve long-term learning. "Accumulated evidence from the last century shows unequivocally that too early an introduction to formal arithmetic hinders children's numeracy."

Thinking in young children is rarely internalised, their ideas, misunderstandings and connections have to surface and be shared. All young children are constantly trying to make sense and interpret events, words and actions within a context. Thus those with unique needs benefit from small groups with sensitive strategies to support their learning and plenty of opportunities to communicate their ideas. The most effective



focus is when children initiate the topic of interest to them, which is then sensitively guided by adults to develop competence and confidence. Lots of visual images and clues alongside enable learning. Practitioners must be clear in what they say and how they address each child.

Choice matters:

Choice and flexibility are essential in the holistic development of children's independent thinking skills. Secondly, their lack of conformity means that practitioners need to adapt quickly and allow flexibility so a child's ideas develop purposefully and they can start to represent ideas through resources such as blocks, Lego, sand or pens and paper when ready.

Finally, in order to make connections practitioners need to understand the unique development of each child to enable them to make their choices effectively. Practitioners will also need to reflect upon each child's interests and concerns in order to provide the best possible experience for them to achieve their full potential.

Extending learning:

When children are engaged in play practitioners can extend their learning through questions such as:

- What do you think will happen if we add one more side to the shape?
- Are these the same or different?
- How did you discover that?
- Do you see any patterns?
- How many more do you need to make 10?

There will also be some children on the autistic spectrum whose mathematical skills are in advance of their peers and they will need careful consideration too.

Conclusion:

When exploring mathematical concepts with young children the key reflection should be 'Are we having fun?' Promoting a positive attitude and fascination will encourage all children to embrace and not fear maths. If you combine their curiosity with a rich enabling environment you will help to create lifelong learners.

Bibliography:

- Boaler, J. (2009) *The Elephant in the Classroom: helping children to learn and love mathematics*. London: Souvenir Press.
- Hughes, M. (1986) *Children and Number: Difficulties in Learning Mathematics*. Oxford: Blackwell Publishing
- Goldschmied, E. (1990) *Heuristic Play with Objects, and Infant's Learning*. London: National Children's Bureau.
- Merttens, R. (1996) *Teaching Numeracy: Maths in the Primary Classroom*. Leamington Spa: Scholastic.
- Pound, L. (1999) *Supporting Mathematical Development in the Early Years*. Buckingham: Open University Press.
- Skinner, C and Stevens, J. (2012) *The Foundations of Mathematics*. London: Featherstone.



A pathway to Montessori

Patrycja Folta tells us about her route to studying at Montessori Centre International.

When I was 19 and passed my A level exams I had to choose what I wanted to do with my life. As I loved maths everybody thought that I would study accountancy, but I was always interested in human development as well, especially the early years, so I decided to study pedagogy at the University of Philosophy and Education Ignatianum in Cracow, now known as the Academy Ignatianum. I was a student there for three years, and it was during this time that I was introduced to the Montessori method, which came close to what I believed is best for children.

In 2006 I came to London, where my daughter Julia was born, and both my husband and I knew that the best that we could give our child is the opportunity to explore the world around her. Ever since the time of her birth we have given her chances to see the world through her eyes, not ours. Thus, when it was time to choose a school for her it was not easy, as we knew that what we wanted for her is freedom in her development. I was so happy when I learned that one of the schools close to us was going to introduce the Montessori method. From that point, it was as easy a decision as could be, and Julia started Aldersbrook Primary School in 2013. The fantastic staff and favourable environment helped her to develop language, to understand maths, and showed her the world around her.

In the same year we went to the Montessori Workshop for Families at the Museum of Childhood in Bethnal Green, London, where I had a chance to see Julia playing with the Montessori materials. It was a great experience as a parent to see my nearly 5 years old child building words, playing with a puzzle map or sewing; and all those things were without any distraction or interruption.

It was also a fantastic as I met Barbara Isaacs there and she told me about Montessori Centre International and the Early Childhood Course it ran. One month after the Montessori Workshop I started the Montessori Parenting Course held at the same Museum of Childhood, where we could share our parental experiences and parents were able to see some materials



and discuss them with the teacher.

These two experiences – the families workshop and the six week parenting course – convinced me that this is the course I want to follow in my life. Now I am a student at Montessori Centre International and I am on my way to becoming a teacher. The deeper study of Maria Montessori's principles and her method let me to see my child and all

children as human from the moment they are born: intelligent persons that have the right to follow their 'inner drive'. Julia is 7 years old now, and she loves to write, read and count, and is very interested in the world, and all these skills she is developing through using the Montessori materials. As a parent I know that I have to follow her, and let her follow her pathway in holistic development.

