



# Mark Making Matters



Young children making meaning in all areas of learning and development



# **Mark Making Matters**

**Young children making  
meaning in all areas of  
learning and development**

## **Disclaimer**

The Department for Children, Schools and Families wishes to make it clear that the Department and its agents accept no responsibility for the actual content of any materials suggested as information sources in this publication, whether these are in the form of printed publications or on a website.

In these materials icons, logos, software products and websites are used for contextual and practical reasons. Their use should not be interpreted as an endorsement of particular companies or their products.

The websites referred to in these materials existed at the time of going to print.

Please check all website references carefully to see if they have changed and substitute other references where appropriate.

## **Contents**

<b>What is this booklet about?</b>	2
<b>Introduction</b>	3
<b>A unique child</b>	7
<b>Positive relationships</b>	15
<b>Enabling environments</b>	21
<b>Learning and development</b>	33
<b>Raising awareness of effective practice</b>	42
<b>References</b>	42
<b>Further reading</b>	43
<b>Acknowledgements</b>	44

# What is this booklet about?

## **Mark making, creativity and critical thinking**

The Early Years Foundation Stage (EYFS) identifies the central importance of creativity and critical thinking in early learning and development, asserting that: 'When children have opportunities to play with ideas in different situations and with a variety of resources, they discover connections and come to new and better understandings and ways of doing things.' It goes on to state that in the most effective settings practitioners support and challenge children's thinking by getting involved in the thinking process with them. Young children's mark making helps to make these processes visible.

Creativity involves the whole curriculum, not just the arts, and the EYFS establishes that children must be provided with opportunities to explore and share their thoughts, ideas and feelings through a variety of art, music, movement, dance, imaginative and role play activities, mathematics and design technology.

In this booklet we aim to illustrate that very young children who are given rich opportunities to explore making marks within an encouraging emotional environment will become confident and competent communicators, both orally and on paper, in all six areas of learning and development.

## **Strengthening provision for mark making in Communication, Language and Literacy (CLL) and Problem Solving, Reasoning and Numeracy (PSRN)**

An analysis of recent Foundation Stage Profile (EYFSP) results reveals that while children are generally making good progress across the 13 scales of learning and development, achievements are consistently lower in the scales of Writing (particularly for boys), and Calculation. This could undermine their future progress, particularly in the transition from the EYFS to Key Stage 1. The booklet will also explore how an improved understanding of the importance of mark making can strengthen provision for CLL and PSRN. It will illustrate how children's confidence in themselves as writers and as mathematical thinkers, can be promoted through the introduction of children's mathematical graphics.

The EYFSP findings are borne out by the *Independent Review of Mathematics Teaching in Early Years Settings and Primary Schools*, chaired by Sir Peter Williams in 2008. The review established that while it is quite common to see 'children from an early age making their own marks in role-play to communicate or act out activities they observe in adults, such as writing letters or making lists, it is comparatively rare to find adults supporting children in making mathematical marks as part of developing their abilities to extend and organise their mathematical thinking.'

One of the recommendations of the Williams Review is to commission a set of professional development materials to support practitioners in their understanding of young children's mathematical mark making and development. This booklet is an initial response to this recommendation, aiming to raise awareness of the importance of young children's mark making as a tool for communication and thinking, across the six areas of learning, while strengthening the quality of provision for mark making in Communication, Language and Literacy and Problem Solving, Reasoning and Numeracy. The booklet also aims to celebrate the sophistication and richness of very young children's thinking through the broad range of case studies that have been generously shared for inclusion within it. We are very grateful to these expert practitioners who, in modelling creative approaches to learning and teaching themselves, have developed practice that is thoughtful, innovative and abundant in opportunities for children.

There will be further guidance to support practitioners in response to the Williams Review in the coming months.

# Introduction

'Scribbles are products of a systematic investigation, rather than haphazard actions'.

*John Matthews (1999), The Art of Childhood and Adolescence: The Construction of Meaning. London: Falmer (p. 19)*

## Setting the scene

Children learn from everything they do, but their development depends, in part, on the quality and range of experiences they have received both in the environment of their setting and at home. Some children have had opportunities to experiment with mark making from their earliest years, while others have had limited experiences for a variety of reasons.

The variation that can be seen in outcomes for CLL and PSRN at the end of the Early Years Foundation Stage is likely to be more about the wide differences in children's experience and the impact on their motivation, than about their ability. When practitioners are fascinated by children's mark making journeys, they provide a rich range of opportunities and celebrate each significant achievement on the way. These practitioners have observed that the disparity in Early Years Foundation Stage profile (EYFSP) outcomes, particularly between boys and girls, ceases to exist.

Within the context of an active play-based learning environment, children will have many different ways of representing their thoughts and feelings in the early years. Some will choose music, dance or song, others will prefer to tell stories through role-play, drama or using small world resources, but most will at some point be naturally drawn to represent their ideas graphically. When children realise that marks can be used symbolically to carry meaning, in much the same way as the spoken word, they begin to use marks as tools to make their thinking visible. These marks will support the developing concepts of mathematics and language in relation to their play. A sensitive practitioner will recognise that children make marks for many different reasons and that development along this journey is complex, depending as much on confidence, motivation and dispositions as on their physical skills or ability.

Sometimes marks are made for the pure physical enjoyment of the activity – the feel of the felt-tip pen as it glides over the surface of the whiteboard or the chalk as it grates over the bumpy tarmac, the sight of the brightly-coloured dribbles of paint as they run down the paper on the easel, or the sensation of the glue, oozing between children's fingers as they spread it over the paper. On these occasions children have no interest in an end product at all; the physical activity is an end in itself and an opportunity for them to experiment and explore with their senses, developing confidence and dexterity through the process.

At other times children may take delight in using their mark making to tell stories and express their feelings through pictures and symbols of increasing sophistication. They may decide that their mark making only tells half the story and choose to provide a full narrative which they invite the practitioner to 'scribe'.

On yet other occasions they may be intrigued by an object or an event and be more concerned with recording exactly what they see, through careful scientific observation and meticulous draughtsmanship, than producing a more imaginative interpretation.

Alternatively, they might discover that they can use marks to help them to make sense of their world, to solve problems or discover solutions to their lines of enquiry. Children's fascination with numbers, especially large numbers or those that are particularly meaningful to them, or representations of shape and space, can often be observed in this context.

A single drawing may help a child to develop concepts relating to problem solving, reasoning and numeracy or knowledge and understanding of the world, as well as improving their physical coordination. It is important that practitioners take time to observe, listen and analyse children's mark making to understand the context and purpose, celebrate achievements and, where appropriate, enrich or extend their thinking.

### **What are we looking for in the development of children's mark making?**

Children will therefore be making marks for a wide range of reasons, each equally valid, across all six areas of learning in the EYFS. Through their marks, they are communicating their ideas, expressing their feelings, developing their imagination and creativity, and testing their hypotheses about the world. These opportunities for making 'thinking visible' are fundamental to children's learning and development and should be the entitlement of every child.

This booklet aims to support practitioners in understanding the significance and crucial importance of their role in fostering and celebrating children's mark making, through the provision of a thoughtfully planned environment that is rich in opportunities.

Case studies are used throughout to provide 'real-life' examples of how practitioners work with children to support their all-round development but with specific emphasis on mark making.

In order to raise the status of early mark making, practitioners need to observe children, follow their interests and support the extension of their thinking. This can be achieved through use of appropriate language and resources, as explored in *Supporting Young Children's Sustained Shared Thinking* (2005) Early Education. Support on using mathematical language can be found in:

*Mathematical Vocabulary* – DfES 0313-2000

*Maths in Stories* – Judith Stevens (2008) BEAM Education

*Teaching Effective Vocabulary* – DCSF-00376-2008.

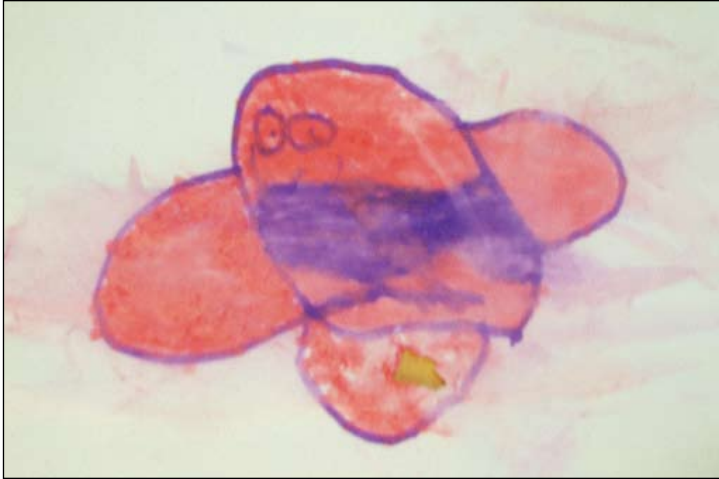
The EYFS establishes a responsibility for all practitioners to be committed to a continuous cycle of quality improvement (*EYFS Practice Guidance*, page 8), and this booklet has been organised to support this process. Young children's mark making will be explored within the context of the four themes and principles of the Early Years Foundation Stage, and each section will end with questions to support practitioners in informed reflection, dialogue and self-evaluation. The National Children's Bureau Quality Improvement Principles describe this as a 'journey towards ever higher quality, involving team work, commitment and some thorough self-examination of practice. It demands that practitioners are open to change, but it can also stimulate learning, creativity and innovation.'

**Case study****The quality of thinking**

**Louis (4 years 5 months) has drawn two pictures:**

**The fish drawing**

Louis said 'I am going to draw a fish'; he drew a fish and carefully coloured it in.



Photograph depicting child's work.  
Used with kind permission.

**The world drawing**

This drawing developed as he drew it. It became 'the world – and it goes round'. He pointed out his 'home' and the 'nursery'. He talked about the 'winding route' between the two. The circles at the bottom 'make it go'.



Photograph depicting child's work.  
Used with kind permission.

At the beginning of the year his mum expressed concern that he worried about getting things right. He often drew and then screwed up his drawings and threw them away.

His first drawing shows that he has the skills to draw a clear representation of a fish. The second sample of mark making shows that Louis has now the confidence to develop his own ideas as he draws freely without the restrictions of 'getting it right'. He is developing his own ideas as he draws and he expresses them as he does so. In the second drawing he explores bigger concepts as he shows his thinking in action.

