



# EYFS Profile exemplification for the level of learning and development expected at the end of the EYFS

## Mathematics

### ELG12 – Shape, space and measures

**Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.**

## **Exemplification of expected descriptors**

This document demonstrates national standards for one of the 17 Early Years Foundation Stage (EYFS) Profile Early Learning Goals (ELGs). It shows the level of learning and development expected at the end of the EYFS.

The collection of evidence in this document illustrates the 'expected' descriptor. No one piece of evidence meets the ELG as a standalone item; together they illustrate the pitch and breadth of a particular 'expected' level of learning and development.

This document illustrates how information can be gathered to support EYFS Profile judgements using a variety of evidence and forms of presentation. However there is no prescribed method of gathering evidence, nor any expectation that it should be recorded as shown in this document. The exemplification is not intended to be an exhaustive list for schools to follow.

The examples in this collection include 'one off' observations, samples of children's work, photographs and contributions from parents. Many methods of recording a child's attainment are not included in this exemplification for practical reasons (for example video recordings). Practitioners will also build up a significant professional knowledge of each child which will not be recorded but which must be considered when EYFS Profile judgements are made.

When completing an EYFS Profile, practitioners should make a best-fit judgement for each ELG. Practitioners must consider the entirety of each ELG, taking an holistic view of the descriptor in order to create the most accurate picture of the child's overall embedded learning. Sections of each descriptor must not be seen in isolation.

Exemplification material should always be viewed in the context of a specific aspect of learning in order to retain an accurate focus. However, practitioners should be aware that a child's learning and development are not compartmentalised. Focussing on one aspect of learning will shed light on several other related areas.

The information in this document should not be regarded as either exclusive or inclusive of any child, no matter what their background or family circumstances. It is intended to be used without bias, preference or discrimination and schools and practitioners must ensure that they operate within all aspects of the statutory EYFS framework.

Edward was in the line waiting to go outside when he said; "I'm fourth!" Kamran misunderstood him and said; "I'm four!" Edward said; "He's not. Look!" and showed him what he meant by pointing to the children in the line and counting; "First, second, third, fourth – me. He's fifth!"

Kieron played with a ball outside. At one point he threw the ball over my head and said; "that went over your head, Miss Rayner!"

Gracie told me; "Not tomorrow, the day after... it's my birthday".

Monica and Cameron played in the pet shop together. Cameron said; "We need a 2p" and Monica picked up a 2p coin and said; "Here."



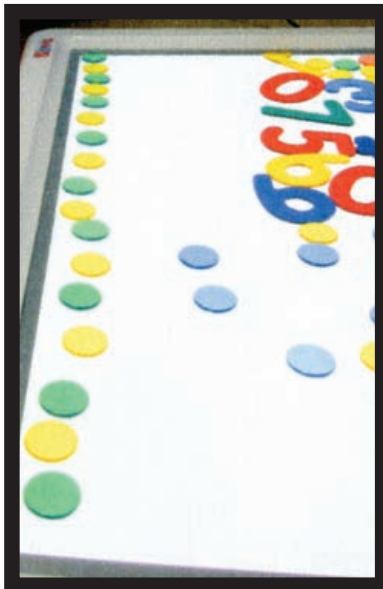
Ella and Thomas made a repeating pattern with the plastic bricks (an adult directed challenge). The tower also had to be taller than them. They worked well together... Ella; "There you go Thomas" and passed him a brick. Thomas; "Hang on – this one next". Ella; "It's nearly taller than us!" Ella; "It's going to fall over. It's getting taller than us". Thomas; "One more! Hang on!"

When he had finished listening to 'The Giraffe who got in a Knot', Thomas correctly identified that the giraffe was "taller" at the end of the story (spontaneous comment), as he no longer had a knot in his neck.

Cameron was trying to pedal the taxi bike with a heavy passenger on the back. He said; "I can't do it with you, you're too heavy!"

Julia used the balance in the outdoor classroom. She put a large pebble in one of its buckets and placed pebbles in the other bucket until this side was lower than the other side. I said; "Oh look, that side has gone down. Why do you think that has happened?" Julia replied; "Because it's heavier."

Esme was making snail models with the dough. She said "the big piece will make a big snail. One is the littlest, one is the middle size one and this is the bigger one. The big one is heavy and the little one is light. One is large because I used lots of dough. The little one was lightest because I used a little bit of dough."



Euan made a sandcastle outside. He put his spade through the middle of it and said; "that's half!".