Montessori St Nicholas Charity

JOB OPPORTUNITIES

Montessori St Nicholas is recruiting for the following positions to start in as soon as possible thereafter to be based at our College in Mayfair near Bond Street.



PROFESSIONAL PLACEMENT TUTOR

FULL-TIME POSITION

to support students on professional placement

The ideal candidate will:

- Have a Montessori qualification (preferably MCI Diploma)
- Have minimum three years post-qualifying experience at a supervisory level
- Preferably have experience of training/mentoring/assessing
- Competent ICT skills

Further details are available by phoning Sameena on 020 7493 8300 or by emailing sameena@montessori.org.uk

Deadline for applications: Friday 7th August 2015

We also welcome CV's and letters of interest for: Freelance Professional Placement Tutors, Distance Learning Group Tutors and Visiting Lecturers for future work at the College.

Montessori is
a registered
charity
No: 313636

NORTH LONDON

Montessori Teachers

The Gower School is an accredited Montessori nursery and primary school in Islington, North London. We are looking for Montessori teachers to join our team in both the nursery and primary school. Candidates need to be highly motivated, sensitive, flexible, enthusiastic, reliable, dedicated and passionate with a good team spirit and able to contribute to a strong team. We offer an excellent working environment in a well-resourced Montessori school. We are committed to safeguarding and promoting the welfare of children. DBS checks required. Please send your CV and covering letter in the first instance to: sandra@thegowerschool.co.uk

Montessori Teacher

Montessori teachers required for our warm and nurturing bilingual Montessori schools in Paddington and Angel. Perfect spoken and written French or English (not both) is required for this position. The salary starts at £18K, 38 hours per week, 7 weeks paid holidays and 5 days paid sick leave as well as training opportunities and we also provide a pension scheme. Please forward your CV to amandinealys@gmail.com

Nursery Manager – Montessori House Nursery

Are you ready for a new challenge? We are looking for an outstanding Nursery Manager to join our Leadership Team in a prominent North London Preparatory School. We can offer: Motivated, well-rounded and excited children, eager to learn, flexibility to be creative in your approach, an excellent challenge and the opportunity to develop vision. For an application pack, please email Kirsty Mardell: office@norfolkhouseschool.org. We welcome early applications and offer an opportunity for any interested applicants to make appointments to view the nursery. The school is committed to safeguarding of its pupils. Website: <http://www.montessori-house.org/>

Montessori Senior Directress (part-time)

Monty's Montessori School would like to employ a Senior Directress who is passionate about delivering a high standard of early years' education, has a compassionate approach and understands the importance of following each child's natural rhythm and developmental progress. Lateral thinker who is a team player and pioneer in their own right.

Senior Directress (Monday to Wednesday): To lead a small team of teachers and act as designated cover in the absence of the Principal. Responsible for supporting a small group of key children guiding them through the Montessori and EYFS curriculum. Qualifications: Montessori International Diploma/FD Early Years an advantage. Please forward your C.V to: contact@montysmontessori.co.uk. Website: www.montysmontessori.co.uk

NORTH WEST LONDON

Montessori Teacher

Casa Dei Bambini Montessori School, Hampstead is looking for a part time educator, newly qualified or with experience in the early years, who is considering their first step into a Montessori Classroom. Montessori qualified, AMI/MCI. Hours 8.30 to 1.30, Term time. If you are progressive and committed individual, passionate about the Montessori Method, we would love to see your CV. Our school, filled with laughter and joy, focuses on the enrichment of the child, community and the environment. Applicants for this position should have UK residency or a valid UK work visa. Please email Dipti Kanani at admin@lymingtonmontessori.com or contact us on: 07788101069.

To advertise your
vacancy call
Sameena on:

0207 493 8300

Montessori Teachers & Student Montessori Teachers

Montessori Teachers & Student Montessori Teachers required for established N.W London Montessori School (Ages 3 – 6, 6 – 12) A fully qualified Montessori teacher is required for our Junior School (ages 3-6 and/or 6-12). We also have a vacancy for a student Montessori Teacher / Teaching Practice student. We are one of the longest established Montessori Junior schools in the UK (est. 1982) with a passion and dedication to the Montessori Method in its true sense. The successful applicant MUST have experience teaching Montessori to either of these age groups AND have a suitable Montessori qualification for ages 3 – 6, 6 – 12 years old or be a Student Teacher from a respected Montessori teacher training institution. Please contact: 020 7328 8986 or email a CV to: rms@rainbowmontessori.co.uk