For many adults the fish drawing may appear to be a more developed example of Louis's mark making. The world drawing looks like random scribbles so will be less pleasing to some adults, and yet this is where we see his thinking. As practitioners we need to understand children's free-flow mark making and that scribbles are never random. (Matthews, 1999)



### Case study

#### Childminder – Barnet



Photograph by Andrews, N. Child drawing on board © Nancy Andrews, 2008. Used with kind permission.

O: (3 years and 10 months) started to draw on the chalkboard outside. As he continued he talked about his party and began to make a list of the people he wanted to invite:

O: Can T come to my party?

CM: Yes.

O: This is T (he draws a straight line). Would you like to come to my party?

CM: Of course I would.

O: Begins to draw, then stops.

O: Stand up so I can see how tall you are.

CM: Stands up and O draws a long line.

O: Ah, I can't write your name because you are too tall.

CM: Will I show you how to write my name?

O: No, I can do it myself.

He draws another line.

O: I made you smaller – sorry – but now you can come to my party. If you are bigger than this line then you can't come.

The practitioner's thoughtful reflections on this dialogue identified that O was interested in the concept of ordering. She went on to support his interest by showing him the height chart in the playroom and supporting him in measuring other people and making marks on the chart, providing a collection of measuring tapes which he used to explore people and objects in the environment and using lining paper to draw around children's bodies and compare the different sizes.

# A unique child

**EYFS principle: Every child is a competent learner from birth who can be resilient, capable, confident and self-assured.**

1.1: Child development: Babies and children develop in individual ways and at varying rates. Every area of development – physical, cognitive, linguistic, spiritual, social and emotional – is equally important.

1.2: Inclusive practice: The diversity of individuals and communities is valued and respected. No child or family is discriminated against.

1.3: Keeping safe: Young children are vulnerable. They develop resilience when their physical and psychological well-being is protected by adults.

1.4: Health and well-being: Children's health is an integral part of their emotional, mental, social, environmental and spiritual well-being and is supported by attention to these aspects.

Children are born with a natural exploratory drive and desire to communicate their thoughts and feelings. From the moment of birth, they strive to make sense of their world and quickly reveal their unique characteristics as their personalities, preferences and different developmental pathways unfold.

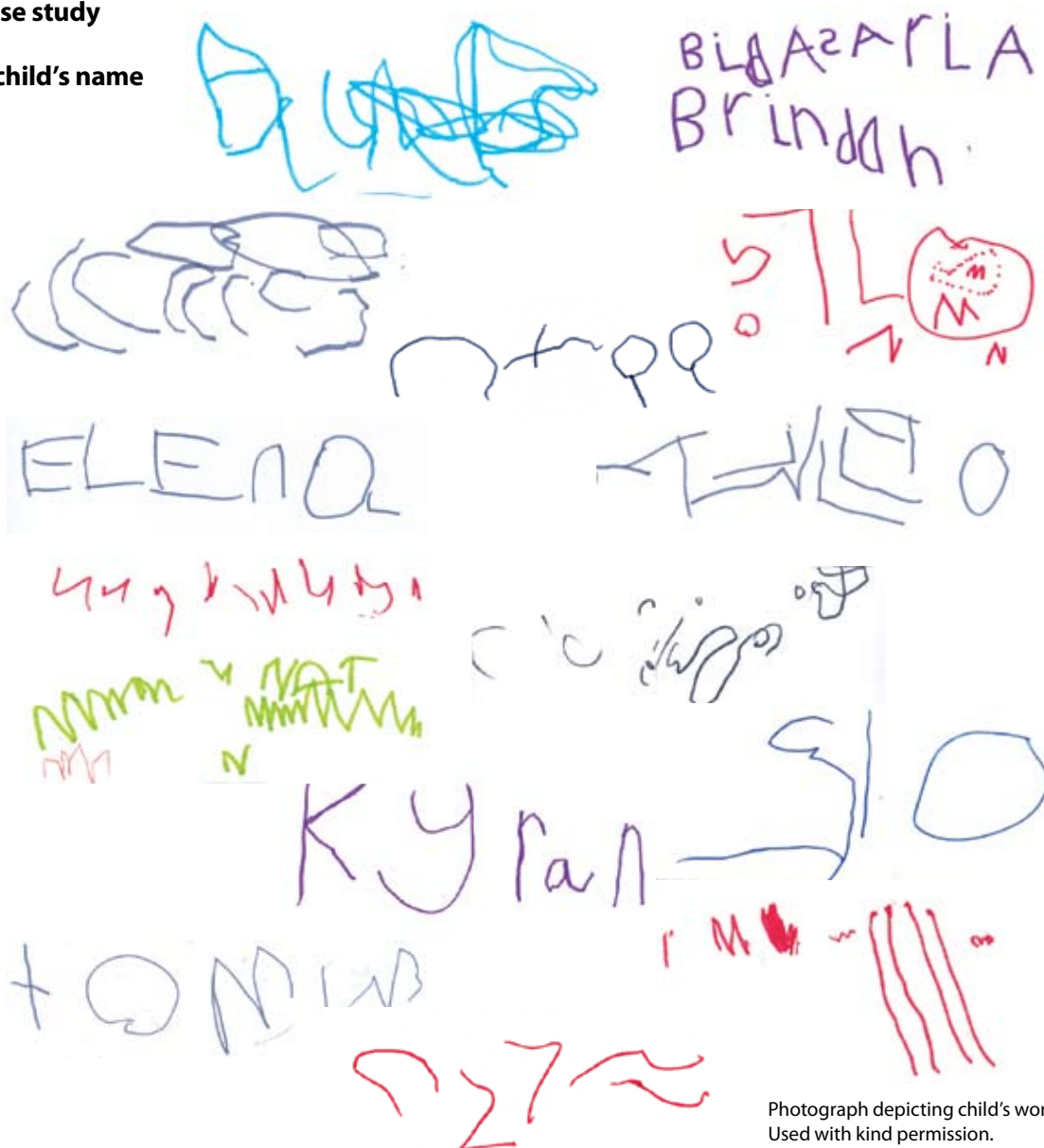
Through their play, young children explore imaginary and abstract worlds, making meaning through story making, mark making and drawing. As their ideas develop, they often create increasingly elaborate versions of their understanding of the world around them.

In an emotionally secure environment, where their creativity is valued and respected, children will often become prolific mark makers. This is particularly true when the purpose and the means of representation are within their control. Boys' mark making tends to flourish when the pressure is off, the choice is theirs and the motivation arises from a specific desire to communicate. They are more often to be seen making marks outside than in the classroom – it may be that they need to make a sign for a den that they have built, or want to keep a record of the number of snails that they have found – but the motivation is always the same the marks are meaningful and relevant to them as individuals. They are spontaneous and not imposed or directed.

For this reason, children's earliest mark making often involves their name or their age, as these are of particular significance to them, as can be seen in the case study that follows.

**Case study**

**A child's name**



Photograph depicting child's work.  
Used with kind permission.

**Elizabeth Carruthers, Head of Redcliffe Children's Centre writes:**

Sylvia Ashton-Warner in her book, *Teacher* (1965) emphasises that a child's name is part of them. It is empowering when they can make their own mark for their name and they perfect this skill willingly when they are given opportunities. Here are a variety of examples of children's name writing. One can see that each child's marks are different in the way they have approached writing their name. Look at the difference in form, layout and use of symbols. After children have experimented with lines and curves horizontally and vertically they often focus on the initial letter of their name. Staff at Redcliffe find that children write their names for many purposes and are encouraged to do so. They comment that parents feel very proud of their child's attempts at name writing. It is similar to when they speak their first word.

Through sensitive observations, practitioners will discover children's interests and can use this information to plan meaningful experiences that inspire and provoke problem solving, reasoning and critical thinking. For practical ideas please refer to section three, Enabling environments.

## Case study

### Keon (from 2 years 7 months to 4 years 2 months)

Keon has been at Redcliffe Children's Centre for two years. During his first year, he was in the birth to three-year-old nursery. Keon's key worker documented his mark making. This process continued when he moved into the three-to four-year-old nursery.

All the examples are child-initiated mark making.

#### Example 1 (2 years and 7 months)



Photograph depicting child's work.  
Used with kind permission.

Keon uses a variety of marks – which include dabbling, rotation and vertical. He also chooses to change implements, i.e. using a pencil, pen and felt-pen.

#### Example 2 (2 years and 8 months)



Photograph depicting child's work.  
Used with kind permission.

Keon makes marks for writing and for drawing. He has drawn his family and made writing-like marks and said: 'Mummy, Daddy, Macca and Kas'. Keon has quite clearly made the distinction between drawing and writing, as he names his writing marks.

Keon has shown a significant development – ascribing meaning to his marks (EYFS, CLL).

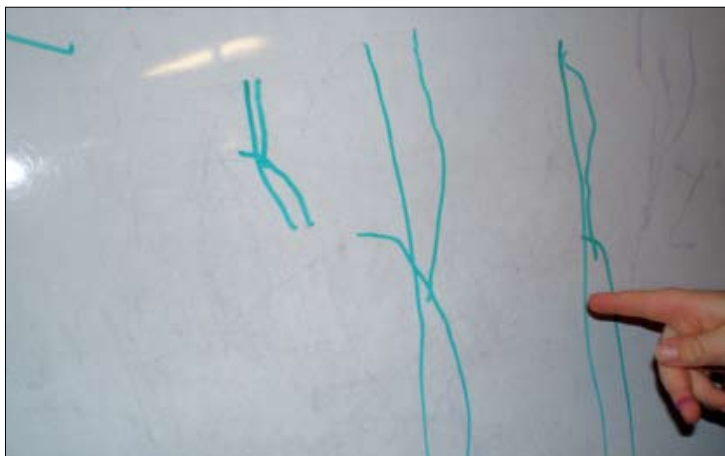
**Example 3 (3 years and 7 months)**

Keon forms zigzags, vertical arcs, colour blocks, spots and an enclosure line. He labels this as: 'My name and some fireworks'.



Photograph depicting child's work. Used with kind permission.

**Example 4 (3 years and 9 months)**



Photograph depicting child's work. Used with kind permission.

Keon's desire to write his name became evident over the next few months. To his key worker, this seemed to be integral to his developing sense of identity and expression of self. For several weeks his preferred media were the whiteboards, situated throughout the nursery.

**Example 5 (4 years and 1 month)**



Photograph depicting child's work. Used with kind permission.

