

Number and Place Value Prior Assessment Question 1:

Q1 I can read 5, 6 and 7 digit amounts and write these in words.

I can read amounts when 0 is used as a place holder and write these in words.

NPV 1: read, write, order and compare numbers up to 10 000 000 and determine the value.

Teacher Input Ideas:

Here is a variety of ideas:

- Children could be given place value cards to explore different amounts up to 7 digits. They could then record these on place value tables/ charts and look at the size of a number and the position of the digits to help them to record the amount in words.
- Ask the children to bring in objects or create a whole school large store of counting objects to create larger numbers (for example, paper cups, buttons, paper clips, milk lids). As a class or group, organise the objects into groups of ten; these could be placed into small clear bags or elastic bands to clearly show the group. Then find another way to group ten of these groups. Discuss how 100 has been made and look alongside a place value chart. Then find another way to group ten of these such as a small box; repeat each time ten has been created. Once you get to larger numbers you may not have enough of the actual objects but boxes, mats or skipping ropes can be used to represent 1000, 10,000 etc to show how our number system is created by repeatedly grouping ten.
- Model looking at a place value chart and placing the digits into the columns starting with the units/ones. Discuss why starting at the ones is a good idea when placing digits into the columns. Explore different 5, 6 and 7 digit numbers, including using 0 as a place holder. Then discuss that in real life situations we don't always have mathematical resources to support us- what could you do? Write a 7-digit number on the board. Model writing O, T, H, TH etc above the digits to help the children say in words the number.
- Practise counting from different larger numbers in different amounts: such as 34,599 adding 1, 10 or 100 each time and observe what happens to the size of the number and the position of the digits.

Practice Activities

Purple Practice: Most suited for children that made errors in **Question 1** and demonstrate little understanding of place value and would benefit by only being presented with up to 5 digit numbers, including amounts with zeroes.

The children are given 5 amounts to record into words with some of the numbers using zero as a place holder. Children could use a blank place value chart to place the digits into the columns to help them.

Green Practice: Most suited for children that **made errors in Question 1** and will benefit from reading up to 7 digit amounts, including amounts where 0 is used as a place holder.

The children are given amounts recorded in a table and are encouraged to write the amounts in words for an information booklet. If children are having difficulty, prompt the children to start with the ones when trying to work out the number and write above the digits.

Yellow Practice Most suited for children who demonstrate some **understanding in Question 1** and will benefit from writing 6, 7 and 8 digit amounts in words.

This activity can be easily adapted. Such as: children could choose their own countries and challenge themselves to amounts, or you could write a list of countries on the board for the children to write about by selecting numbers that are most suited to the children's gaps.

Mastery This activity requires the children to explore many different options through trial and error and working systematically. Some children may rush through this and only find 3 or 4 options. Encourage the children to try out different positions of the dominoes and orientations. Through question prompts, encourage children to prove they have all the ways. Model a starting point, such as starting with one domino in different positions and then different orientations. Move it along until there are no more possibilities to make a new amount and then repeat with another domino. Some children would benefit from having actual dominoes. Children who find it harder to record could take images of this with a camera or create a simple replica of format for children to draw/write amounts on.

Children could then be pushed further by writing the largest and smallest amounts in words. Additionally, the children could be posed the question "If I were to cut each domino in half, would I have more possibilities?". They need to explore and prove their answer through reasoning. They may want to use models or images to help explain.

Answers:

Purple:

Six thousand, one hundred and ninety-nine.

Nine thousand, nine hundred and fifty-six.

Thirty-one thousand, three hundred and forty-five.

Five thousand, five hundred and six.

Eight thousand, two hundred and forty.

Green:

Nine hundred and fifty-one thousand, eight hundred and ninety.

Forty thousand and one.

Eighty-one thousand and one hundred and twenty-eight.

One hundred and thirty thousand, two hundred and twenty.

One million, two hundred and five thousand, four hundred and fourteen.