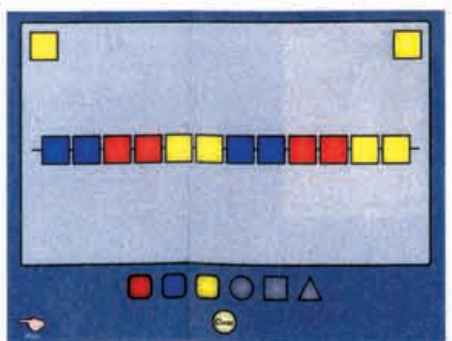
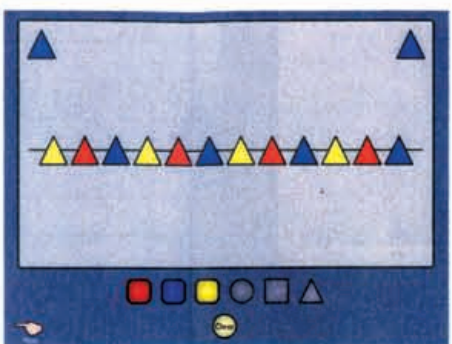
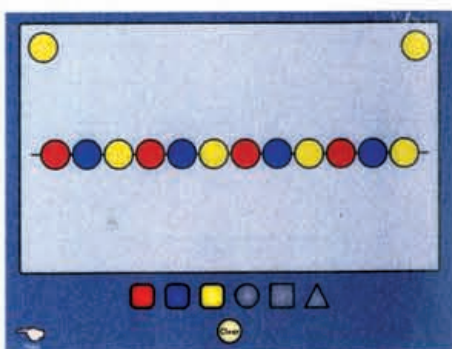
Thomas made a repeating pattern on the light box (green, yellow, green, yellow).

Gracie was cutting out "circles". I asked her how she knew that what she was cutting out was a circle and she said; "it's got no corners."

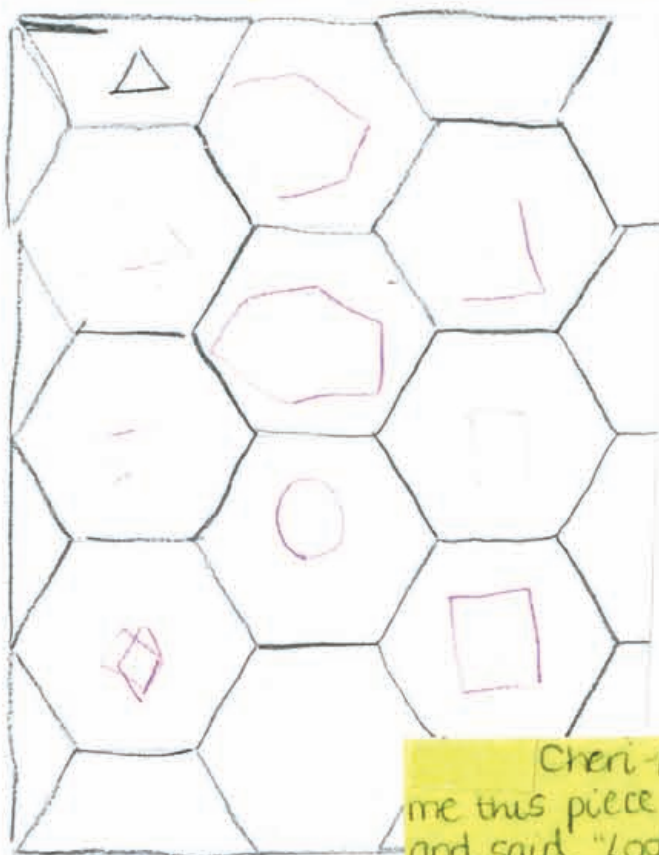
Zak used the connecting camels and independently made a 'red, blue, red, blue' repeating pattern. Zak said to me; "Look at this – red, blue, red, blue... Now I try this one..." He then matched the connecting camels to the camels on the pattern card to make a 'blue, blue, orange, blue, blue, orange' repeating pattern.



2.11.10 AI Cheri-May enjoyed using the computer to create her own symmetrical pattern after seeing some Rangoli patterns. We were looking at how Hindus celebrate Diwali. She used the pointer to select colours and draw on the Smartboard. She said "Look at my pattern!" when she had finished.



Cheri-May made some fantastic repeating patterns on the smart-board today. She chose the shape and colour and decided what her pattern would be. Cheri-May correctly named all the colours and shapes and could tell me what would come next in each pattern.



Cheri-May sorted the shapes into two groups - "The hexagons can all go together" She made another group with all different shapes in "Why are those all in that group, what have they all got that's the same?" I asked. "All of them have got four sides" Cheri-May said. Well done!

Cheri-May brought me this piece of paper and said "Look, I've done a hexagon." Cheri-May had drawn a hexagon over the lines of the hexagonal paper. "How do you know it's a hexagon?" I asked. "Because it's got 1, 2, 3, 4, 5, 6 sides." She pointed to each side as she said each number. Cheri-May went back to the writing area and drew some more hexagon shapes and then some different shapes inside the hexagons! Cheri-May named all the shapes - square, rectangle, circle, diamond and hexagon. Well done Cheri-May!