Montessori Classroom Teacher

Crickets Montessori Nursery School in NW2 is an Outstanding nursery set in a purpose built eco friendly building with extensive outside space. We are looking for an experienced and enthusiastic Montessori/Level 3 or equivalent trained teacher to start with us in January 2016. Knowledge of the EYFS and the ability to plan in an early years setting is essential. We offer a competitive salary, paid school holidays and operate term times only. Letters of application along with a current CV and details of two referees should be sent to Celia Stephenson cricketsinfo@nw6@googlemail.com

WEST LONDON

Keyworker Required

Keyworker wanted, Tara House Montessori, Chiswick W4 1TP. Tara house is a family owned & run nursery established over 35 years ago. We are looking to recruit a full time Montessori Keyworker. Working hours are 8.15am to 5 pm – salary will be based on experience and is negotiable. We need someone loving and passionate about Montessori, enthusiastic and dedicated to children. We are very happy to welcome a newly qualified teacher to our team. The role will involve keeping detailed journals based on observations, writing reports within the seven areas of learning, communicating with parents directly. Please email your CV to info@tarahousenursery.co.uk. Website: www.tarahousenursery.co.uk

After School Nanny Wanted

Lovely family with three children (5, 3 and 2 years) looking for a friendly happy nanny to help after school. Ideally you would be available from 3pm to 7pm to help with pick up, tea, homework and bath time. 2 nights babysitting please. We offer a wonderful almost self-contained basement flat, with bedroom, bathroom, TV room and kitchenette, 5 mins from Gloucester Road tube station. Further pay tbd depending on hours and experience. Looking for someone with a genuine love of children, happy to play games, go to the park and help out generally. Please send through your cv if interested swilson8592@hotmail.co.uk

SOUTH WEST LONDON

Early Years Foundation Teacher

Ringrose Kindergarten Chelsea & The Rainbow Playgroup situated in the heart of Chelsea, London are looking for an exceptional Early Years teacher who is knowledgeable in the EYFS. Responsible for own class of eight children in the morning school and four children in the afternoons. The successful candidate should: Hold a Montessori / BTEC /EYPS or a minimum level 3 qualification; Have excellent written and spoken English; Experience in working with children aged 2-5 years; Eligible to work in the UK; Be inspirational, dynamic, presentable and a caring professional who is passionate about children's learning and development. Full time / Term time only. Start January 2016. Competitive Salary. Contact: lucy@ringrosec Chelsea.co.uk. Website: www.ringrosec Chelsea.co.uk

Montessori Trained Nursery Teacher

We are looking for a Montessori trained nursery teacher (Norlan nanny training or other nanny training a bonus), with professional experience of at least 1yr or more with 1-2 year old (will consider students training with one placement completed), to teach/play with 1yr old boy at home (Chelsea, London) for up to half a day, up to 6 days a week. Full time position an option with time. Please email CV & covering letter to sallyrachelkate@gmail.com



SOUTH WEST LONDON

Montessori Directress

Exciting position available in Wandsworth, in a beautiful new Montessori Nursery School for a responsible and motivated Montessori Directress to lead our small but growing Children's House. The successful candidate will be involved in moulding and developing this lovely school to its full potential with enthusiasm and grace. The position is permanent and full time: 40 hours per week, year round. Ideally, you will: Hold a Montessori Diploma; Have previous experience of working with children; Have a high level of written and spoken English. We offer: Competitive salary, excellent training, career progression. A lovely workplace with talented and approachable managers and welcoming Newparkers. Contact details: talent@newparkchildcare.co.uk. Tel: 020 7503 0961

To advertise your
vacancy call

Sameena on:

0207 493 8300

SOUTH EAST LONDON

Montessori Teacher

Toad Hall is a very small private term time only nursery school in Kennington for children aged 2-5 years. We are looking for a qualified, motivated and enthusiastic Montessori teacher to join our team. The applicant must have a good knowledge of the EYFS and must have good written and spoken English. The applicant will be responsible for a group of key children and will be expected to track their progress and review their development with their parents. The hours will be 8.30-4.30 half day Friday. Please submit a CV, DBS and references via email to vrees@toadhallnursery.co.uk. Website: www.toadhallnursery.co.uk

Montessori Directress – Term Time

One of our team is returning to France, creating a vacancy for a newly qualified or experienced Directress to take over a group of 8 key-children in January, although the successful candidate could start sooner if available. We are based in Beckenham on the South East London/Kent borders and are looking for a full time Directress who is fully committed to developing a professional career as an early years professional. You will benefit from a wonderful working environment where we have achieved an outstanding Ofsted inspection this year, and have previously been re-accredited by the Montessori Evaluation and Accreditation Board. To arrange an interview please email your CV to richard@catorparkmontessori.co.uk or call him on 07802 458 015.