Keon, with support, is now writing his full name. In this example, he tells a story to the practitioner while drawing.

'This is a crocodile. I done a dark river...Now the crocodile is wearing stripy hair. Now the crocodile's got BIG hair. Now it's got BIG, BIG hair and now a tail...I'm painting.'

This is significant development as he now uses extended narratives, giving story meaning to his marks.

'Sol's not sharing.' (the felt-tip pens) This is resolved with the support of the adult. Keon then takes his picture to his key worker who comments positively on the different aspects of his narrative and marks, before adding: 'It would be really helpful if you could write your name on your picture.'

Keon goes back and begins to do this, saying out loud: 'k e...what next?' The adult makes the sound of the O and N and Keon writes the remaining letters. He then writes an A and says: 'That's Alfie's name.' (Alfie is Keon's friend.)

#### Example 5a (4 years and 1 month)

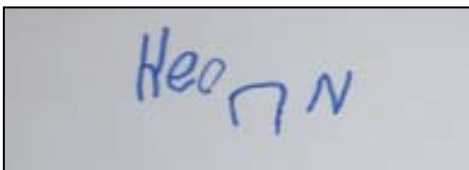


Photograph depicting child's work.  
Used with kind permission.

At the same time, Keon is also beginning to represent numbers on paper. In this example he worked independently before seeking out his key worker who had been watching nearby.

'Look Carole, I done a number 6 and a number 10.'

#### Example 6 (4 years and 2 months)



Photograph depicting child's work.  
Used with kind permission.

Keon now writes his name independently.

#### Examples; 7, 7a, 7b, 7c, 7d and 7e (4 years and 2 months)



Photograph depicting child's work.  
Used with kind permission.



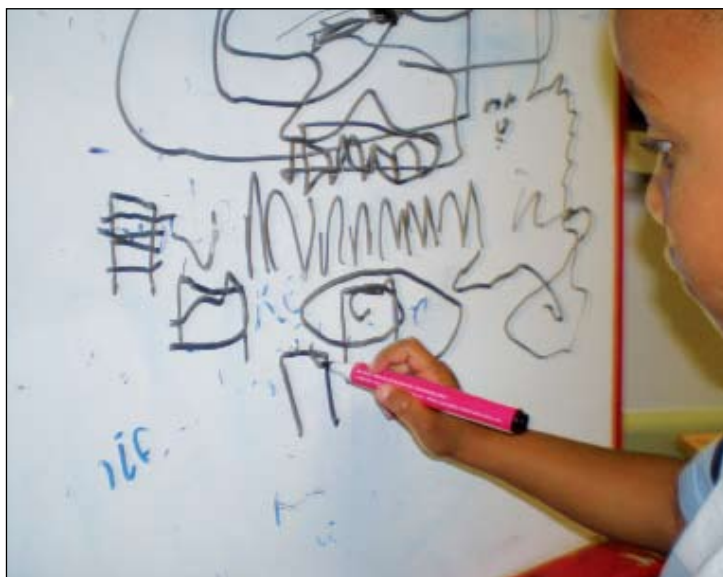
Photograph depicting child's work.  
Used with kind permission.

**7a**



Photograph depicting child's work.  
Used with kind permission.

**7b**



Photograph depicting child's work.  
Used with kind permission.

**7c**



Photograph depicting child's work.  
Used with kind permission.

**7d**



Photograph depicting child's work.  
Used with kind permission.

**7e**

Keon is exploring line and form in conjunction with narrative, rhyme and writing:

'It's a house – a house for a mouse...This is a door...A for Alfie...A fish...A fish with sharp teeth...Seaweed.'

### **Sharing marks with parents**

During Keon's time at the centre his parents were able to discuss Keon's mark making in shared dialogues with his key person. At the end of the year the centre holds a mark-making exhibition for the families. This shows all aspects of children's mark making, including the development of mark making. This exhibition also highlights the importance of scribble-like marks being valued as a developmental landmark in a child's understanding of the world.

'Children as they begin to draw and paint make an intellectual journey which has musical, linguistic, logical and mathematical as well as aesthetic aspects.' (Matthews, 2003, p. 23)



### **Effective practice**

Practitioners who offer effective practice fulfil these criteria:

- Value and celebrate the mark making, mathematical graphics, writing and drawing efforts of all children so that they have a sense of achievement and their self-esteem is promoted.
- Develop children's awareness of languages and writing systems other than English, and communication systems such as signing and Braille, to encourage an inclusive ethos.
- Are fascinated by children's thinking and committed to supporting them on their communicative journeys.

### **Challenges and dilemmas**

- Planning time to tune into children's individual preferences through sensitive observations and genuine partnerships with parents.
- Sensitively supporting and modelling children's unique thinking and representational skills.
- Allowing time and space for children to explore and develop mark making and representational methods which are personal to them.

### **Reflecting on practice**

- What opportunities are there for children to celebrate their own and each other's mark making, drawing and writing successes?
- How do you use children's interests to plan for meaningful mark-making opportunities?
- How do you document children's learning to enable them to revisit and reflect on their achievements?

# Positive relationships

**EYFS principle: Children learn to be strong and independent from a base of loving and secure relationships with parents and/or a key person.**

2.1: Respecting each other: Every interaction is based on caring professional relationships and respectful acknowledgement of the feelings of children and their families.

2.2: Parents as partners: Parents are children's first and most enduring educators. When parents and practitioners work together in early years settings, the results have a positive impact on children's development and learning.

2.3: Supporting learning: Warm, trusting relationships with knowledgeable adults support children's learning more effectively than any amount of resources.

2.4: Key person: A key person has special responsibilities for working with a small number of children, giving them the reassurance to feel safe and cared for and building relationships with their parents.

## Creating a secure emotional environment

Creating a secure emotional environment is of paramount importance if children are to become confident, independent mark makers. Settings should provide opportunities for children to try new experiences, explore new resources and communicate their thoughts and feelings in an atmosphere of mutual trust and respect. The quality of the relationships that develop between adults and children will determine the extent to which children feel able to take on new challenges in their learning. When they know that their endeavours are valued by the important people in their lives, children are empowered to think creatively and develop confidence in themselves as learners. In this emotionally-safe climate, children are able to flourish at their own pace and no limits are placed on their learning. Sensitive support from knowledgeable adults enables children to make meaning of their world, and to represent their thinking both orally and through marks.

## The importance of positive support

As well as providing rich opportunities for young children's mark making, practitioners will also need to consider carefully their attitudes and responses. Genuine interest and encouragement are prerequisites, alongside some opportunities for the teaching of new skills, but over-zealous questioning and attempts by adults to alter or correct the marks that children make can be intrusive and nearly always counter-productive. Stencils and adult-drawn outlines should not be used, as they provide little in the way of new learning and unintentionally give children a hidden message that the adult version is superior to theirs.

Children, particularly boys, seem to gravitate naturally towards whiteboards and blackboards, where they can experiment freely, take risks with their mark making and test their own limits, safe in the knowledge that this medium is not permanent, so changes can be made when they think they are needed and 'mistakes' can be rectified as necessary. Children know when they have achieved an outcome that is significant for them and it is a delight to see them confidently taking their whiteboard to the photocopier to capture the image for posterity.

## Opportunities to share thoughts and feelings

Similarly, children sometimes want to share or celebrate their achievements with others, and the simple provision of display boards, that are 'owned' by the children and presented at their level, will enable them to take responsibility for choosing the pieces that they feel are worthy of display. It is important that children also have opportunities to use their mark making to communicate with each other.

Communication pockets or drawers, where each child is given their own special space, encourage this reciprocity – messages of all sorts (pictures, marks, emergent writing or even artefacts) can be sent back and forth independently, and children experience first hand that mark making has a social purpose. Giving children ownership of their mark making within meaningful contexts is empowering – generating positive dispositions to learning and raising their aspirations.

**The role of adults**

Adults should therefore provide for generous amounts of time, space and attention to be given to children's mark making. Their responses should be respectful and sensitive, celebrating children's creative efforts and innovations, so that confidence and positive attitudes to learning are affirmed. Feedback should be sensitive and where guidance is needed this should be through the provision of positive adult models, in the same way that adults reflect back the correct language when young children make grammatical errors in their developing oral expression.

**Practitioners should:**

- Use learning stories to celebrate young children's achievements, strengths and interests.
- Tune into the children to use their strengths and interests as starting points for their learning.
- Listen to children and engage them in conversations that will extend their thinking.
- Take time to build relationships with parents based on mutual trust and respect.
- Create an emotional environment in which children can take risks, explore and be adventurous in their mark making.

## Case study

### Forging genuine partnerships with parents

There is a dynamic relationship between achievement and self-esteem – but a deep knowledge of the child can only be gained when practitioners work in genuine partnership with parents, as the experts on their child. This is illustrated in the following case study.

When Evie started school in the Reception Class at age 4, her mark-making skills were already well developed. She had shown an interest in creative representation from her earliest years and had benefited from a home learning environment where this interest was both recognised and valued. At home, creative resources were provided, opportunities were plentiful and her confidence grew in response to the encouragement given by her family. She could write her name with ease and her paintings, as can be seen in the photograph, showed a rare sophistication for a child of her age.



Photograph depicting child's work.  
Used with kind permission.

### Evie, 4 years: deeply engaged in her painting at home

On starting school, something strange happened. Day after day, Evie came home with what appeared to be scribbles. Her mum noticed this from the outset but thought that perhaps it was just her initial response to a new experience. As the scribbles continued, her mum became increasingly concerned and arranged to meet the teacher, armed with examples of Evie's artwork. Evie's teacher was amazed to discover the extent of Evie's accomplishments, and it was clear that, prior to this meeting, she had gravely underestimated the child's capabilities.

Fortunately, Evie's mum had the confidence to take the first steps and instigate a conversation with Evie's teacher; as a result, expectations were raised, and Evie's school experiences began to provide her with a level of challenge appropriate to her developing skills and abilities.

The relationship between parents and practitioners is not always an equal one and many parents, faced with this situation, would have great difficulty in initiating this type of interaction. The result could be dire, as children rise to, but seldom exceed our expectations, leading to a downward spiral of underachievement. Practitioners must therefore be proactive in building positive relationships and genuine partnerships with parents, in order to gain an understanding of the whole child in all his or her complexity.