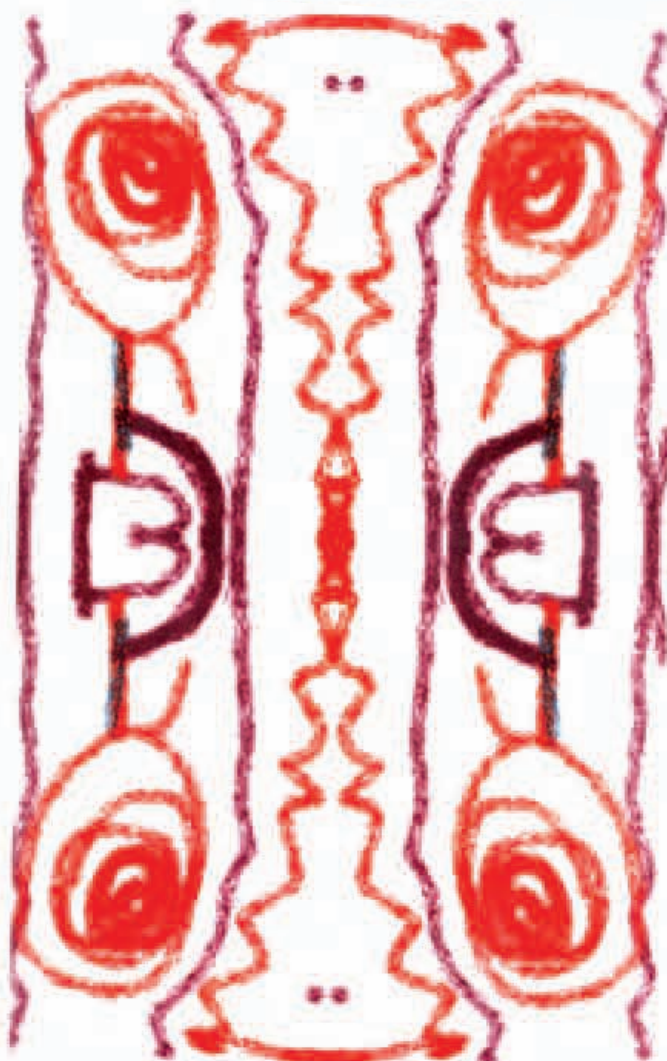




Cheri-May has been interested in colours and patterns today in the maths area.

She took the rainbow apart and then put it all back together. She used the words smallest, medium and biggest.

Cheri-May spent ten minutes exploring pattern and colour in the investigation area. She watched Matthew for a short while as he made a long pattern using beads. "That's good" Cheri-May said. She then selected some mirrored card and started to design her own pattern. Placing her beads carefully and purposefully.





Charlie Keira & Jhen  
 Tristano Scan  
 The Marissa Scan  
 7  
 12



Charlie was playing with the cars outside, he was pushing them from across the other side of the ramp when he went off and found some chalk.

He came back and marked the playground where each car stopped. He then went and got a tape measure to measure how far apart the cars were.

He told Keira how far apart they were but she kept forgetting, so she suggested they wrote it down.

Once Keira was ready Charlie told her which number to copy from the tape measure onto her recording sheet.

He also pointed at the numbers so she was clear about which one to copy!

He correctly pointed to 5, 7, 3 and 12!





In the role play area Isobel counted how many coins she had.

I need to give the money to my friend. I've got ten pence.

I was building with some 3 D shapes.

"When the sphere is cut in half it has a flat side and a curved side. The flat side is a circle"

I decided to make some butterflies with the shapes in the office.

"I'm using a triangle for the bottom and two squares for the wings but I will turn them around so they look like diamonds".

#### Playing with 3D shapes



#### Making a shape butterfly







Alfred and Jacob were using cubes to make towers. They commented as they added more bricks that their tower was getting longer and longer. Jacob asked Alfred if he thought they could make it as tall as them. Alfred replied that they would need to go and find a few more cubes. They then discussed how tall they could make the tower if they added lots more bricks. 'We would need loads more it make it as tall as the ceiling', Jacob commented.

Kelise was working in the number area and she opened a drawer and found a large measuring tape.' Look we can find out how tall we are if we use this. We need to stand up against the board and we can check to see who is tall and who is short. My mummy has one of these on the door at home and we use it to see how much I have grown'

Ellie was working at the water tray and she knew that it would take 'quite a few' small bottles of water to fill the larger bottle she had in her hand.

Shaun was at the creative table making himself a headband. He had cut a length of paper and put it up around his head. When the ends wouldn't meet he commented that it was too short that he would need to get some more paper and add it on to the end. He cut himself a length of paper, stuck it on with sellotape and then re-measured it to check that it fitted. He then put his fingers on the right place and asked the adult to staple the ends together.

**Observation:**

Yahya says, "Mrs Philips, it's fantastic Friday today", as he comes into school first thing. "I'm going to see my aunty tomorrow, on Saturday."

**Observation:**

Engaged with class in shared story writing activity. Adult suggested children think of a time of day for the story. Yahya says "if it's early evening it could be six-eighteen p.m."

**Observation:**

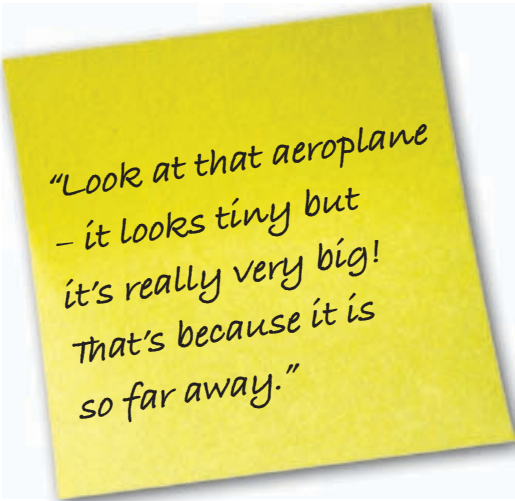
Yahya is using the pointer stick, pointing to the weather chart. "Today is Friday 25th of November," he said to Mahdi who is standing next to him. "So yesterday was Thursday and tomorrow is Saturday. I'm going to see my aunty then. She helps me with my work, Mahdi."