CENTRAL LONDON

Montessori Teacher

We are looking for a new teacher who is committed, passionate and creative to join our well established team central London. Salary to start from £18,000 pa. 5 weeks of paid holidays. 8.30/ 9.00 - 5.00/5.30. To start asap. Email: admin@hopemontessorischool.com or call 07919 84 48 53.

EAST LONDON

Montessori Teacher

Qualified Montessori teacher required for Pillar Box Montessori nursery in Bow, East London. Candidates need to be enthusiastic and a proactive team member. We are committed to the care, safety and education of children. Candidates should have excellent communication skills, fluent written and spoken English and be able to develop sound relationships with children and parents. The nursery is within minutes of all major transport links. We offer a competitive salary with 6 weeks annual leave and continual training for professional development. Please forward CVs via email to Mr. George Coker at pillarboxnursery@aol.com

Pre School Teacher

River House a popular independent school in London Docklands E14 currently have a vacancy for a full time (term time, 40 hours per week) Pre school teacher. You will be responsible for your own class of 16 children aged 3-4 years and will be assisted by a TA. You must have a Montessori qualification, at least one years teaching experience and experience of the EYFS curriculum, lesson plans, assessment and liaising with parents. The successful applicant will need to be able to work well as part of a team, and be enthusiastic and hardworking. Please forward CV and covering letter to sjoseph@river-house.co.uk

REST OF THE UK

Berkshire

Children of the World Montessori School, OFSTED OUTSTANDING require a Montessori trained teacher/classroom leader with a minimum of 1 year's experience and a clear commitment towards safeguarding to start January 2016. Term-time only, a well resourced school, CENTRAL WINDSOR. Please contact us for an application form: mail@cotwmontessori.co.uk or Tel 01753 833771. Website www.cotwmontessori.co.uk

Lewes (near Brighton)

We work as a team. We enjoy our jobs. And we love shaping young lives to help create confident, independent children who are a delight to spend time with. This outstanding nursery in Lewes, near Brighton, needs a Montessori Teacher to work with our 3 and 4 year olds. If you're passionate about Montessori and you can inspire and delight the children you teach we'd love to hear from you. The salary for this position is between £18,000 and £20,000 p.a. depending on experience. Send your CV to Lindy Baldwin, Directress, The Old School House Montessori Nursery, at info@schoolhousenursery-lewes.com. Website: schoolhousenursery-lewes.com

West Sussex

Chichester Montessori is looking to recruit a Montessori Teacher to join our team. The successful candidate would be working with children from 2 ½ to 5 years, and be responsible for a group of key children. We are an Ofsted rated 'Outstanding' nursery, occupying our own purpose built property, on the outskirts of the historic city of Chichester. If you are interested please send in your CV with a covering letter to amelia.chimontessori@btconnect.com or call 01243 788 331. Our full time team work 4 ½ days per week, and benefit from 5 weeks holiday plus bank holidays. Website: www.chichestermontessori.co.uk.

EUROPE

Spain

Fully equipped Montessori homeschool for small group learning (max 8) 3 to 6 year olds set in private villa in the hills above Marbella, Spain. We are looking for a Montessori qualified teacher MCI, AMI or AMS diploma with enthusiasm for outdoor learning and activities given the environment and location of the school. English speaking with Montessori experience and Spanish speaking a bonus. Or Spanish speaking with Montessori teaching experience in the UK. Competitive salary package, plus accommodation in self contained apartment on site, holidays and support for relocation. Please send CV and details of referees to casa123marbella@gmail.com

REST OF THE WORLD

Azerbaijan

A qualified Montessori teacher is required for second setting opening in Baku, Azerbaijan. Responsibilities will include running of a small well-resourced Montessori room for 2 ½ to 5 year olds, key-working, planning and delivery of the Montessori curriculum. We will offer an excellent competitive salary, medical insurance, international return flights and accommodation. Working hours are 9 to 3.30pm, term-time. Native English speakers only. Please email your CV to Nazila@bumblebee.az

EARLY YEARS EDUCATOR BIRTH TO SEVEN

DIPLOMA IN MONTESSORI PEDAGOGY

Next
course starts
FEBRUARY
2016

- Study part-time over (maximum) 2 years
- Blended learning approach using our innovative online virtual learning environment
- Study online or at our MCI London college
- Nationally recognised qualification, meets Early Years Educator requirements
- Includes professional placement in Montessori setting and 2 week apparatus workshop for Distance Learning students



MONTESSORI

MCI regularly hosts
OPEN EVENTS to
provide further information
on their range of
Montessori courses.