### Case study

#### The Tsunami

At Wingate Community Nursery School in Durham, relationships between practitioners and children reflect the enormous trust and respect that exists between them. Children's thoughts and feelings are taken seriously and they are valued as young citizens who are capable of making a positive contribution to their community and the wider world.

The Tsunami in Indonesia, in 2004, shook the world, and the practitioners guessed that many of the nursery children would be aware of the catastrophic nature of this event, particularly as it had happened over the Christmas holidays. They knew that the children's perceptions would be different from theirs as adults, but felt that the children were entitled to discussion and information that would help them to make some sense of the situation, even though there were no real answers. After careful consideration, the practitioners made the decision to offer the children an opportunity to talk about the event and were prepared to follow where the children led. It quickly became apparent that the children had an interest in the Tsunami and a real sense of empathy formed within the group, with some children revealing a fairly clear understanding of the events. The opportunity to discuss, question and explore their own thinking enabled the children to make a positive response — they wanted to help to make things better. The children decided in their own way that maps would be a way to help and their drawings became 'a collaborative dialogue in which they began to make connections between here (Wingate) and there (Indonesia)'. This was not an adult proposition, but something that emerged through their drawings.

Both morning and afternoon children decided in their own way that maps were a way to help. This was not an adult proposition but something that emerged through their drawings.

Their original drawings were over two metres long.



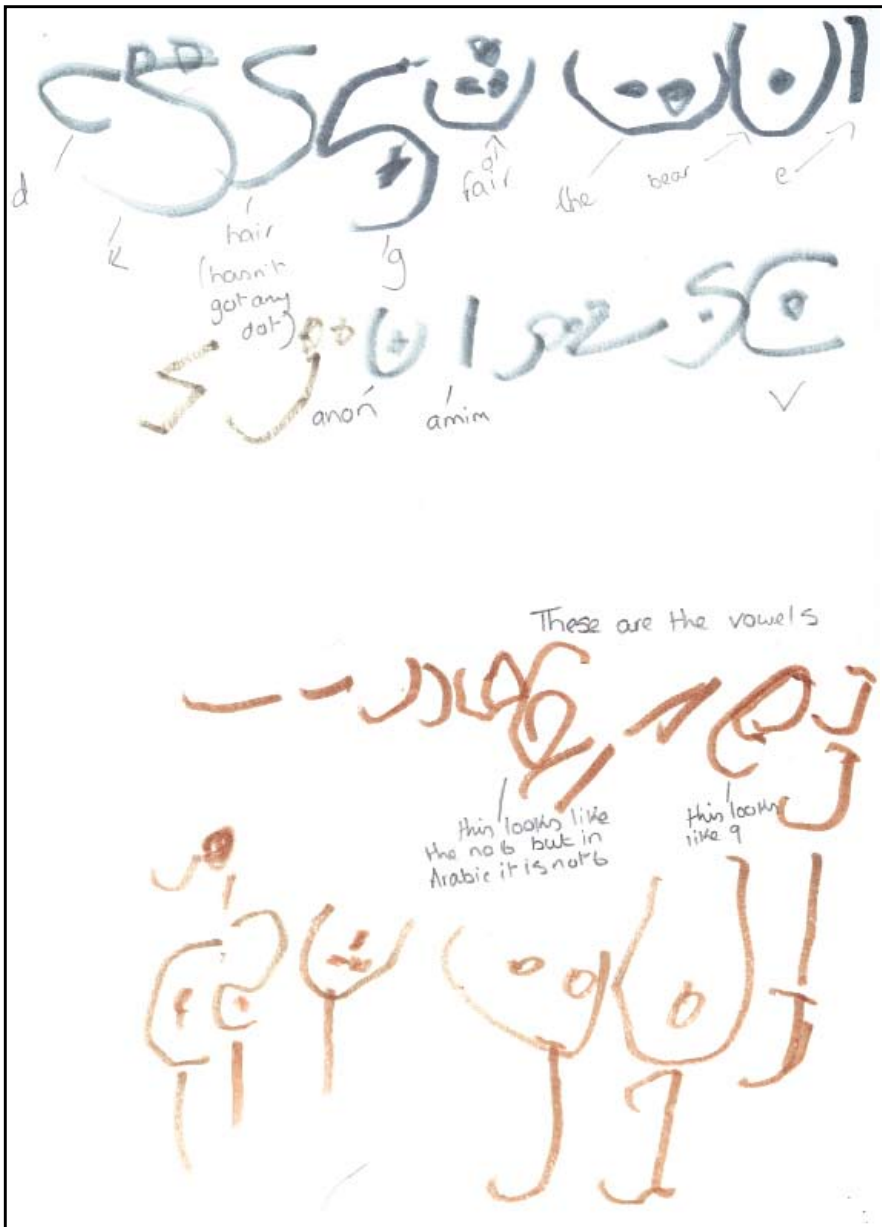
The children's drawings become a collaborative dialogue in which they began to make connections between here (Wingate) and there (Indonesia)

Photograph depicting child's work.  
Used with kind permission.

**Case study****Childminder****Multi-literate community**

The childminder observed one of her children making a range of marks and letter shapes, noting that he wrote from right to left. He worked on this with great concentration for a long period of time before sharing it with her, explaining that this was the writing he was learning at Saturday school. He went on to identify words and letters that he had written and was able to use his knowledge of both Arabic and English to help explain the similarities and differences to the childminder.

When she shared this example with the child's parents they were delighted that he was using the knowledge that he had gained at Saturday school. The childminder went on to support his multilingualism and provided examples of both scripts in her home environment. Following on from this he produced his own book in Arabic which he read to his childminder.



Photograph depicting child's work.  
Used with kind permission.

### **Effective practice**

Practitioners who offer effective practice fulfil these criteria:

- Provide opportunities for children to see adults writing: and encourage children to experiment with writing for themselves through making marks, personal writing symbols and conventional scripts.
- Value children's own graphic and practical explorations of Problem Solving, Reasoning and Numeracy.
- Ensure children feel secure enough to 'have a go', learn new things and be adventurous. Give opportunities for children to work alongside artists and other creative adults so that they see at first hand different ways of expressing and communicating ideas and different responses to media and materials.

### **Challenges and dilemmas**

- Working with parents and practitioners who have views about the mark-making and writing journey that may differ from those of the setting.
- Being proactive in building positive and genuine relationships with parents.
- Valuing what children can do and children's own ideas, rather than expecting them to reproduce somebody else's ideas.

### **Reflecting on practice**

- How do you support children in communicating their thoughts, ideas and feelings in a range of ways?
- How do you encourage parents to share their children's mark making, drawing and writing from home with the setting?
- Do all adults in both the home and setting environments value children's early mark making and recording systems?

# Enabling environments

**EYFS principle: The environment plays a key role in supporting and extending children's development and learning.**

3.1: Observation, assessment and planning: Babies and young children are individuals first and foremost, each with a unique profile of abilities. Schedules and routines should complement the child's needs. All planning starts with observing children in order to understand and consider their current interests, development and learning.

3.2: Supporting every child: The environment supports every child's learning through planned experiences and activities that are challenging but achievable.

3.3: The learning environment: A rich and varied environment supports children's learning and development. It gives them the confidence to explore and learn in secure and safe, yet challenging, indoor and outdoor spaces.

3.4: The wider context: Working in partnership with other settings, other professionals and with individuals and groups in the community supports children's development and progress towards the outcomes of Every Child Matters: being healthy, staying safe, enjoying and achieving, making a positive contribution and economic well-being.

## Thoughtful planning

In Reggio Emilia, the environment is sometimes referred to as the third teacher, and thoughtful planning, both indoors and outdoors, is the key to really effective early years provision. The EYFS acknowledges the crucial importance of both the emotional and the physical environment, and practitioners who view themselves as co-researchers, working alongside the children, will be able to see the environment from the child's point of view and reflect on the possibilities that it has to offer.

- Are there sufficient opportunities for children to get deeply involved, discover new lines of enquiry, experiment, explore, represent their thinking, and solve problems?
- Is the environment full of inspiration, providing provocations for learning that will capture the child's imagination?
- Does the environment enable children to be independent and make their own choices of materials and resources?
- Are there quiet spaces where children can ponder and play, as well as larger open spaces for them to test their new physical skills?

When the environment is right, there is a contagious sparkle in the air, the children are deeply engaged in their learning and practitioners' confidence soars as they are free to support each child constructively on their learning journey.

## The importance of choice

When children have opportunities for spontaneous mark making, drawing and writing in both the indoor and outdoor environment, the communication process supports their learning across all six areas of learning and development.

It is important that mark-making resources are carefully chosen, well organised and attractively presented, so that children can decide independently how they want to represent their ideas and which medium would best suit their purpose. When resources are attractively displayed, children's curiosity is aroused and they are tempted to try new experiences.



Ease of access will be a key consideration, so that children can see the tools and materials that are available, and select the resources as and when they need them. Practitioners who encourage children to take responsibility for themselves and their environment discover that, when resources are well organised, children can become increasingly autonomous. Even very young children become highly proficient at making decisions, selecting their materials, returning them to their rightful place after use and generally tidying up after themselves.

Practitioners need to feel confident in encouraging children to use resources flexibly, and should not be alarmed when children choose to move resources from one area to another or decide to combine different types of medium, as this is a valuable part of the creative experience.

The provision of both familiar and new tools and materials will provoke new ways of thinking and problem solving, while also providing some continuity of expectation and experience.



Photograph by Carruthers, E. *Mark Making Trolleys*.  
© Redcliffe Early Years Centre. Used with kind permission.

The provision of a mark-making trolley enables all the resources available inside, to be taken outside. (Children's Centre)



Photograph of Central mark making area.  
© Nikki Forsdike, 2008. Used with kind permission.

The practitioner has created a central mark-making area with individual portable writing boxes to enable children to use the resources flexibly in different areas of the environment. (Infants' School)

Further ideas on how to resource areas of the indoor and outside learning environments can be found in *A Place to Learn: Developing a Stimulating Learning Environment* (2007) – LEARN

## Experiences and resources to support mark making

The following suggested experiences and resources will support practitioners in making sure that a good range of mark-making experiences, tools and resources are available, both as part of continuous provision and as provocations for new thinking.