**Observation:**

Yahya says "I've made a calendar, it's for my dad and I need to give it to his office so they know what number date it is."

A and J playing with conkers left in building tray. After playing with the conkers, tipping them into buckets and beginning to count them, A selected bucket scales which were made available and compared quantities in each of the buckets. He tried to explain that there were 'more conkers' in 'that bucket' because it went 'all the way down to the table.' He was able to identify which set of conkers were the heaviest.

Molly was working in the Chinese Restaurant role play area. Molly demonstrated her understanding and knowledge of money through her actions and use of appropriate language. She turned to the adult and said "Here's the bill. It's 50 pounds please." She had written the numeral 50 on a piece of paper. "Do you have enough money?" she asked The adult replied that she had a £50 note. "That's good" replied Molly "you won't need any change, that's exactly the right amount." She took the note and put it in the correct part of the till.



*"Look at that aeroplane  
- it looks tiny but  
it's really very big!  
That's because it is  
so far away."*





Desmond is working with Nadwah to weigh the animals using a balance beam/unifix. He counts carefully as N drops bricks into the pan up to 13.

There are too many bricks so Desmond suggests that they take two out. He selects two and removes them. He looks carefully at the balance beam to see if it is balanced. "It needs one more."

He is happy that it balances and counts the bricks to 12 accurately. He has a different animal and predicts that it will be heavier than N's.

He carefully drops bricks into the pan, watching closely until he is happy. He counts bricks to 14, but stops counting to concentrate on looking.

## L conversation

L is outside involved in child-initiated learning in the sand tray. Within the tray are collections of natural materials - leaves, pebbles, conkers, sand and a selection of containers.

The practitioner observed and noted . . . .

"you got to sort these out" (said L)

"put all the same, they're all lumpy" (L feels the bumps on the pebbles)

"this is the thickest one. Now I'm finding conkers - there's one, I missed it. I think I might see one again. It's a tiny conker"

(After collecting the conkers, L counted them carefully, 1, 2, 3, 4, 5, 6. L then found 2 pine cones and said,

"this is the tiny one, this is the big one, it's the prickliest one, this one is smooth".



Emma and Leo are playing  
in the rockpool.

They talk about how heavy  
the rocks are.

Emma adds more to her net.  
"Now it's extremely heavy"  
she says, then adds another,  
"it's even heavier now!"



When discussing  
dinosaurs James  
said "the one with  
the longest neck  
is the tallest."

James built some towers  
with the wooden blocks.  
"That's even bigger"  
he said, "it's enormous!"



Outdoor robot theme.

Self initiated activity in outdoor area exploring old computer parts. Selected measuring tape and said, “the keyboard is 23 centimeters.”

A Reception child using a tape measure to measure an old keyboard.



Hannah and Honey were playing in the shop. They used the language of capacity, full empty, half full, to talk about how full the bottles were. They were able to place the bottles in order starting with the fullest.



Ben had been throwing snowballs at the wall. He was excited as he managed to get them higher and higher up the side of the building. ‘Look that one’s gone really high, it’s nearly touched the top of the window. If I throw a bit harder then I can make it go even higher. It might be as tall as a giant’.



Name: O	Date:
<b>Observation &amp; context:</b> O company his foot to the footprint found on the bridge. "Mrs. Hutchell it can't be my foot. look it's so small". Olive then went on to measure his foot using multilink cubes and found it was 10 cubes long.  <b>Child / adult initiated</b>	



There was a giant footprint found in class after the children had heard & enacted the story of the 3 Billy Goats Gruff. The question was posed "Who's footprint is this?"

<b>Observation &amp; context:</b> These children were fascinated by the new wooden marble run. They spent a long period of time engaged in a complex problem solving activity as they tried to work out how to build a structure which would allow a marble to pass freely from one end to another. They all worked harmoniously throughout, allowing each other to improve their construction or otherwise as they explored different combinations. "Let put this long bit here, the marble goes faster then" <b>Child initiated</b>
--

O selected unifix cubes to measure his footprint. He carefully fitted the bricks inside the outline he had drawn & added 2 more bricks until the column was the right length. He accurately counted 10 bricks. "Mine is 10 long," he shouted excitedly!

Can you hang my bird feeder really high for the birds.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Observation & context:**

The boys were investigating sinking and floating in the water tray. Hanny had placed a bowl in the tray and commented that it floated and noted that it continued to float as he added water to it. "If I fill it up it will not float".

Then got a sponge and began squeezing water in. He wanted to add as much water as he could "Just enough but not enough to sink it".

"I think this will be just enough". Hanny had put a sponge in the water and was watching it carefully. "This is filling up with water but it's still floating".