Email: rupert@montessori.org.uk or telephone: **020 7493 8300** www.mci.montessori.org.uk

*"This is a transformative,
heartfelt learning process."*
Brekke Friend



Photo courtesy of Ivema Gardens Montessori

OPPORTUNITIES FOR CONTINUED PROFESSIONAL DEVELOPMENT



**MCI offers PROFESSIONAL
DEVELOPMENT COURSES,
SEMINARS and WORKSHOPS for**

- montessori educators
- students
- early years practitioners
- childminders
- parents and others



MONTESSORI

**Essential training for Montessori practitioners.
We also offer in-house seminars for MSA
member schools.**

All professional development courses are listed in the
MCI Training Directory.

For further information, go to:
www.mci.montessori.org.uk/professional-development



This is the current list of MEAB-accredited [and re-accredited](#) settings that, through taking part in the rigorous accreditation process, have demonstrated the high quality of their Montessori practice and their commitment to continuous improvement through the supportive MEAB scheme.

Region 1 – Scotland

Mulberry Bush Montessori Yorkhill
Mulberry Bush Montessori Killearn

Region 3 – Middlesex

Chalfont St Peter Montessori School Buckinghamshire
Denning Montessori School Fawley
Dragonflies Montessori School Henley-on-Thames
Fountain Montessori Pre-School Edgware
Green Lawns Montessori School Kenton
Haydon Hall Montessori Nursery Pinner
Holly Lodge Montessori Nursery Southall
Manor Grove Montessori Tingewick
Milkshake Montessori Nursery School Twickenham
Rosewood Montessori Nursery School Ruislip
The Children's House Kidlington
The Lighthouse Newington
The Little Learners Montessori Nursery Wembley
The Montessori Nursery School Kingston Blount
The Pavilion Montessori School Teddington

Region 4 – North England

Alderley Day Nursery Cheshire
Chapel Grange Montessori Nursery School Wilmslow
Gorton Mount Primary Academy Manchester
Holly Grange Montessori Cuddington
Holly Grange Montessori Nursery Stockport
Leeds Montessori School and Day Nursery Leeds
Malton Montessori School and Nursery Malton
Mill Cottage Montessori School Brighouse
Pocklington Montessori School York
Rigg Farm Montessori School Harrogate
Rooftops Montessori Pre-School Richmond
Wharfedale Montessori School Skipton
York Montessori Nursery Fulford
York Montessori Nursery Strensall
Willows Montessori Nursery Tyne and Wear

Region 5 – West Midlands

Caterpillars Montessori Pre-School Ellesmere
Little Learners Montessori School Solihull
Malvern Montessori Malvern
Merrydays and Henley Montessori Henley-in-Arden
Moseley Montessori Nursery Birmingham
The Elms Malvern
Tiggywinkles Montessori Nursery Newport

Region 6 – East Midlands

Market Harborough Montessori Nursery Leicestershire

Region 7 – Southwest and Wales

Chagford Montessori Nursery School Devon
Drakes Montessori Childcare Exmouth
Frogmore Montessori Nursery Devon
Little Orchard Montessori Nursery Sparkwell
Plympton Montessori Nursery Devon

Semley Montessori Nursery School Shaftesbury
Stoke Bishop Montessori Bristol
The Children's Room Swansea
The Clifton Children's House Montessori School Bristol
The Rainbow Montessori Nursery School Winscombe

Region 8 – Southeast

Anne Frank Montessori Southwater
Anne Frank Montessori Horsham
Beckenham Montessori Preschool Beckenham
Cator Park Montessori Pre-School Beckenham
Childrens House Birling
Little Oaks Montessori Nursery School Forest Row
Monique's Montessori Day Nursery Kent
Saxbys Montessori Nursery Cowden
The New Montessori Pre-School Worthing
The Old School House II Tenterden
West Chiltington Montessori Nursery School West Sussex

Region 9 – Eastern England

Absolute Angels Montessori Nursery Coggeshall
Bright Learners Montessori School Barnet
Fitch Green Pre-school Gt Dunmow
Flying Start Montessori Nursery School Sawbridgeworth
Harlequin Montessori Nursery Billericay
Jelly Beans Montessori Nursery Hockley

