

Exemplars

Ngā tauaromahi

Quin and quarters

Child: Quin

Teacher: Carlotta

Quin was really interested in using the ruler and pens. She got a little frustrated with using the felt tip along the edge of the ruler and chose to paint on the paper I had just ruled into quarters. She followed the ruled lines with a crayon before painting each individual quarter. This resulted in a symmetrical look which she appeared to be really happy with. “I’ve got four rectangles – they’re quarters, aren’t they, Carlotta?”



What’s happening here?

This activity begins with the teacher noticing Quin’s interest in using a ruler and pens. The teacher has ruled some paper into quarters, perhaps to see what Quin will do with them. Quin’s response is to paint a symmetrical pattern.

What aspects of noticing, recognising, and responding to mathematics learning does this assessment exemplify?

The teacher has noticed an interest in rulers and pens, and her response stimulates a development of that interest into an exploration of aspects of geometry: quarters, rectangles, and symmetry. The teacher notes that Quin “appeared to be really happy with” her work and was her own judge of its merits. Quin’s question asks for confirmation: “[T]hey’re quarters, aren’t they?” There is no record here of what came before or what followed, but the documentation provides the opportunity for Quin to revisit the experience and to follow up on this exploration. The teacher analyses the learning with a mathematical lens, noting the “symmetrical look” to Quin’s work and providing what may be a new word to Quin, an addition to her mathematical vocabulary.

What does this assessment tell us about mathematics learning (using a *Te Whāriki* lens)?

For many children, learning begins by playing with tools with no apparent purpose in mind, and then a purpose or meaning begins to be explored. In this case, the teacher appears to have provided the stimulation with no specific outcome in mind. Quin initiates the direction that her learning takes. The Exploration/Mana Aotūroa strand of *Te Whāriki* includes outcomes to do with setting and solving problems, looking for patterns, and investigating spatial understandings. Quin explores all these processes in this exemplar.

How does this assessment exemplify developing competence with mathematics?

Both Carlotta (the teacher) and Quin (the child) appear to be exploring aspects of rectangles together: in this case, they are “four quarters”. Quin and her teacher may later explore different ways to represent quarters, or they may explore the horizontal and vertical symmetry of the pattern Quin has created. Quin has very carefully represented the symmetrical pattern: not just in shape but also in colours.