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.

Explanatory notes

The child uses everyday language to share their thinking about size, weight, capacity, position, distance, time and money. The child demonstrates that they understand that one quantity is different to another even if they do not know the correct comparative term. The child is able to recognise and describe patterns and notices them in the environment. Using a range of media and resources the child makes patterns. The child notices and describes everyday objects and shapes using appropriate mathematical language.
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.
Cheri-May made some fantastic repeating patterns on the smartboard 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 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 sorted the shapes into two groups. “The hexagons can all go together.” She made another group with all different shapes in. “Why are these 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 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 cards and started to design her own pattern. Placing her beads carefully and purposefully...
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 3D 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, Mahdl.”

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.
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 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!”

James built some towers with the wooden blocks. “That’s even bigger” he said, “it’s enormous!”

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