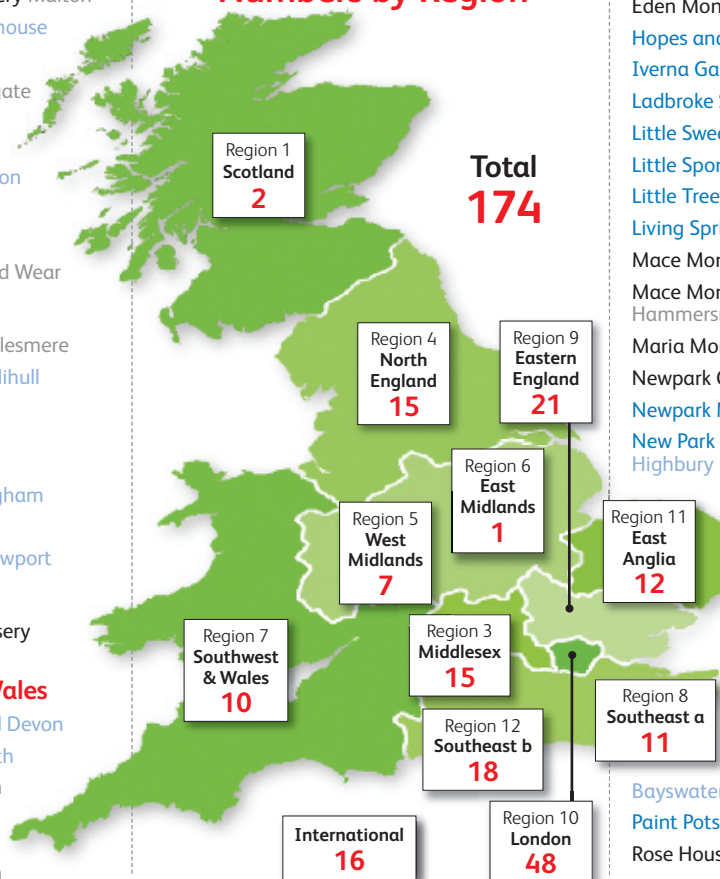
Kingfisher Montessori Nursery School Hemel Hempstead

Little Montessorians Pre-School Ilford
Maynard Montessori Pre-School Stebbing
Norfolk Lodge Montessori Nursery Barnet
Oaklea Montessori Harwich
Pippins Montessori Colchester
Sitara Toto Montessori Well End
Soaring High Montessori Primary School Coggeshall
Stebbing Primary School Essex
St. Thomas More Montessori Pre-School Saffron Walden
Sunflower Montessori Kindergarten Brentwood
The Colourwheel Montessori Nursery Black Notley
The Village Montessori Nursery nr Epping
Westwood Montessori School Saffron Walden
Wivenhoe Montessori Colchester

Region 10 – London

Aldersbrook Primary School and Nursery Wanstead
Andrea's Montessori Balham
Barnes Montessori Nursery Barnes
Beanstalk Montessori Nursery School Hammersmith
Beehive on Queen's Park Montessori School Brent
Beckett House Montessori Nursery Islington
Caterpillar Montessori Nursery School Chiswick
Crossharbour Montessori Day Nursery Docklands
Dulwich Montessori Nursery School College Road
Ealing Green Montessori School Ealing
Eden Montessori Kensington
Hopes and Dreams Montessori School Islington
Ivorna Gardens Montessori School Kensington
Ladbroke Square Montessori School Notting Hill
Little Sweethearts Montessori School Little Venice
Little Sponges Montessori Greenwich
Little Tree Montessori Nursery Hornsey Vale
Living Spring Montessori School Cricklewood
Mace Montessori Schools Ltd Wandsworth
Mace Montessori Schools Ltd - Annex Hammersmith
Maria Montessori Nursery School Ealing
Newpark Childcare Centre Barbican
Newpark Montessori School Shepherds Bush
New Park Nursery and Montessori School Highbury
New World Montessori Nursery School Ealing
New World Montessori Nursery School, St Peter's Ealing
Nightingale 1 Montessori Nursery School Clapham
Nightingale 2 Montessori Nursery Clapham
Paint Pots Montessori School Chelsea
Paint Pots Montessori School Bayswater
Paint Pots Montessori School Hyde Park
Rose House Montessori School Forest Hill

MEAB Accredited Schools Numbers by Region



Rose House Montessori Pre-School Forest Hill
 Sheen Montessori Nursery East Sheen
 Sinclair House School Fulham
 St Andrew's Montessori Islington
 St Nicholas Preparatory School Kensington
 St Matthews Montessori School Ealing
 Streatham Montessori Pre-School Streatham Hill
 Tara House Montessori Nursery Chiswick
 The Gower School Nursery Islington
 The Gower School (Montessori Primary) Barnsbury
 The Little Learners Montessori Nursery London
 The Woodlands Montessori Preparatory School Stratford
 The Village Montessori Lewisham
 Victoria Road Montessori Kensington
 Woodentots Montessori School Camden

