Numeracy Learning Progressions: STEP 5 capabilities

What STEP 5 *knowledge* might I *have*

What sort of things might I know?

- *I know 68.199 mm is shorter than 68.2 mm*
- *I know 2.63 has 26 tenths and 3 hundredths*
- *Multiplying 0.45 m by 1000 will leads me to 450 mm or dividing 450 mm by 1000 will return me to 0.45 m*
- *I know a 20% discount is the same as 1/5 off the original price.*
- *I know that m by m gives square metres which can be written as m^2*

I know decimal place value and how to order decimal numbers

I know how to multiply and divide decimals by 10s, 100s, etc

I know how to convert between decimals, fractions and percentages

Which STEP 5 *strategies* might I *use?*

What sort of things might I do?

- *I can work out how much is left in a 1.125 L bottle if I've poured out 30 ml.*
- *I know that 61 pallets with 38 cartons on each is about 2400 cartons and I use my calculator if I want an accurate answer*
- *I know that adding 1.92 m and 2.463 m will be a little less than 4.5 m and I use my calculator if I want an accurate answer.*
- *To add 15% GST on a $30 t-shirt I find 10% is $3.00 and 5% is half of that so GST will be $4.50.*

I can add and subtract decimal numbers.

I can decide if an answer is reasonable using estimation.

I work out 25% of 80 by finding one quarter of 80.

What STEP 5 understandings of *Space, Shape and measurement* might I have?

What sort of things might I know or do?

- *I know that 1 cm on a 1:200 scale plan is 200cm or 2m on land*
- *To travel 220 km averaging 80 km/hr will take about 3 hours.*
- *The stud height in my house is 2.4 m. The length of the wall is 6 m, so the area of the wall needing papering is 6 x 2.4 which is 14.4 square metres.*
- *I can change 2.38 m to 2380 mm or 238 cm.*

I can interpret scale drawings.

I can calculate area and perimeter from measurements.

I can estimate travel time

I can convert units *within the same* measurement system

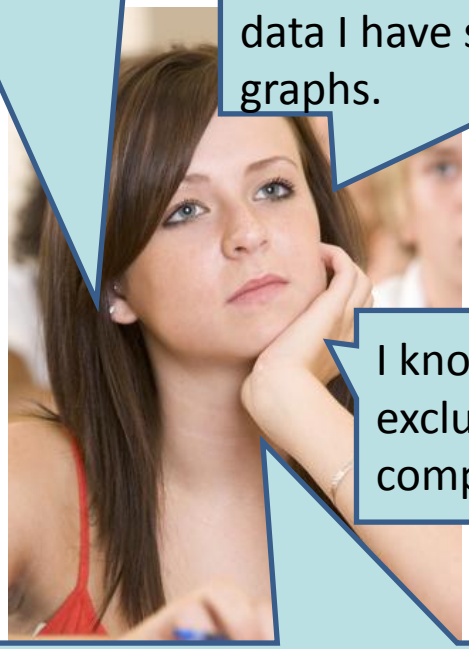
What STEP 5 understandings of *Reasoning Statistically* might I have?

What sort of things might I be doing?

- *Before renewing my car insurance I found tables of details (premiums, U25 excess , etc) from five companies and made my decision from these.*
- *By finding some statistics of the NZ and Australian teams' shooting percentages over the last two seasons of the ANZ Netball Competition I could see who the top 3 shooters were from each country*
- *The line graph on the back of our water bill suggests that if we get an extra flatmate in, we'll have to ask them for an extra $5 per week to cover it.*
- *I know that if I pick out one playing card from a deck of 52, it will be either red or black, but not both.*
- *If we keep buying tickets in our local PTA raffle, sooner or later one of us (family or friends) will likely win a prize.*

I can compare two or more samples by finding their medians and ranges; then use these to compare and analyse, say performance or cost

I can make predictions from data I have seen in tables and graphs.



I know about mutually exclusive & complementary events

I know that if I do a chance event for long enough, the closer my prediction will end up being.

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