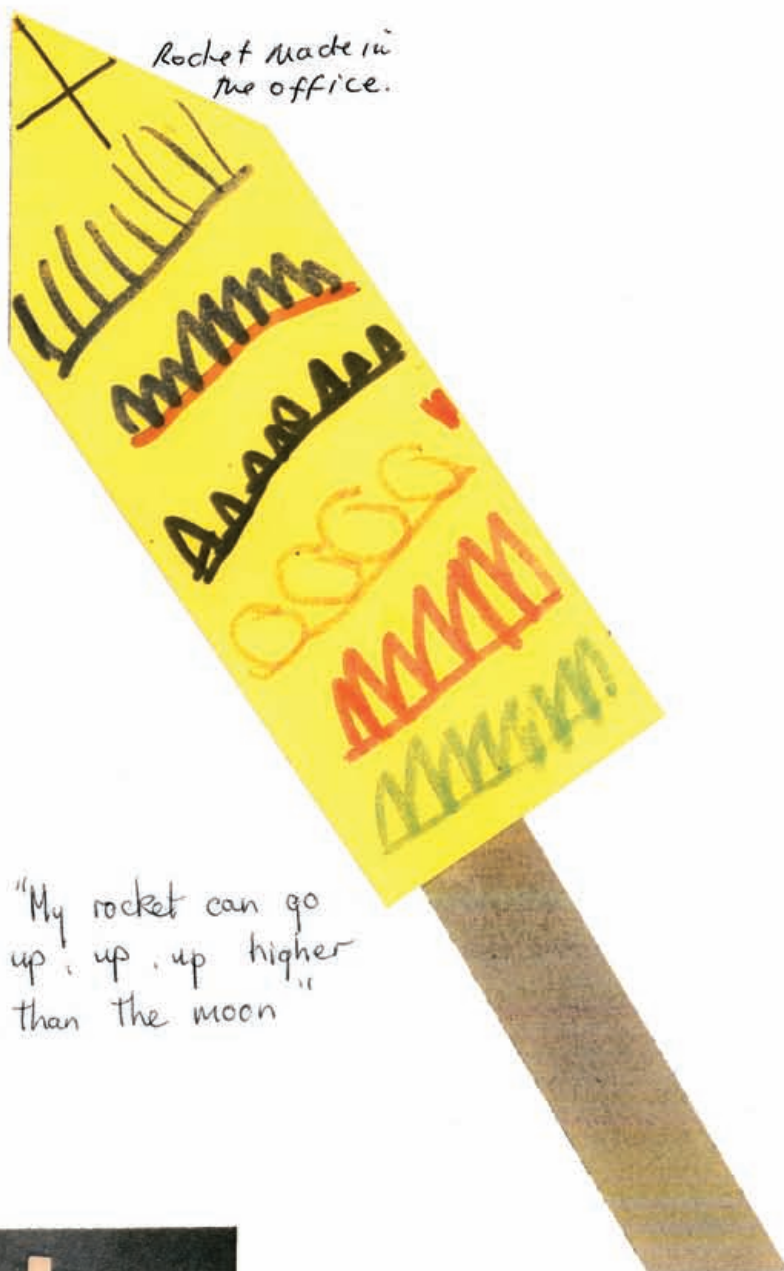
Child / adult initiated

**Observation & context:**

not sinking. It's floating."

They then worked together to put water in using the pipes. S "We're trying to make it sink now".

R "Oh the pipes not going down the right way - the water won't go this way" - as



Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Context :**

Construction

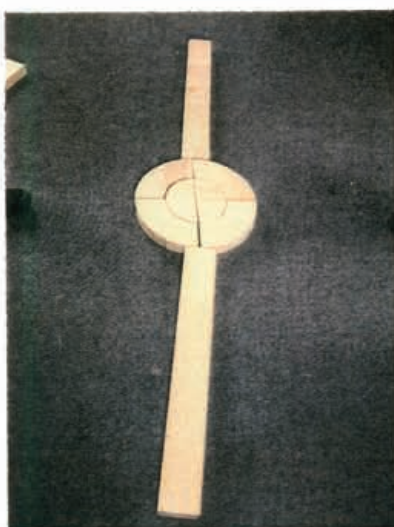
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PSRN

Adult-directed / child initiated

**Observation**

was building a very tall 'brick'. As he built it higher it started to wobble. 'on no! its falling'. He looked carefully and then said 'I can fix it'. He then spent a lot of time working out how he could build it higher without it falling.



O made this 'watch' with bricks. He carefully searched for the appropriate bricks from the shelves to complete the circles. Each brick he found was the 'right' one to fit in next. "It's a Ben 10 watch" he said. "It's a circle."



"My pattern is grey, white, black, grey, white, black."



Name: O

Context Outdoor Area

#### Observation

O was working with other children in a shop they had created outside. He was writing number sentence "....because you have to add up to know what it costs."

I helped my dad put together a flat-pack side board. We had to match numbers and letters to fix the pieces together and Dad let me have a turn at fixing them together with a big hammer.

O

Name: O

Context: Maths area

#### Observation:

O has been very interested in the scales and weighing different objects. Today he was at the table weighing numerous things, putting them in the scales, taking them out and watching the movement of the scales carefully. He put one animal on one side and picked up another. 'Can you tell me which is the heaviest?' I asked. 'This one is, it goes down.' he replied, and later, 'This one has got three big animal in so this is the heaviest.' He pointed to the side of the scales touching the table.

