Place Value Question 3 and 4

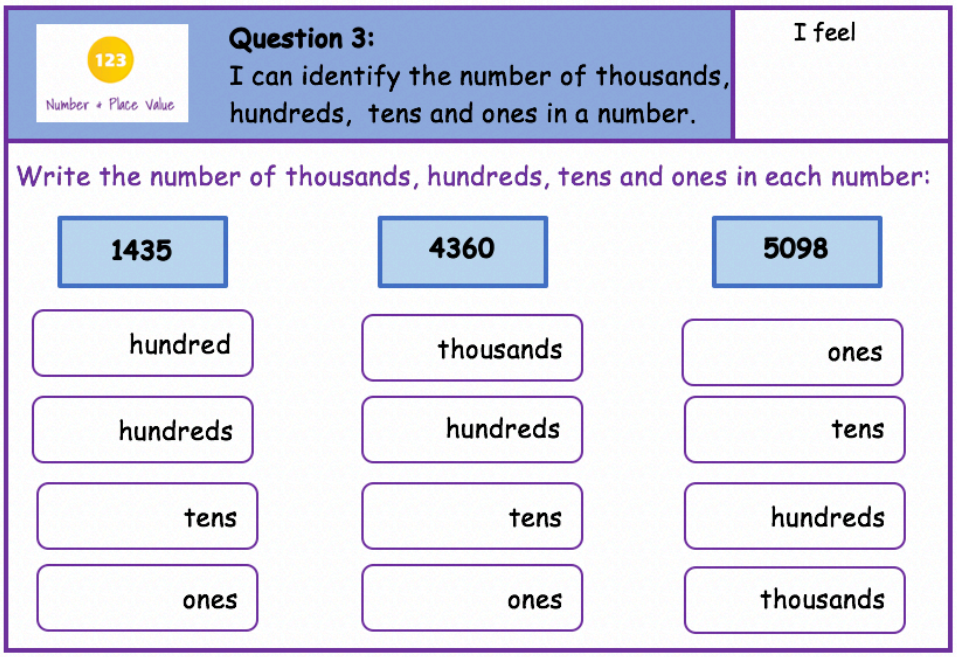
Objective: I can identify the amount of thousands, hundreds , tens and ones in a number.

I can say the value of a digit in a number.

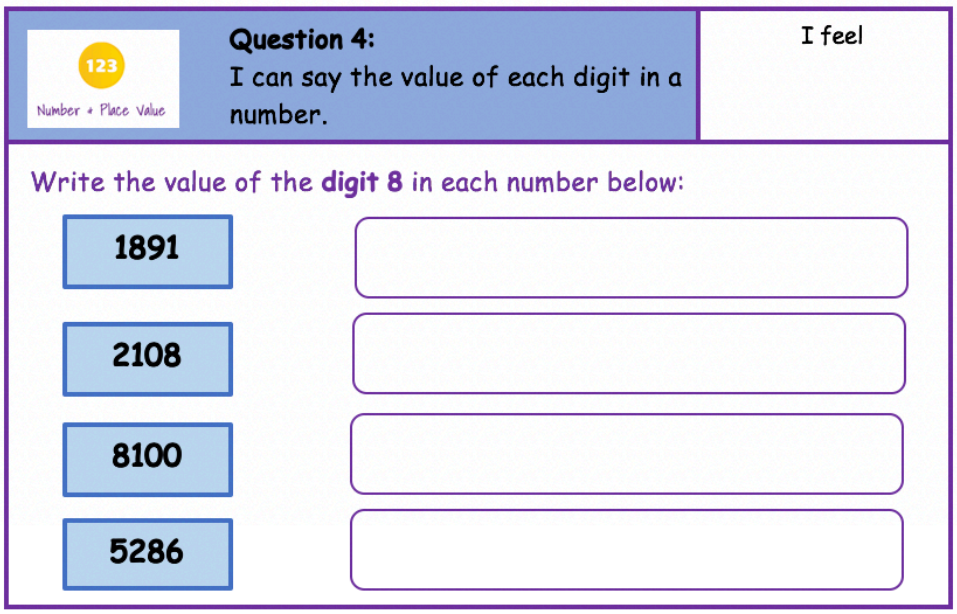
NPV4 : recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)

Assessment Question 3 and 4

Prior Learning:



Prior Learning:



Input ideas:

