Mathematical moments: 5 to 7 year olds

Number composition:

Four fives is the same as 20.

Tait had been exploring addition bonds to 10 in school. One day, he spontaneously burst out:

> *Four fives is the same as 20!*

And he then went on to explain his reasoning. Gemma later invited him to repeat this asking,

> *How do you know that?*

Tait explained (with lots of *ums*, while he thought how to say it):

> *Because, um, I know 20 is two 10s. So let's break that up. And then because, um, yes, I know one 10 is two fives, so then if the other 10 breaks up too, that makes two fives, so two and two is four, so then if, um.. it combines to four fives. Then that, um, well, transform into 20, then if you combine those four fives back, Haaaah!*

On another day, Gemma asked Tait to choose some resources to demonstrate his thinking about this, asking:

> *Can you show me how you know that?*

(Watch his demonstration. Tait chose Numicon, which he knew well.)
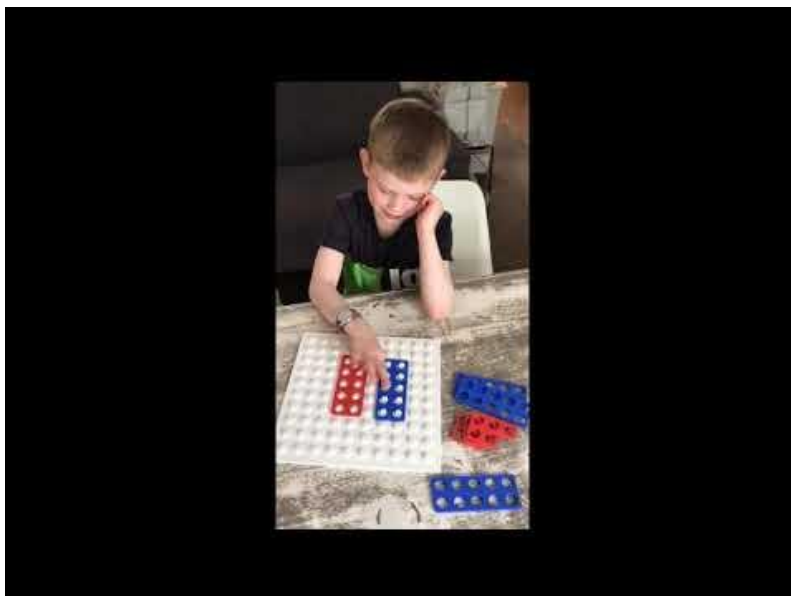
Tait clearly knew that Gemma was interested in how he thought mathematically and was confident in expressing himself. His explanation gives clues about the ways other young children may think about number relations. For instance, the language of *transforming* and the phrase, *If they both split up at the same time* suggests that he may be visualising the shapes moving simultaneously. This example not only shows the value of giving children the time and space to talk about their thinking, but also the way manipulatives can support children in explaining their reasoning.