Region 11 – East Anglia

Cherry Trees Preparatory and Montessori School Bury St Edmunds
 Chives Montessori School Ipswich
 Colourbox Montessori School Ltd Newmarket
 Foxglove Montessori Nursery School Stowmarket
 Little People's Montessori Nursery School Norwich
 Norwich Montessori School Norfolk
 Peacock Montessori Nursery Diss

Phoenix Montessori Nursery Terrington St Clement
 Rectory Garden Montessori School Woodbridge
 Sunflower Montessori Nursery School Saxmundham

The Meadows Montessori Primary School Ipswich

Willow Park Montessori Day Nursery Ipswich

Region 12 – Hampshire, Berkshire and Surrey

Casa dei Bambini St Johns Hall Winchester
 Caterpillars Montessori Nursery School Hartley Wintney
 Footprints Montessori Day Nursery West Horsley
 Grantham Farm Montessori School Tadley
 Hopscotch Montessori Nursery Old Oxted
 Hartley House Montessori The Lido Winchester
 Lemon Tree Montessori School Sanderstead
 Little Tots Nursery Reading
 Martyr's Green Montessori Ockham
 Meadowbrook Montessori (Pre-Primary) Bracknell
 Montessori Children's House Sutton
 Overton Children's House Basingstoke
 Shamley Green Montessori Pre-School Guildford
 Star Child Montessori Day Nursery Thornton Heath
 Steventon Children's House Basingstoke

Tigglets Montessori Nursery School Farnham

The Little House Montessori Nursery School Burstow

Treasure (Johanna) Montessori Nursery and Pre-school Camberley

Weyhill Montessori Haslemere

International

Ajyaal Montessori Pre-School Bahrain
 Blooming Child Sarajevo Bosnia and Herzegovina
 Jakarta Montessori School Indonesia
 Gulf Montessori Nursery Kuwait
 Gulf Montessori Nursery United Arab Emirates
 Head Start Montessori House of Children Bangalore, India
 International Montessori School of Albania Tirana, Albania
 Little Explorers Montessori Plus School Ghana
 Little Gems Montessori Nursery Cyprus
 Madeleine's Pre-School Bahrain
 The Montessori Children's House West Des Moines, USA
 The Woodland Montessori Pre-school Tai Tam, Hong Kong
 The Woodland Montessori Pre-School Repulse Bay, Hong Kong
 The Woodland Montessori Pre-School Mid-Levels, Hong Kong

For the most up-to-date details go to www.montessori.org.uk/msa/accreditation/accredited_schools and for more information about the MEAB accreditation scheme contact Philip Davies on admin@meab.co.uk

FOUNDATION DEGREE MONTESSORI EARLY CHILDHOOD PRACTICE

- Become a Montessori Graduate Leader
- Combine study with placement in a Montessori setting
- 2 years full-time
- MCI Diploma graduates fast track and study part-time for 1 year
- Recognised early years qualification (meets Early Years Educator criteria)
- Progress to full BA (Hons)



MONTESSORI



MCI regularly hosts **OPEN EVENTS** to provide further information on their range of Montessori courses.

Email: rupert@montessori.org.uk or telephone: **020 7493 8300** www.mci.montessori.org.uk