### Inside experiences

Registers – self-registration marks

Name writing – different purposes

Diaries and calendars – recording significant events

Telephone/address book – recording phone numbers and addresses

Cooking – writing recipes and ingredients, providing scales, clocks and timers to record weight, volume and time

Dance – making marks to music, ribbons on sticks

Office – taking messages, signing in or out

Art area – collages, painting, glueing, using clay

Quiet area – pads, paper and pens to record feelings

Graphics area – different types of paper, diaries, letters, envelopes and stamps, postcards, invitations, tickets, maps, plus opportunities for recording counting, measuring, calculating and quantities

Recording measurements in big block area

Music area – recording the beat, length of sounds

White boards in group areas – registration, names, recording counting and calculations

Role-play area, e.g. shoe shop – filling in slips and order forms, shoe sizes on boxes

Small world area – drawing maps, roads, homes, directions

### Outside experiences

Big chinks on floor

Mud and twigs of different lengths and sizes

Sensory play – making marks on builders trays in different textures

Playhouse with pads, paper, books

Gazebo – clipboards and paper, envelopes

Fabric sheets – with mud, sticks different lengths and widths

Maps – huge sheets, fat felt pens

Spray painting – water sprayers

Picnic table covered in large sheets of paper

Rolls of paper on the floor

Mark-making trolley – variety of equipment, different shapes and sizes

Forest area, making marks with sticks in the mud

Garage area, filling in slips, recording findings

**Resources and equipment****Paper**

Unlined paper – assorted sizes, shapes, colours, textures and types

Cardboard – assorted colours, textures and thickness

Music paper, graph paper, lined, plain

Pads, notebooks, envelopes (used and unused), stamps (used, real)

Sticky notes and labels

Address books, diaries, registers, spiral-bound notebooks

**Tools**

A range of writing tools of different thicknesses – multicoloured pens, markers, crayons, writing pencils, coloured pencils, felt tip pens, gel pens and biros

Pencil sharpeners

Stampers and ink pads

Staplers

Hole punchers

Rulers and scissors

Clay tools

A range of paints including watercolours, inks and dyes, gouache, block, powder and poster paint – and palettes to give children opportunities to mix their own colours

A range of brushes of varying sizes (big, small, fat, thin, square-tipped or pointed) and painting implements including rollers, sponges, stamps

A range of fixing materials – sticky tape, glue, glue sticks, stapler, paper clips, treasury tags, masking tape, string, wool

Examples of environmental print – notes, timetables, adverts, leaflets, junk mail

Ready-made books – zigzag, stapled and stapleless

Message and display boards/communication pockets (at child height for children to use independently)

Clipboards, whiteboards and blackboards (a range of sizes, both fixed and portable)

Name cards and number lines

**Outdoor learning**

Buckets of water and a range of tools, including paint brushes, rollers, artists' brushes, sponges and dish mops

Chunky chalks

Blackboards and whiteboards and assorted chalks, paints, felt and dry wipe pens

Large rolls of wallpaper or lining paper

Clipboards – with writing tools attached

Portable writing toolkit – filled with resources such as sticky notes, masking tape, selection of pens and pencils, selection of paper and envelopes

Mark-making trolley with a variety of equipment (see photo on page 23)

**Role-play**

Pots of pens and pencils

Diary or calendar

Calculator

Notebook

Sticky notes and sticky labels

Forms and junk mail

Variety of paper, envelopes, postcards and greetings cards

Noticeboard

Phones – mobile and landline (non-functional and toy) – and phone book/address book

**Construction area**

Paper – large rolls and sheets to support planning and designing

Range of pens and pencils

Clipboards

Plans and diagrams

Noticeboard

DIY catalogues and order forms

Notebooks

**Natural materials – sand, mud or clay**

Range of plastic grouting tools

Lolly sticks

Twigs

Feathers

**Water play**

Buckets of water and a range of tools, including paint-brushes, rollers, artists' brushes, sponges and dish mops

Colouring or glitter to add to water

Collections of containers for squirting or pouring

Garden hose and clear plastic tubing

**Malleable play**

Variety of substances – cornflour, non-allergenic shaving foam, crazy soap, dough, clay

**ICT**

Overhead projector – variety of transparent, translucent and opaque objects in a variety of colours; transparency paper and overhead or dry-wipe pens

Photographs – speech bubbles, think bubbles, captions, living books, speaking books

### Tuning into children

Careful observation and appropriate documentation of children's mark making will provide valuable insights into their interests, their preferences and their unique ways of being, as illustrated in the following case study. The commitment of the practitioner to understanding this child's aspirations has enabled her to provide an imaginative response, making sensitive changes to the environment through the thoughtful re-presentation of resources and materials.

### Painting project – Reggio Emilia



Photograph and extract from *Open Window, Reggio Children*, 1994. © Preschools and Infant-toddler Centers – Istituzione of the Municipality of Reggio Emilia, Italy. Used with kind permission

Educators observed that one child was interested in making big circular movements with the paint and brushes. As she attempted to do this, the paper moved about and creased so she couldn't achieve the circular movements satisfactorily.

Noting this, the educators made the intervention of cutting a hole in the middle of the paper for the child to sit in – thus enabling her to achieve her desired mission.

### Experimentation and exploration

Babies and young children need opportunities and encouragement to experiment with sensory and tactile materials in order to become confident mark makers. The provision of large open spaces, time and freedom to explore natural and recycled resources will help children to develop their coordination, motor skills and positive dispositions to mark making. An important benefit to this type of mark-making provision is the fact that marks made, for example, in sand, are not permanent, and control for making changes or re-exploring is held by the child.



Photograph depicting child's work. Used with kind permission.

This child was exploring mark making in dry sand, before he added water and found that this changed the type of marks he could make. He then collected natural materials from the investigative area and used these to represent a picture of 'my mum and me at the beach'. (Day Nursery)



Photograph depicting child's work.  
Used with kind permission.

In this example the childminder supported the children in making their own gloop mixture. The children were encouraged to add their chosen colours into the mixture. They spent the next hour exploring colour mixing and the marks they could make with their fingers. One child then collected cutters from the malleable trolley and experimented with making pictures in the gloop. (Childminder)



Photograph depicting child's work.  
Used with kind permission.

This child had just discovered the joy of writing his name. He took great pleasure in writing it in the foam, wiping it out with his hand and challenging himself to write it more quickly each time. (Pre-school)

### Writing for a purpose

It is important that children see practitioners regularly modelling mark making and writing in the setting. This will help children to see that we live in a literate world where marks provide a valuable means of communication. The following three case studies illustrate the ways in which the environment can provide meaningful contexts for children to share their experiences and communicate their thoughts and feelings.

### Case study

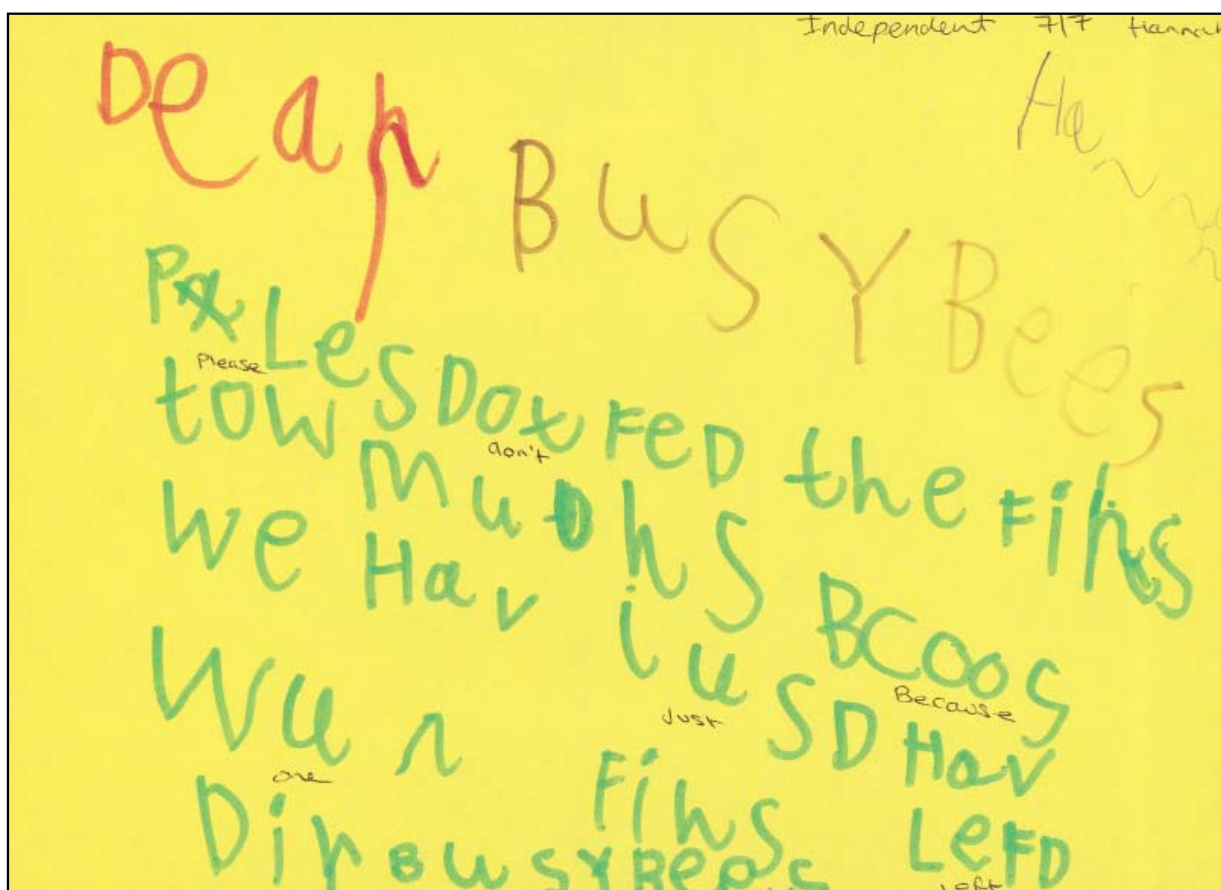
#### Saving Splosh (Reception children)

##### *Saving Splosh*

Following the demise of Splash, one of the class goldfish, due to person or persons unknown putting too much feed into the tank over the weekend, the headteacher wrote a letter explaining that she was worried about the remaining goldfish and asking the class what they thought should happen.

The children discussed, initially with their talk partners and then through feedback to the whole class, their ideas to avoid a similar fate for Splosh, their remaining goldfish. Suggestions from the children included writing a sign: 'Don't give the fish too much food, leave it to the fish feeder' (especially important as parents' evening was approaching and there would be a lot of visitors in the classroom).