"Like we learned this morning but snakes; small, medium, large. Pointing at circles."





While my neighbours were on holiday, I looked after their 2 rabbits, Stanley and Gladys. I fed them dry food on a morning and vegetables on an evening.  
O

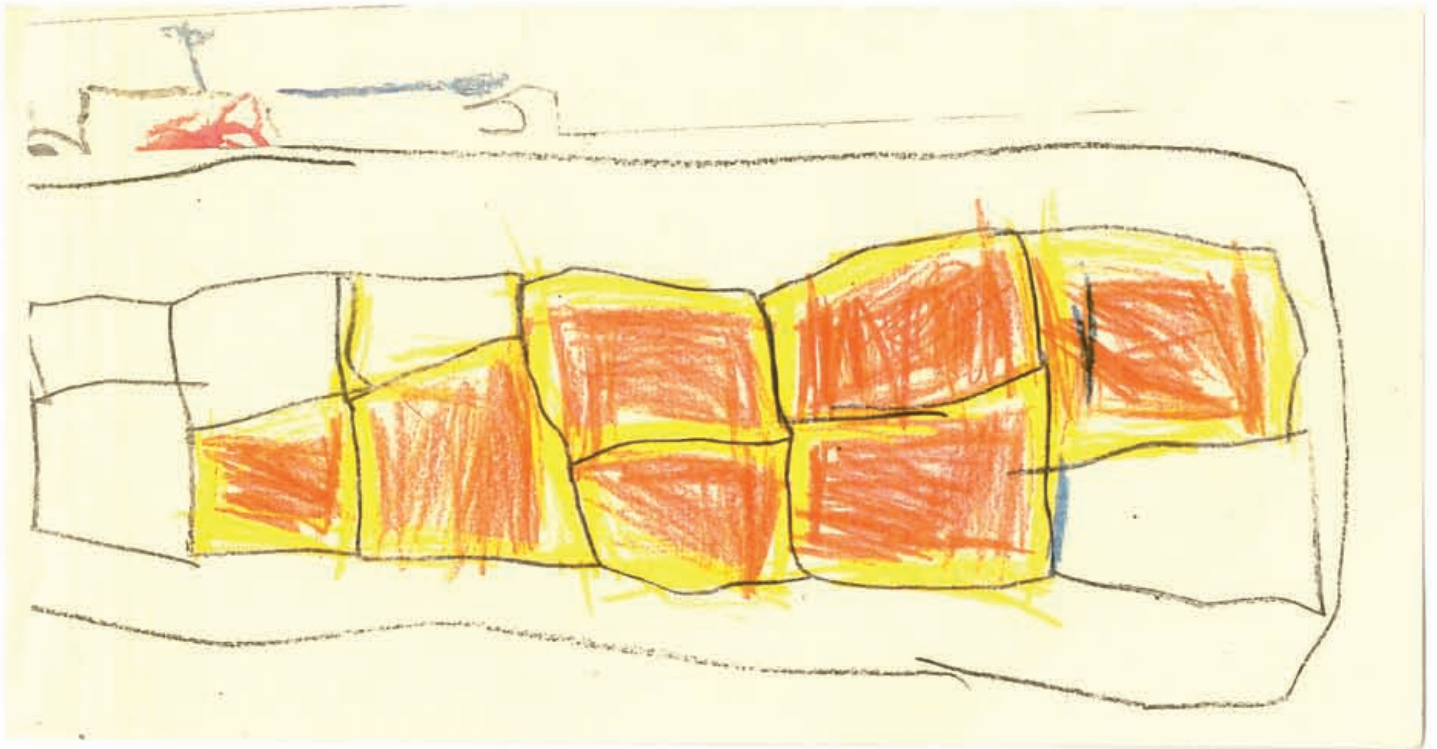


"Can I make one too?" O  
chose to make a necklace from multicoloured straw beads threaded onto thin wire. "I'm going to start with black..... and do a pattern, pink, black pink, black." After a while he said, "I'm changing now I'm going to make it multicoloured." "Look there's a bit from a pasta jar..... I've got loads on mine."



"I've made the moon. It shines in the sky at night."

