

# Vignette 5 – Place value: read, write and order

## SUMMARY KEYWORDS

numbers, decimals, dice, digits, roll, visual representation, children, numeracy, arrow, place, language, assess, focus, rocket, smaller, nice, teachers, resources, patterns

## SPEAKERS

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Kia ora and welcome to vignette number five; Read, Write and Order. We're focusing here on level three and four, millions and decimals. But that's not to say that we won't sometimes fall back to smaller numbers so that students can make a connection with what they already know in our place value system to our larger numbers and to our decimals. This here is just a really nice relationship model. Because often number symbols are the focus of our instruction, instead of using the materials to see the patterns, we need to remember that mathematics is patterns. And so the visual representation develops children's understanding of our digit face value system. And language, again, is a key part of making these connections. And so the idea is that we would focus on the visual representation of our big numbers and our decimal numbers, remembering we can always fall back to smaller numbers. And I did find this, this here is actually in book five of the numeracy project right at the early beginning pages. Go back read that, there's some really good ideas in there.

For helping teachers who are finding it really, you know, frustrating sometimes, or having to go back and read things around that level four area, would you say then that getting them to represent decimals, obviously, for some kids for the first time, in modeling that, would actually be a really good place to go to.

That's right. So we just need to fall back to our smaller numbers using our place value equipment, we're at the blocks, and then we can relate that to our deci-pipes representations and our digits, Okay, so we like to use the place value house, because it's a really nice scaffold for children, to help them with reading big numbers. And we can see that the numbers are just broken up into groups of three, whether that's our one's house, or 1000s house, our millions house. And so putting digits in a place value house supports children in reading that. So just as we would read this large number of 83,510,585. So these are just some ideas that you could use and some resources to expose children to reading big numbers. And so an idea is you could use pads, digits, or arrow cards or dice. And so what I'm going to talk you through at the moment is just the dice. What you need to do is just decide, you know, how, what do I want to focus on? Am I focusing on three digit numbers, decimals to one, two or three places, so just decide how many dice you would like the children to roll and use a color to separate out your decimals and your whole numbers. We roll them, we make the biggest number. And we can record that on our scaffold of a place value house if we need to, or we can just record that on paper. So again, it's just deciding what the children need to support them to be successful in this

practice. So roll the biggest number, and then you're going to write it, you're going to read that number. And then with your partner, who has also created a number, you're going to order that number, and so it's just practising this. And so you can see the arrow cards has really helped children to order those numbers because they can see it in the expanded form.

And what's nice about these games that you're sharing with us, Robyn is fact that once established, these could actually provide some really useful formative assessment opportunities to allow teachers to assess the language, assess their concepts, assess their fluency.

That's right. Just by roaming around the classroom and seeing this in action, you're able to hear the language that they're using, and their understanding that they have in those two, three digit numbers. This is another really great activity, rapid routines, ordering decimals. You create this little rocket with 10 lines in it. And we use all zero points to do this one. You roll a dice, label one, two, and three to determine how many dice that you will roll on your turn. The first you might get to roll one dice, so you would roll that dice, and then you would arrange that digit on your arrow rocket. This time I'm actually rolling three dice, and my number was 0.045.

I think all these games as well if we go back to vignette number three, then that will give you an overview of some of those readily available resources that Robyn have I have gone through from NZ maths, I try to like bring them together so you have quick access to where these are. Thank you.