Concerned to save the remaining fish, the children chose their materials and were completely absorbed in the task for over half an hour. At the end of this time a wide range of signs had been written, many of which had already been displayed on the cupboard next to the fish tank.



Photograph depicting child's work.  
Used with kind permission.

**Case study****Map making and route finding (Nursery school children)****Map making and route finding**

Photographs by Horniman, A. Boy in Hat. © Orchard Nursery School, 2008. Used with kind permission.

Patrick had been driving his bike around the garden and decided to make a map of where he had been. He found the large card and the pens from the writing area and started to draw.



Photographs by Horniman, A. Boy in Hat. © Orchard Nursery School, 2008. Used with kind permission.

I could hear him muttering under his breath, 'Under, over...around the tree'.

He drew the shape of his ride around the garden and added further shapes and marks as he talked to himself.





Photographs by Horniman, A. Boy in Hat. © Orchard Nursery School, 2008. Used with kind permission.

He took his map and tried it out, running round the garden following its instructions.

Jacob followed him on the bike, fascinated by what Patrick was doing.

Patrick came to the end of his map: 'I need more...'; he mused and went back to add more. Jacob joined him and they shared the map making with each other.



Photographs by Horniman, A. Boy in Hat. © Orchard Nursery School, 2008. Used with kind permission.

Practitioners should support children in making links by:

- Using directional language to encourage children's spatial awareness.
- Providing maps and diagrams to support investigation.
- Using mathematical names (two- and three-dimensional) when describing marks and objects.
- Talking about maps and routes and how children's marks illustrate these.
- Sharing stories.

**Case study****Reception children****Film and Literacy**

This school was involved in the Barnet Film and Literacy project, which has been running very successfully from the EYFS to Key Stage 3 for the past three years. Children have an opportunity to watch short film clips which are then used as starting points for discussion, focusing on character, plot and story sequencing.



Photograph depicting child's work.  
Used with kind permission.

The children are then supported in developing a class storyline, based on their ideas, in order to produce their own film. The class agree the key characters of the film before developing their individual storyboards. The children are encouraged to record their plots mainly through drawings, as they will need to refer to the storyboards when they set up each scene at the filming stage. The films have now been shown at the Barnet Film Festival.



Photograph depicting child's work.  
Used with kind permission.

### Effective practice

Practitioners who offer effective practice fulfil these criteria:

- Make sure there is time and space for children to concentrate on mark making, mathematical graphics, drawing and writing experiences.
- Ensure children have the opportunity to use mark making, mathematical graphics, drawing and writing to explore and develop their own interests.
- Provide a stimulating environment in which creativity, originality and expressions are valued (see the resource list at the beginning of this section).
- Involve themselves in children's mark making, mathematical graphics, drawing and writing experiences by both modelling the process and recording children's thoughts.
- Use the indoor and outdoor environments as resources to support children's mark making, mathematical graphics, drawing and writing.
- Provide a wide variety of resources for children that are sufficient, challenging and interesting and that can be used in a variety of ways to express their thoughts, ideas and understanding through mark making, mathematical graphics, drawing and writing.

### Challenges and dilemmas

- Ensuring that there is a range of mark-making materials available for children to access independently.
- Providing materials that will support mark making, mathematical graphics, drawing and writing in areas of the indoor and outdoor learning environment other than the writing area.
- Allowing plenty of time for children to browse and share mark-making resources with adults and other children.

### Reflecting on practice

- What do adults do in your setting when a child is mark making, drawing or writing?
- Can children access mark-making resources independently and are they able to take resources from one area of the environment to another?
- How do you know how children are progressing in their mark-making journeys across all six areas of learning and development?
- If children bring in drawings, writing or models from home what happens to them?
- How do you encourage a multi-literate community in your setting through valuing and respecting different community languages and scripts?

# Learning and development

**EYFS principle: Children develop and learn in different ways and at different rates and all areas of learning and development are equally important and interconnected.**

4.1 Play and exploration: Children's play reflects their wide-ranging and varied interests and preoccupations. In their play children learn at their highest level. Play with peers is important for children's development.

4.2 Active learning: Children learn best through physical and mental challenges. Active learning involves other people, objects, ideas and events that engage and involve children for sustained periods.

4.3 Creativity and critical thinking: When children have opportunities to play with ideas in different situations and with a variety of resources, they discover connections and come to new and better understandings and ways of doing things. Adult support in this process enhances their ability to think critically and ask questions.

4.4 Areas of learning and development: The EYFS is made up of six areas of learning and development. All areas of learning and development are connected to one another and are equally important. All areas of learning and development are underpinned by the principles of the EYFS.

## Making meaning through marks

Language is the child's first encounter with symbolic representation as they gradually learn that the spoken word carries meaning, and some parallels can be drawn between the development of early language and mark making. In the earliest months, babies babble for the sheer physical pleasure of hearing the sounds that they can make and they enjoy imitating and experimenting, with increasing control over the many combinations of muscles in their lips and tongue.

Babies' scribbles develop in much the same way – initially they take delight in the pure physicality of the activity, and then gradually realise that they can control the marks they make with increasing dexterity. In the same way that, through interactions with interested adults, babies learn that spoken words carry meaning, they discover that the marks that they make can also communicate their feelings, thoughts and ideas. Mark making and speech provide children with powerful tools for thinking, reasoning and problem solving.

This principle recognises that all areas of learning are interconnected and that children learn best through active, play-based experiences in a carefully planned environment that is rich in provocations for thinking and new learning. Mark making gives children an opportunity to explore and express their thought processes and to apply, practise and consolidate their rapidly developing new skills. Marks can also help to make children's thinking visible and provide opportunities for adults to work alongside children, engaging with them as key partners in the co-construction of meaning.

Alongside the use of marks as a form of communication it is important that practitioners acknowledge the equal value of drawing, painting and model making as ways in which children can present their thoughts and ideas. Kress (1997) defines the use of all of these strategies as 'multi-modal' learning. He believes that the child naturally develops as a learner through combining what they are doing with what they are feeling and thinking.

The two case studies in this section illustrate how mark making can support children's thinking skills in Problem Solving, Reasoning and Numeracy and in Communication, Language and Literacy.

## Problem Solving, Reasoning and Numeracy

The Williams Review makes the very valid point that practitioners will generally give more attention to children's early writing than to their mathematical graphics, and that 'emergent writing' is now a well-recognised term. The review identifies the need to strengthen mathematical pedagogy so that children's natural interest in numeracy, problem solving, reasoning, shape and measures can be fostered.

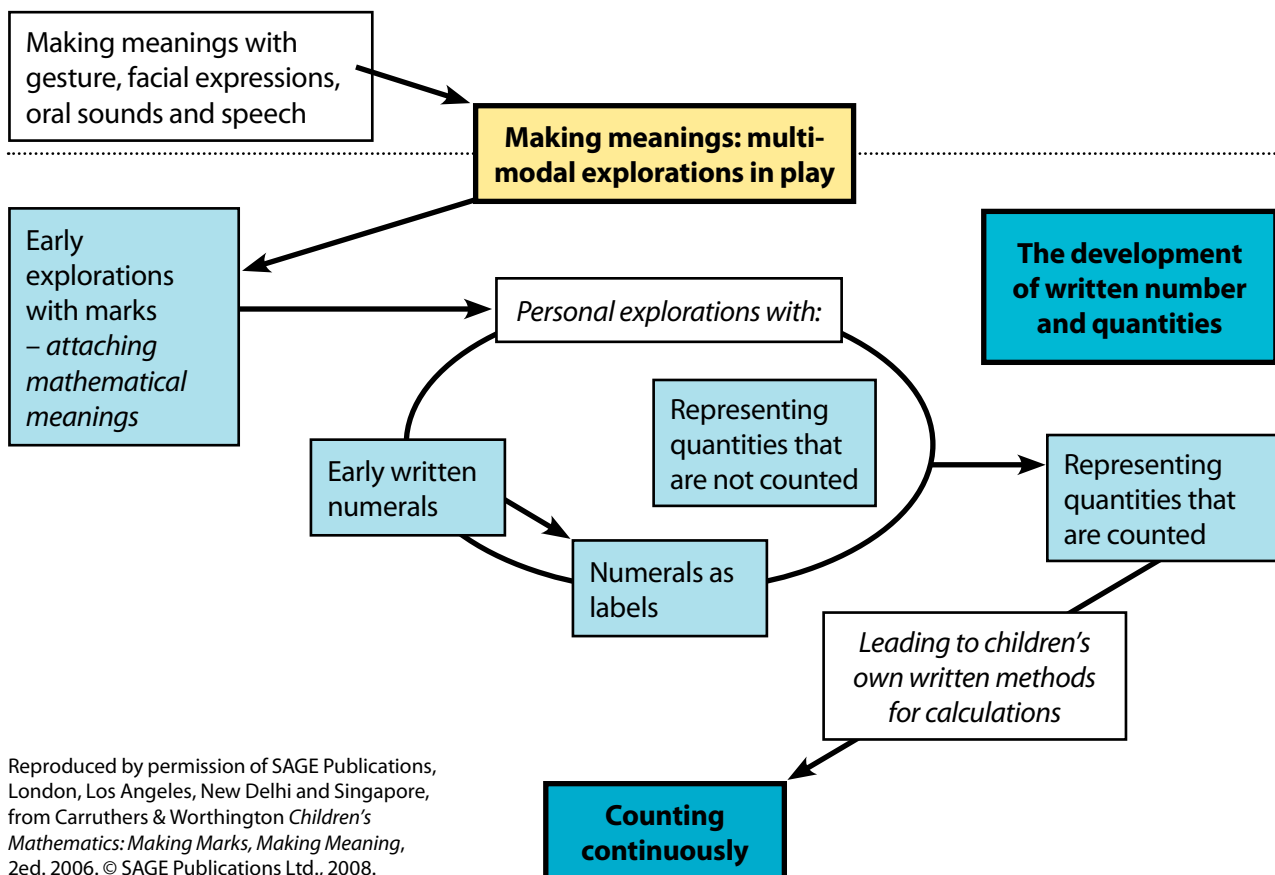
### Children's mathematical mark making

Elizabeth Carruthers and Maulfry Worthington explain how children use their marks and representations to support their thinking:

Children's mathematical graphics begin in play and support their developing understanding of the standard abstract written symbolism of mathematics.