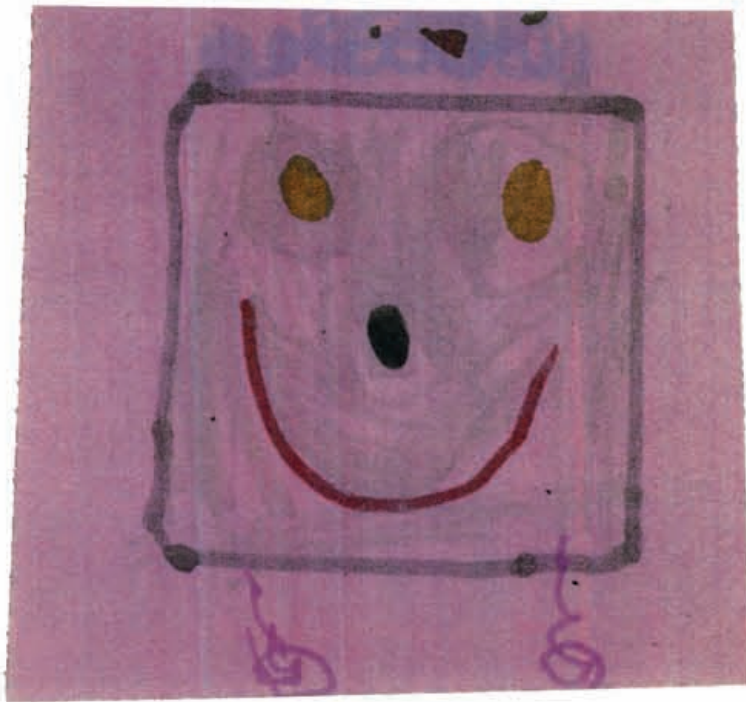




E is very interested in patterns of squares. Here she has drawn a picture of 'Little Lumpty's' Wall. Each square she has coloured has a yellow border & orange centre. Later in the month she used a similar design to make a pattern with white stones. Again the outer borders of each square are made up of small white stones, with one larger white stone in the centre of each square.



A repeating pattern



Name: E.

Context Writing area.

#### Observation

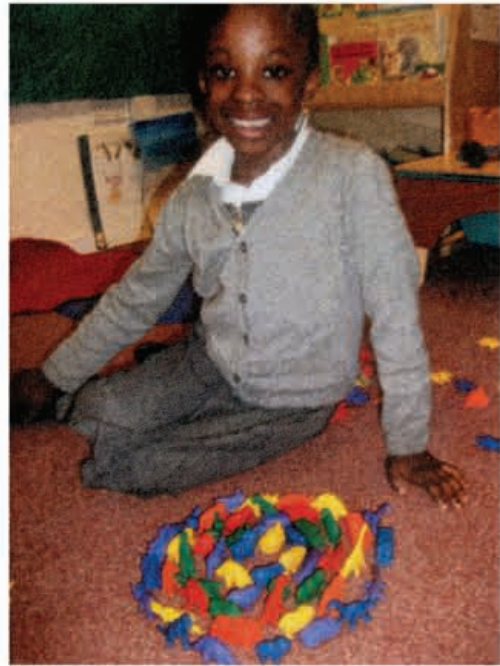
E chose to work in The writing area. She selected various squares & drew round them to make 'shape monsters'. She could describe some of the properties of the square. "It has 4 corners and 4 sides."



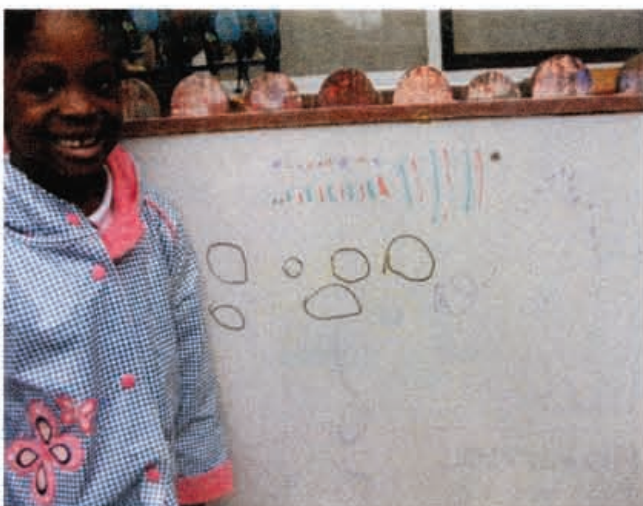
E regularly chooses to work in the construction area with The Community Playthings bricks. She often builds walls selecting different lengths of bricks but making the ends of the bricks line up together. She has a clear idea of which bricks to select to complete each layer. E will often arrange small world people along the top of the wall when it is completed & play for 10-15 mins alongside & with other children imaginary scenarios for these characters.



Hakima was busy playing with the sorting objects today. She began making a pattern of purple and blue objects in a circle. Hakima then did another pattern of orange and yellow objects inside the circle. She repeated this with three more circles of repeated colour patterns, carefully placing the objects in the right position.