Next
 course starts
 SEPTEMBER
 2016

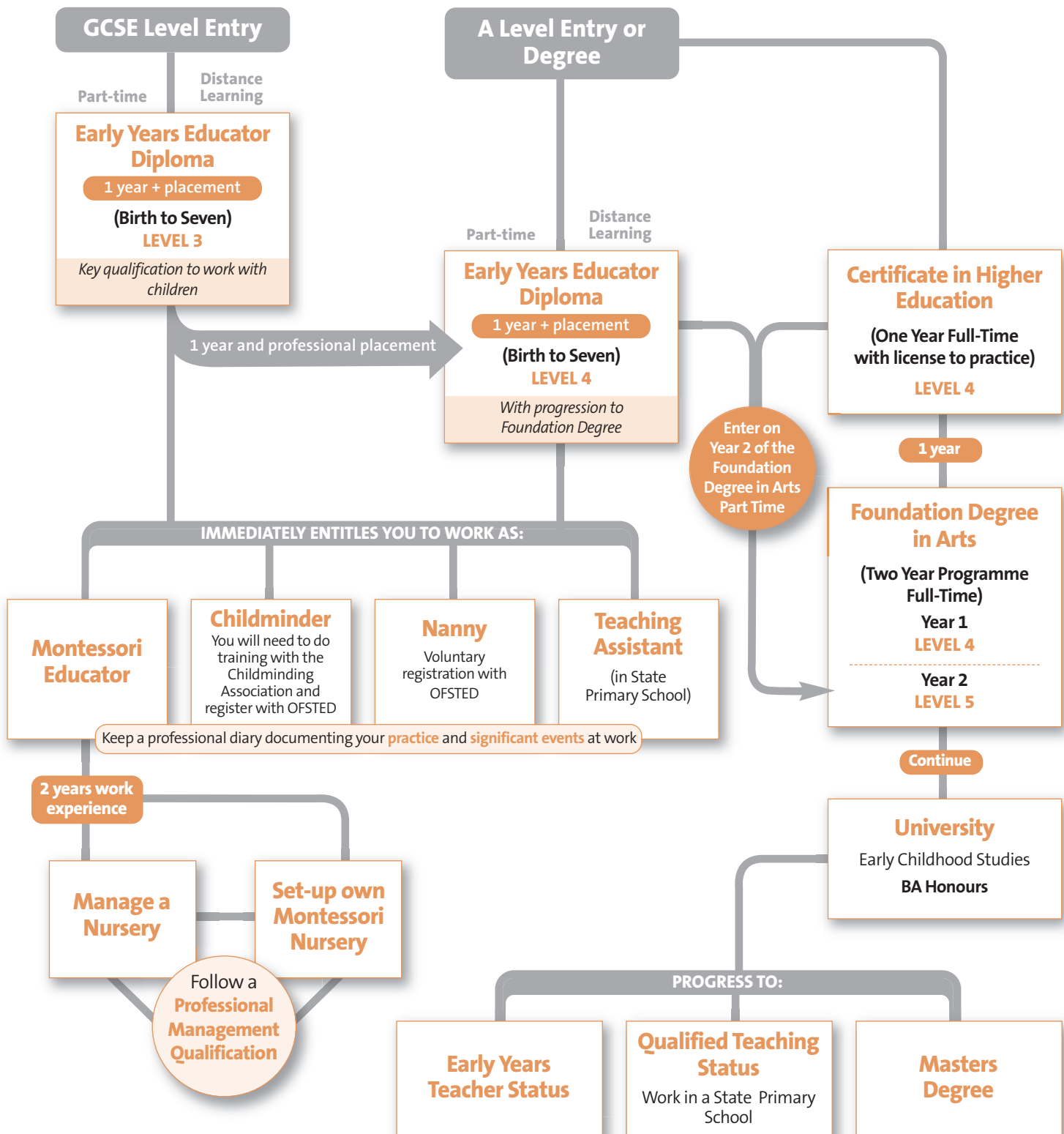


STUDENT
 FINANCE
 NOW AVAILABLE

"Doing the Montessori Foundation Course was an amazing experience. It gave me the foundations and philosophy of teaching which has supported me through my Early Childhood Studies Degree and now my PGCE." Lucilla Critchley



Progression of MCI Qualifications



Continuous professional development is an essential element of your professional life.
See our website for details of seminars

Always bear in mind the **MCI Code of Professional Conduct**



Join MSA
Your Professional Organisation



mySchoolApp – leading edge technology that enables you to engage with parents and save money too!



mySchoolApp are offering Montessori members a 10% discount on purchases made before 30 April 2015



mySchoolApp is a simple and cost-effective way of keeping in touch with parents. You can provide them with all the information they need about your nursery – news, events and pictures all just a couple of taps away on their smartphone.

In addition, you'll benefit from savings on costly printed newsletters and avoid wasting paper, plus you can send messages for free, no more crumpled letters at the bottom of school bags – now that is smart thinking!

- Branded for your nursery, using your colours and logo
- Free for parents to download
- Instant access to news and an up-to-date calendar
- Nursery contact details – email and phone
- Image gallery for events and works of art
- Free push notification messaging
- Absence notifications – managed securely
- Translation option – view app content in 80+ languages



For a **FREE** trial call 01908 336555 or email enquiries@myschoolapp.co.uk quoting M115

myschoolapp.co.uk

Nienhuis

MONTESSORI

A Heutink Brand



The Global Standard ● For More Than 85 Years

Each child is special. Each child is unique. Children can develop without pre-determined rules, but they need individual guidance and educational materials that encourage and stimulate development. We believe in personal growth and offer the necessary tools to support this. Our material meets the demands made by Maria Montessori's educational method regarding spontaneous learning.

www.nienhuis.com