Children choose to use their own mathematical graphics to represent their mathematical thinking; in a sense they are thinking on paper. Children, when given the opportunity, will choose to make mathematical marks which can include scribbles, drawing, writing, tallies, invented and standard symbols. Just as in children's early writing, there is also a development in children's early mathematical marks (see Carruthers and Worthington taxonomy, 2007).

Carruthers and Worthington's taxonomy (1): the development of children's mathematical graphics - beginnings in play



The taxonomy above charts the development of children's mathematical graphics from their earliest explorations with marks in play as they explore number and quantities.

The child develops in their own way, but will exhibit these aspects of making meaning through play leading to their own and eventually recognised written methods of calculation. The following case studies exemplify this.

**Case study****Early written numerals**

Some children refer to their early marks as numbers and begin to explore ways of writing numerals. At this stage their marks are not recognisable as numerals to an adult, but the marks may have number-like qualities.



Reproduced by permission of SAGE Publications, London, Los Angeles, New Delhi and Singapore, from Carruthers & Worthington *Children's Mathematics: Making Marks, Making Meaning*, 2ed. 2006. © SAGE Publications Ltd., 2008.

Matthew (3 years 1 month)

Matthew read his spontaneous marks as 'I spell 80354'. Matthew knows that marks carry meaning and that they can sometimes represent numbers. He also knows that you can write numbers down.

**Numerals as labels**

Reproduced by permission of SAGE Publications, London, Los Angeles, New Delhi and Singapore, from Carruthers & Worthington *Children's Mathematics: Making Marks, Making Meaning*, 2ed. 2006. © SAGE Publications Ltd., 2008.

Matt (4 years 11 months) is interested in trains and especially James the engine. He uses the numeral 5 in his drawing to label the engine.

Young children are immersed in print as symbols and labels in their environment, in their home, on television and from their community. Children often take notice of these labels and are interested in how they are used; they can write in contexts that make sense to them.

**Case study****Representing quantities that are not counted**

Children represent quantities that they do not count.



Reproduced by permission of SAGE Publications, London, Los Angeles, New Delhi and Singapore, from Carruthers & Worthington *Children's Mathematics: Making Marks, Making Meaning*, 2ed. 2006. © SAGE Publications Ltd., 2008.

Charlotte (4 years 1 month) clutching a handful of felt-tip pens in each hand shouted, 'Hundreds and pounds, hundreds and pounds,' as she made marks with her friend Jessica in the nursery.

**Case study****Representing quantities that are counted**

Reproduced by permission of SAGE Publications, London, Los Angeles, New Delhi and Singapore, from Carruthers & Worthington *Children's Mathematics: Making Marks, Making Meaning*, 2ed. 2006. © SAGE Publications Ltd., 2008.

Jenna (4 years 2 months) has represented raindrops and counted 15 raindrops.

During the same period that children represent uncounted quantities, they may also begin to count the marks or items they have represented and represent items they have counted.



### The pedagogy of children’s mathematical marks

The following elements are essential to support children’s mathematical marks:

- an environment that gives children many opportunities to explore mark making;
- assessment that is positive and responsive to children’s marks and informs the next steps of learning;
- adults that model mathematics in meaningful contexts;
- adults that understand and can therefore value children’s marks.

It is crucial that practitioners understand that children’s mathematical mark making often arises spontaneously through a need to communicate in a meaningful context. Through their marks, children’s thinking becomes visible and practitioners then gain valuable insights into their developing understanding of complex concepts. When children are asked to record, after they have finished a practical mathematics activity, motivation and meaning are often lost. Recording may then lack in-depth quality of thinking and is more like copying. Children’s mathematical graphics are their own personal response to meaning making and involve deep levels of thinking.

It is important that children make links between the spoken and written representations.

### Creativity and critical thinking

The commitments linked to the principle of learning and development help us to understand the way in which creativity and critical thinking support children’s developing metacognitive skills across all six areas of learning. When practitioners recognise and value the sophistication and complexity of children’s thinking, they can plan experiences that support children in the development of the key aspects of learning and development – reasoning, evaluation, creativity, enquiry, problem solving and information processing.

### Children’s creative thinking and representation

- Creativity involves taking risks and making connections, and is strongly linked to play.
- Creativity emerges as children become absorbed in action and explorations of their own ideas, expressing and transforming these, using a variety of materials and processes.
- Creativity involves children in initiating their own learning and making choices and decisions.
- Children’s responses to what they see, hear and experience through their senses are individual, and the way they represent their experiences is unique and valuable.

This diagram by Kathy Ring clearly shows the links between the experiences and opportunities available to children and the impact on their development.

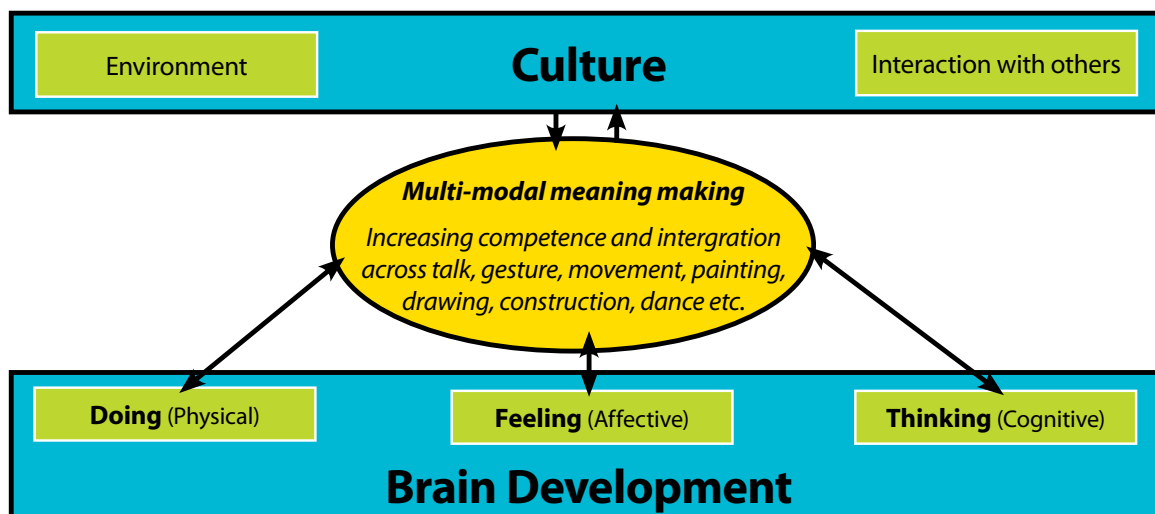


Diagram by Ring, K. Child Making Sense of the World. © Kathy Ring, 2004. Used with kind permission.

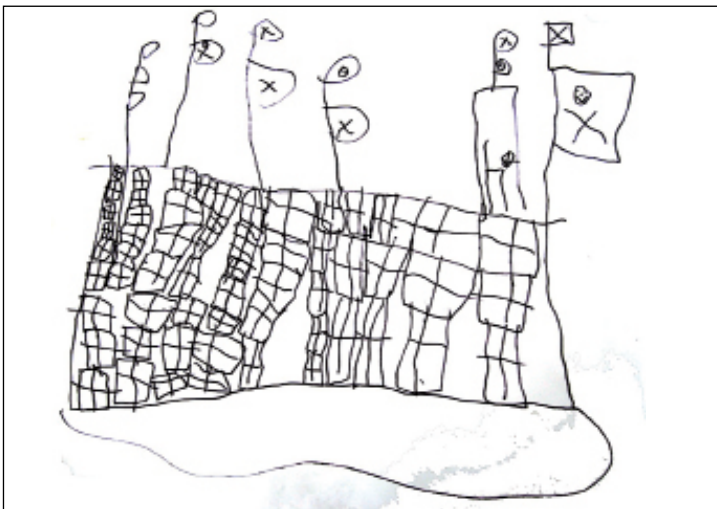
The following case study illustrates the power of children's graphic representation to make learning visible across the six areas of learning and development and particularly in language for communication and thinking.

### Case study

#### Communication, Language and Literacy (Reception children)

##### Pirates and submarines:

At a primary school in Bath, the practitioner worked with a small group of Reception class children, an artist and parent documenters to record the children's play in an outside garden. Several children talked about the boat they wanted to build, in particular a pirate ship. David's drawing shows his planning and design for the large ship the children had in mind.



Photograph depicting child's work.  
Used with kind permission.

David was drawing a design of the boat. 'It's got a skull and crossbones flag and lots of windows in the hull – they'll be above the water. Everyone is going to be inside, looking out of all the windows.'

David drew a clear plan and a parent documenter wrote a shopping list! 'It's going to be bigger than the school; it will fit into the world.'

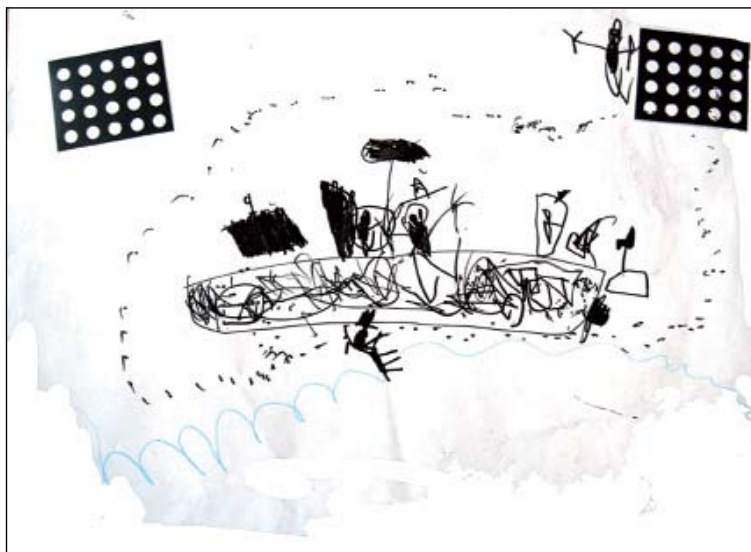
Luke was inspired to draw James Bond's submarine. He did this spontaneously and calligraphically.



Photograph depicting child's work.  
Used with kind permission.

Luke was totally absorbed when drawing this submarine; he was engaged in very speedy mark making, decisive, calligraphic. It was almost like watching someone compose music on paper.

'These (lines) are the treasure.'



