Number and Place Value Prior Assessment Question 4:

Q4: I can order whole amounts accurately

NPV2: round any whole number to a required degree of accuracy

Teacher Input Ideas: (for children who need support with ordering due to errors of place value)

Look back at Question 4 with the children and discuss what errors the children made. Establish with the children, were the errors due to understanding from place value or an error in answering the question and understanding the problem. Discuss children's mistakes and where they can improve.

Place these 5 numbers on the board, 463537, 4635271, 8272621, 3645527, 8278372. Encourage the children to talk through the amounts with a partner and to think about how they would work out the largest amount? How would you order them? Inform the children that you don't want the answers you want a strategy for ordering. Where would you start? How do you answer questions like this? Encourage children to share how they go about ordering sets of numbers. Some children may benefit from having a blank place value chart in front of them to help. Some children may need to write the amounts down and jot above each digit its place value. Some children may count the number of digits to rule out possibilities initially.

For those that made errors in question 4, due to understanding of place value, encourage them to use blank place value table or jottings above. This may need modelling for example:

Millions	Hundreds of thousands	Tens of thousands	Thousands	Hundreds	Tens	Ones
4	6	3	5	2	7	1

Or

m ht tt th h t o

4 6 3 5 2 7 1

For 463537, the value of the 4 is 4 hundred thousand. Compare to 4635271, value of the 4 is 4 million, therefore I can see that 4635271 is larger as this is a 7-digit number and 4 million is larger than 4 hundred thousand.

Repeat with 8272621 and 8278372, talking through the value of each digit, working along until you get to the thousands column.

Practice Activities

Purple Practice- Practical: Most suited for children who made errors in **Question 4 of the Place Value Prior Assessment task** due to lack of understanding of place value.

Practical: children to be given access to atlases (many have population sizes in the front) or computers to help to research population sizes of different countries or cities/counties in the UK.

As a group give children places to find the population sizes (Yellow activity Q1 or Yellow activity Q5 could be used as a reference to help you to suggest countries to research). Children to select which ones they are going to find the population sizes (note: some websites and atlases round the population sizes so try to provide one that doesn't round so that children can order amounts that have only different tens, hundred digits too).

Once around ten have been collected as a group, encourage the children to pick 5 to order from largest to smallest amounts. You could select the countries/counties/cities for children to order if you want to make it harder or simpler. For example: to make it simpler for some individuals, give them only up to 1 million to order. To make it more challenging for children, give them amounts where they may be similar but the difference in the hundreds, tens or units determines which is the larger number. For example: 5,463, 728 is larger than 5,463, 352.

Children could also order all ten. Encourage the children to discuss their understanding: What helped you to compare? Which ones where trickier? Which were easier? Why? Approximately how much larger is 290483 than 178394? What is the value of the millions digit? What is the value of the hundreds digit? Which one is larger?

Green Practice- practical and template provided: Most suited for children who made errors in **Question 4 due to how they presented their results** and demonstrate difficulty in understanding problems.

As above however the children to record each place with the population into the table provided. Point out the children's errors in the prior learning task (such as writing the amounts rather than the places)

Children to then order the countries at the bottom of the task, ensuring they write the name of the country/city/county, not the amounts. Encourage the children to think about how they could make notes on the table or jottings to help them to order the amounts.

Yellow Practice – Practical: most suited for children **who would benefit from finding their own research, deciding how to present it and order information.**

Discuss with the children the types of information that they could collect that will have large amounts (example: house prices in the area, population sizes or distance in metres/KM from where they live to other places they like). Children to research these independently and suggest how they are going to record and present this information. How are they going to order the amounts? What have they found out from ordering these amounts?

Mastery: As with the other tasks, cross curricular opportunity with geography,

The children are presented with a problem where they should order the amounts in the grid and then number the regions from 1-9, to show the largest and smallest number of dogs in different regions of England. The children are presented with a different layout and some may find this tricky to understand. The children are also challenged to discuss what they have found out from this information and apply geography skills such as understanding why London may not have as many dogs as other places, even though it is the most populated city in England.

Answers

Mastery:

1) South East England
2) North West England
3) East Midlands
4) West Midlands
5) Yorkshire and the Humber
6) East England
7) South West England
8) North East England
9) London

BRICKWORK Mathematics

Green Practice

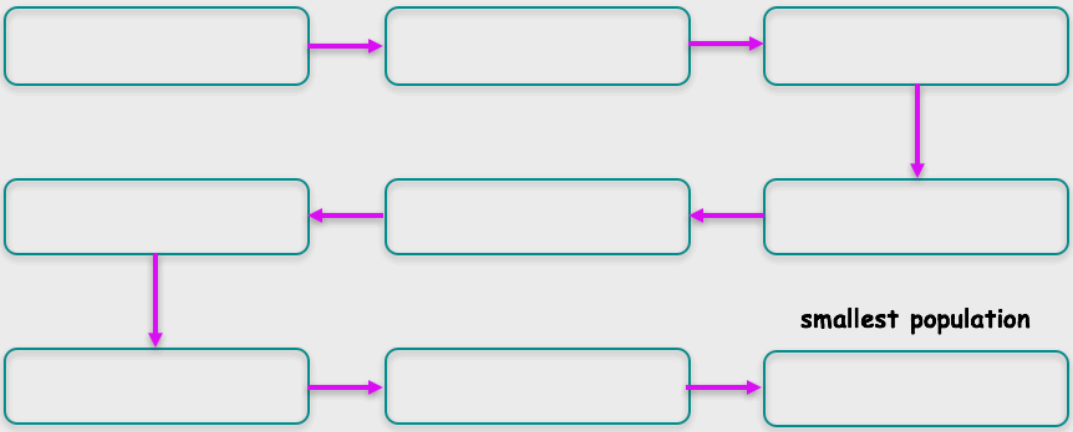
Lo: I can solve problems applying my skills of ordering amounts

Problem:

Find out the different population sizes of countries around the world. Using your research, order the countries from the largest population to the smallest population.

Place/ Country	Population Size

largest population



smallest population

BRICKWORK Mathematics

Mastery

Solving problems

The number of dogs were counted in each region of England and the amounts are record in the grid below. Place the numbers 1 to 9 in the correct places on the map. 1 being the region with the most number of dogs and 9 being the region with the least number of dogs.

North East England 507827	East Midlands 1007827	London 209182
North West England 1107261	West Midlands 911273	South East England 1253987
Yorkshire and the Humber 764509	East England 744758	South West England 724601

Are you surprised by any of the results? London has a population of nearly 9 million. Does the number of dogs in this region surprise you?