Yellow:

Country	Population
Hong Kong	Seven million, three hundred and forty-six thousand and seven hundred
Denmark	Five million, six hundred and seven thousand and three hundred.
Croatia	Four million, one hundred and ninety thousand, six hundred and sixty-nine.
Mauritius	One million, two hundred and sixty-three thousand, seven hundred and forty-seven.
Fiji	Eight hundred and sixty-nine thousand, four hundred and fifty-eight.
Belize	Three hundred and eighty thousand and ten.
Singapore	Five million, six hundred and seven thousand and three hundred.
Slovenia	Two million and sixty-four thousand, two hundred and forty-one
Spain	Forty-six million, eight hundred and twelve thousand.
Cyprus	Eight hundred and forty-eight thousand and three hundred.
Australia	Twenty-four million, four hundred and thirty-three thousand and three hundred.
Costa Rica	Four million, eight hundred and ninety thousand, three hundred and seventy-nine.
Greece	Ten million, seven hundred and eighty-three thousand, seven hundred and forty-eight.
United Kingdom	Sixty-five million, four hundred and thirty five thousand, five hundred and ninety three.

Mastery:

This is an open-ended activity therefore the children will have different answers. The children could mark these in pairs to ensure they have written the amounts in words accurately.

You will want to ensure that the children have found a variety of combinations and have explored this in depth, demonstrating skills such as working systematically and orderly to help to ensure that they have all ways and showing examples of reasoning when explaining how the dominoes are attached in pairs therefore having some impact on the possibilities available.

A zoo wants to produce an information booklet about the number of species in the world to inform people about the range of living things on earth. Below, a table of information has been collected. Use this to fill in the rest of the information booklet by practising writing the amounts in words.

Vertebrates	
Amphibians	6199
Birds	9956
Fish	31345
Mammals	5506
Reptiles	8240
Invertebrates	
Insects	951890
Molluscs	81128
Crustaceans	40001
Corals	2175
Others	130220
Subtotal	1205414

On Earth live a variety of living species. Here are the amounts of the different types of species living on earth.

There are _____ amphibians.

There are _____ birds.

The number of different types of fish living on earth is _____

The number of different types of mammals living on earth is _____

There are _____ different types of reptiles living on Earth.

Green Practice

Lo: I can write up to 7 digit amounts in words, including amounts where 0 is used as a place holder.

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On Earth live a variety of species. Here are the amounts of the different types of invertebrates living on earth.

There are _____ insects.

There are _____ crustaceans.

The number of different types of molluscs living on earth is _____

The number of other types of invertebrates living on earth is _____

Altogether the total number of invertebrates living on earth is _____

Yellow Practice

Lo: I can write up to 7 digit amounts in words, including amounts where 0 is used as a place holder.

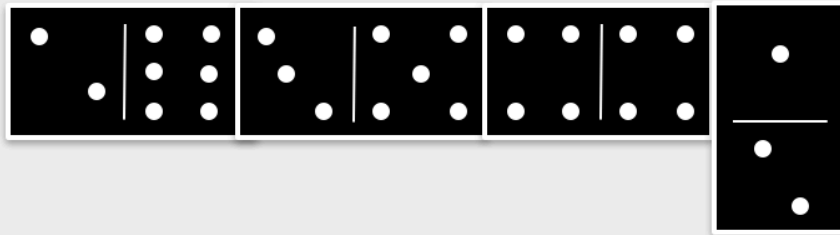
An information booklet is being written about population sizes of different countries around the world. Use the table to write sentences about the population sizes of different countries and practice writing the amounts in words.

Country	Population
Hong Kong	7,346,700
Denmark	5,607,300
Croatia	4,190,669
Mauritius	1,263,747
Fiji	869,458
Belize	380,010
Singapore	5,607,300
Slovenia	2,064,241
Spain	46,812,000
Cyprus	848,300
Australia	24,433,300
Costa Rica	4,890,379
Greece	10,783,748
United Kingdom	65,435,593

The number of people living on Earth is increasing each day. Currently, China is the most populated country. There are many other countries in the world with different populations. The population of _____ is _____

Using 4 dominoes, how many different 7 digit numbers can you make? Write each combination down in words.

M HTH TTH TH H T O



For example, this combination is: two million, six hundred and thirty-five thousand, four hundred and forty-one.

How many different 7 digit numbers can you make with the same four dominoes?

Thinking points

- How are you going to organise your work?
 - What strategies can you use?
- How can the dominoes be used in different positions and orientations?