Photograph depicting child's work.  
Used with kind permission.

Luke turned his paper over to draw the sea and a giant pirate ship: 'This boat belongs to a pirate that can chop somebody's skin off. I'm drawing Captain Hook. I'm going to draw some treasure too.'

Luke was drawing Captain Hook's footprints all over the page (little black dots), and sticking 'traps' on his drawing: 'One is Peter Pan's and one is Captain Hook's. They are going to trap each other.' He drew a crocodile.

Luke: 'Captain Hook is falling in the water getting eaten by the crocodile.'

Luke stuck a smooth, shiny stone to his paper, but it didn't stick. Then he stuck some foam on his picture: 'That's for Peter Pan (the foam); he doesn't want to fall in the water so he puts it in his boat.'

The practitioner affirmed her belief that children need large-scale materials and plenty of space to draw. The children achieved great satisfaction from their engagement with these raw 'intelligent' materials. The adults noted their strong use of language and storytelling and also the benefits of such constructive play on their emotional development. Having a regular team of parent documenters also contributed to the sense of community development among all the parents too.

The group maintained their interest in the pirate theme for several months. Treasure, treasure maps, pirate books, stories, adventures with a crocodile, all child-initiated, were evidence of the engagement.

David's mother reported that she has changed the way she works with her children at home – she allows much more freedom when, for example, they are painting. The experience of documenting has opened her eyes – children are much more capable than she had thought. Luke's mother reported that he talks about the work all the time and he now does lots of drawing at home.

**Effective practice**

Practitioners who offer effective practice fulfil these criteria:

- Celebrate the interconnectivity of the six areas of learning and development.
- Show sensitivity to the many different ways that children express themselves and encourage children to communicate their thoughts, ideas and feelings through a range of expressive forms.
- Talk to children and engage them as partners in conversation. Show them how what they say can be written and read.
- Plan activities that offer challenge and plenty of opportunities for physical activity to support their developing coordination skills.
- Present a wide range of experiences and activities to which children can respond to by using many of their senses.
- Allow sufficient time for children to express their ideas through a wide range of types of representation.

**Challenges and dilemmas**

- Ensuring that children have time and encouragement to use a range of resources, to develop resilience, persistence and deep involvement in their learning.
- Planning opportunities for adults to observe children's mark-making processes, rather than focusing only on the end product.
- Providing time for children to explore problems and ideas and opportunities for them to revisit and extend their thoughts.

**Reflecting on practice**

- How do you provide an environment which values children's creativity, originality and expressions?
- How do you monitor children's progress in mark making and writing and use this information to inform next steps in learning?
- What opportunities do you provide to share and celebrate children's mark making and writing successes with the child, their peers, practitioners and parents?
- How do you maximise opportunities for developing children's mathematical thinking and graphics?

# Raising awareness of effective practice

We are hoping to offer practitioners an opportunity to share their action research on early mark making via our website. Web-based case studies will need to demonstrate how research-based practice has informed and improved the quality of the provision for mark making across the EYFS. If you have any examples that you would like to share, please contact [earlyyears@nationalstrategies.co.uk](mailto:earlyyears@nationalstrategies.co.uk)

Criteria for selection are explained in the following box.

Case studies – what we are looking for:

- Clear support for the principles of EYFS
- Practitioners trusting the children's imagination, ideas and self-expression and using these as starting points for planning
- Practitioners reflecting on their practice and demonstrating the impact on the quality of their provision
- Practitioners demonstrating respect for parents, children and practitioners by capturing their perspectives and voices

## References

Ashton-Warner, S. (1965) *Teacher*. London: Penguin Books

Carruthers, E. and Worthington, M. (2007) (2nd edn) *Children's Mathematics: Making Marks, Making Meaning*. London: Sage Publications

DfES (2000) *Mathematical Vocabulary*. London: DfES

DCSF (2008) *Teaching Effective Vocabulary. What can teachers do to increase the vocabulary of children who start education with a limited vocabulary?* London: DCSF

DCSF (2008) *Early Years Foundation Stage. Setting the Standards for Learning, Development and Care for Children from Birth to Five*. London: DCSF

DCSF (2008) *Sir Peter Williams' Independent Review of Mathematics Teaching in Early Years Settings and Primary Schools*. London: DCSF

Dowling, M. (2005) *Supporting Young Children's Sustained Shared Thinking – An exploration*. Early Education. London: Early Education

Kress, G. (1997) *Rethinking the Paths to Literacy*. London: Routledge.

Matthews, J. (1999) *The Art of Childhood and Adolescence: The Construction of Meaning*. London: Falmer

Matthews, J. (2003) *Drawing and painting; children and visual representation* (2nd edition) London: Paul Chapman Publishing.

Ring, K. (in press) *Moving into Writing: The significance of drawing*. Hull City Council.

Stevens, J. (2007) *Maths In Stories* (2008) London: BEAM Publications

Cartwright, P., Scott, K. and Stevens, P. (2007) *A Place to Learn: Developing a Stimulating Learning Environment*. Lewisham Early Years Advice and Resource Network.

## Further reading

Anning, A. and Ring, K. (2004) *Making Sense of Children's Drawings*. Maidenhead: Open University Press.

Ashton-Warner, S. (1965) *Teacher*, Penguin Books

Brock, A. and Rankin, C. (2008) *Communication, Language and Literacy from Birth to Five*. London: Sage Publications Ltd.

Bromley, H. (2006) *Making My Own Mark: Play and Writing*. London: The British Association for Early Childhood Education.

Carruthers, E. and Worthington, M. (2006) (2nd edn) *Children's Mathematics. Making Marks, Making Meaning*. London: Paul Chapman Publishing.

Children's Mathematics Network: [www.childrens-mathematics.net](http://www.childrens-mathematics.net)

David, T. et al (2000) *Making Sense of Early Literacy: A Practitioner's Perspective*. Stoke on Trent: Trentham Books.

Duffy, B. (1998) *Supporting Creativity and Imagination in the Early Years*. Buckingham: Open University Press.

Dweck, C. (2006) *Mindset: the new psychology of success*. New York: Ballantyne Books

E2BN nursery project: [www.Nursery.e2bn.org](http://www.Nursery.e2bn.org)

Edwards, C., Gandini, L. and Forman, G. (1998) 'The Hundred Languages of Children', *The Reggio Emilia Approach – Advanced Reflections*. Ablex Publishing

Hall, N. and Robinson, A. (2003) (2nd edn) *Exploring Writing and Play in the Early Years*. London: David Fulton Publishers Ltd.

Kress, G. (2003) *Literacy in the New Media Age*. Abingdon: Routledge.

National Centre for Excellence in the teaching of mathematics: [www.ncetm.org.uk/](http://www.ncetm.org.uk/)

Self-evaluation from the above website is available at: [www.ncetm.org.uk/selfevaluation](http://www.ncetm.org.uk/selfevaluation)

Pahl, K. (1999) *Transformations, Children's Meaning Making in a Nursery*. Stoke-on-Trent: Trentham Books.

# Acknowledgements

We would like to thank the following individuals and organisations who generously offered advice and gave permissions to include their work.

Paddy Beals, Elizabeth Carruthers, Kathy Ring, Maulfry Worthington, and Sightlines Initiative and Reggio Children.

We should also like to acknowledge practitioners from the following settings and organisations in order of appearance:

- Redcliffe Children's Centre, Bristol
- Sightlines Initiative and Reggio Children
- Castle Hill Infant School, Ipswich
- Busy Bees Pre-School, Felixstowe
- Hunnitots Day Nursery, Ipswich
- Pickhurst Infant School, Bromley
- Orchard Nursery School, Tibberton, Gloucestershire
- Two accredited childminders from Barnet
- Danegrove Primary School, Barnet
- Wingate Community Nursery School, County Durham
- 5x5=Creativity: researching children researching the world
- St Stephen's Primary School, Bath
- Nikki Forsdike, Early Education Team, Suffolk County Council.

And with particular gratitude to Evie and her mum.

All photographs depicting children's work have been used with kind permission.

Photograph by Andrews, N. Child drawing on board © Nancy Andrews, 2008. Used with kind permission.

Photograph by Carruthers, E. *Mark Making Trolleys*. © Redcliffe Early Years Centre. Used with kind permission.

Photograph of Central mark making area. © Nikki Forsdike, 2008. Used with kind permission.

Photograph and extract from *Open Window*, Reggio Children, 1994. Preschools and Infant-toddler Centers – Istituzione of the Municipality of Reggio Emilia, Italy. Used with kind permission.

Photographs by Horniman, A. *Boy in Hat*. © Orchard Nursery School, 2008. Used with kind permission.

Figures and extract from Carruthers & Worthington *Children's Mathematics: Making Marks, Making Meaning*, 2ed. 2006. Reproduced by permission of SAGE Publications, London, Los Angeles, New Delhi and Singapore. © SAGE Publications Ltd., 2008.

Diagram by Ring, K. *Child Making Sense of the World*. © Kathy Ring, 2004. Used with kind permission.

Audience: Early Years Practitioners

Date of issue: 10-2008

Ref: **00767-2008BKT-EN**

Copies of this publication may be available from:

**[www.teachernet.gov.uk/publications](http://www.teachernet.gov.uk/publications)**

You can download this publication and obtain

further information at: **[www.standards.dcsf.gov.uk](http://www.standards.dcsf.gov.uk)**

Copies of this publication may be available from:

DCSF Publications

PO Box 5050

Sherwood Park

Annesley

Nottingham NG15 ODJ

Tel 0845 60 222 60

Fax 0845 60 333 60

Textphone 0845 60 555 60

email: [dcsf@prolog.uk.com](mailto:dcsf@prolog.uk.com)

© Crown copyright 2008

Published by the Department for Children,  
Schools and Families

Extracts from this document may be reproduced for non-commercial research, education or training purposes on the condition that the source is acknowledged as Crown copyright, the publication title is specified, it is reproduced accurately and not used in a misleading context.

**The permission to reproduce Crown copyright protected material does not extend to any material in this publication which is identified as being the copyright of a third party.**

For any other use please contact

[licensing@opsi.gov.uk](mailto:licensing@opsi.gov.uk)

[www.opsi.gov.uk/click-use/index.htm](http://www.opsi.gov.uk/click-use/index.htm)

**80% recycled**

This publication is printed on 80% recycled paper



When you have finished with this publication please recycle it

department for  
**children, schools and families**