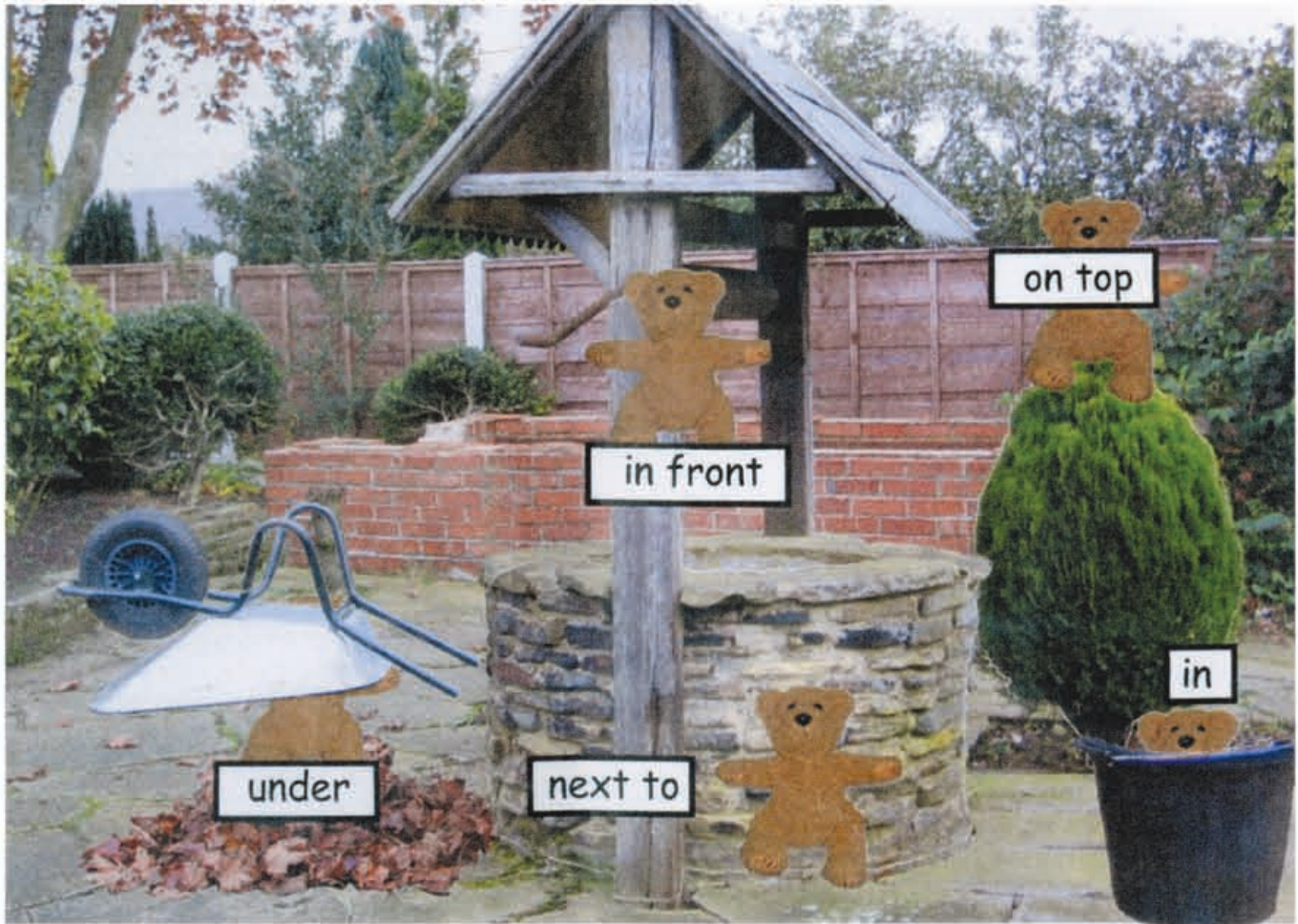


Hakima made these super repeating patterns on the whiteboard outside today. She chose the pens carefully to make sure her pattern stayed the same. Well done Hakima!



Hakima built a complex model with the wooden jewel blocks. She chose each block carefully, selecting the correct size blocks to fill in any gaps. She then chose an arch shaped block "I need this curved one for my bridge."





AI Hakima did some super position work today. She had to choose where to place the teddy bears in the garden and then tell me where she had put them using position words. Hakima then matched the label to where each teddy was by sounding out the words. Well done Hakima!

Hakima was painting and went to choose a new piece of paper. She paused and said "hmm. I think I'll do a square pattern" - she chose the square piece of paper & painted a series of squares inside each other.

Hakima followed some tricky instructions today using positional language. I asked Hakima to put the objects in different places. She correctly put Mr. Alien in the basket, the ball in between the chair and the basket, the ribbon on the chair and the blue fabric in front of the basket. She also knew what behind and under meant. Well done Hakima!



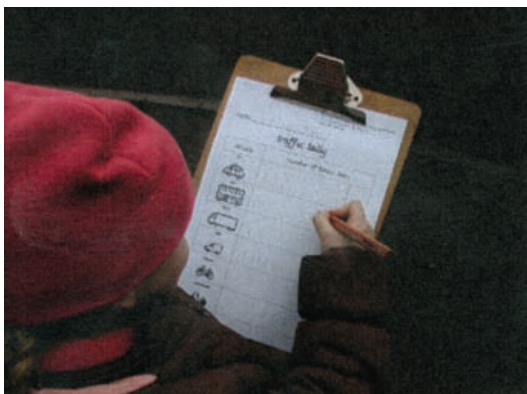


After collecting twigs, children use plasticine to make shapes. They discuss the properties of shapes with the practitioner.

“Look, I have made a triangle with three twigs. It’s got three corners.”



Practical maths – here C separates keys between two doors and proudly uses a whiteboard to record the number sequence.



Outdoors, the practitioner uses a practical context which engages the children’s interests to inspire them to count.

Here a group of children take part in a traffic survey, excitedly discussing and recording how many of each type of vehicle they had seen, comparing quantities.



Children engage in making ‘moveable arty pictures’, here G decides to use the different types of pasta to make a repeated pattern. She describes the pattern to her friend who then attempts to recreate it.



After an adult led activity outdoors, a group of children consolidate and extend their knowledge by exploring the capacity of a range of containers, talking about which will hold the most/least and comparing quantities.

J: “Mine is fuller than yours.”

B: “If I pour two pots in the jug it is full.”



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