- Recap how things can be organised in to tens, hundreds and thousands. Compare the difference of organising little cubes into groups and some of the other objects they grouped in the previous lesson. Compare the use of Base Ten with other objects. You may want to use the purple resource second sheet to discuss how the straws have been grouped and how they differ from Base Ten. For example: one straw could easily be mistaken for a ten stick in Base Ten.
- How can we use these groups to record/write numbers? Let's look at a 4 digit number: 2345. How many thousands does it have? How do you know? How many tens does it have? How do you know?. Model writing this in place value chart to help and the children could be provided with their own place value charts to record these down. Some children may benefit from using the images on the second purple resource sheet to place on the chart and then replace these with a digit. Recap with the children how a thousand is formed. So if 10 blocks of 100 make one thousand then 20 blocks of 100 make 2000. Discuss the place of each digit and how these show the number of tens, hundred, thousands.
- When the children are ready move on to the value of each digit, show how this differs from the number of tens, hundred, thousands. For example: 2345 has 2 lots of thousand but the value of the digit is 2000(two thousand). I have 3 lots of hundred so the value is 300 (three hundred). I have 4 tens, but the value of the 4 tens is 40 (we say 40) . The value of the 5 is 5. So when we are putting the digits together we would say the number as two thousand ,three hundred and forty five. Encourage the children to say the value of different 4 digit numbers displayed around the class. Ask the children questions like:

What is the value of the 4 digit in this number? What is value of the digit in the hundreds place?

Practice Activities

Purple Practice: most suited for children who show misconceptions in Question 3 in the prior learning assessment tasks and need to secure understanding of how items are grouped into tens, hundreds and thousands.

Using the objects created in the previous lesson, images provided in the purple task or Base Ten (if they understand how the groups are formed), encourage the children to show how many of each group they have in the digits provided below:

1365, 1267, 2273 , 1890, 4512

Provide the children with 4 digit amounts, encourage the children to place the correct image into the correct column on the place value chart. For example the 1 shows how many thousands I have as this is a 4 digit number so I have now made another group/column. I have 3 as the next digit so I have 3 hundred to place here. Children can place the objects or images to show what they have. Once the children have done so, photographs could be taken for recording or the children could record the number and then the number of thousands, hundreds, tens and ones for that number. Once the children show understanding give the children 3 digit amounts to use on the 4 column chart to check the children place the first digit in the hundreds column.

<u>Green Practice:</u> most suited for children who have demonstrated some difficulty in Question 3.

The children are provided with a sheet for the children to record the number of thousand, hundreds, tens and ones in each 4 digit number. The child is to identify how many of each group is in each number. If the children need further support, they may want to use the place value chart or images provided in the purple task.

<u>Yellow Practice</u> most suited for children who show difficulty in Question 4 as they do not understand the vocabulary of the value of a digit. Rather than saying the value of the digit, they may have recorded an answer as 4 tens rather than 40.

For the yellow activity, the children are provided with blocks with amounts on. Next to these each digit has separated for the children state the value of the digit. Encourage the children to write beneath each digit the value. You may want the children to explore writing the value in digits first such as 2000, 700, 80 and 9. Once the children show confidence, you may want to ask the children to write the value in words. By writing these in words, this may help children on the next lesson when asked to write in words 4 digit numbers . For example the children will be able to put the words together to say the total amount:

2 7 8 9

Two thousand, seven hundred and eighty nine .

<u>Mastery:</u> problem solving

The children are presented with a problem, where they are to create their own four digit amounts. The children must select odd digits to make a 4 digit number. All of the digits must total to 20 when they are added together.

For example:

9 3 5 3 or 7 3 5 5 or 1 9 7 3

Encourage the children to find lots of different possible answers and combinations. Some children may use trial and improvement by working out that some odd digits will not work together. Some children may also draw upon their knowledge of number bonds to combine the digits.

Children can also be challenged by attempting to find the largest number possible. Children may want to work systematically here to check they have the largest total possible or they may use trial and improvement.

Answers

Green:

1) 2 thousands , 9 hundreds, 6 tens, 1 one
2) 3 thousands, 1 hundred, 1 ten and 2 ones
3) 4 thousands, 3 hundreds, 2 tens and 1 one
4) 8 thousands, 9 hundreds, 1 ten, and 0 ones
5) 7thousands , 8 hundreds, 0 tens, 1 one
6) 2 thousands, 5 hundreds, 5 tens and 9 ones
7) 2 thousands, 0 hundreds, 0 tens and 1 one
8) 0 thousands, 5 hundreds, 4 tens and 3 ones
9) 6 thousands, 0 hundreds, 9 tens and 0 ones

Yellow:

a)	2000 Two thousand	700 seven hundred	80 eighty	9 nine
b)	1000 One thousand	300 three hundred	90 ninety	5 five
c)	7000 Seven thousand	0	10 ten	2 two
d)	5000 Five thousand	600 six hundred	40 forty	0 zero
e)	3000 Three thousand	100 one hundred	0	4 four

Mastery :

Share answers for the first part of the question as a group or class.

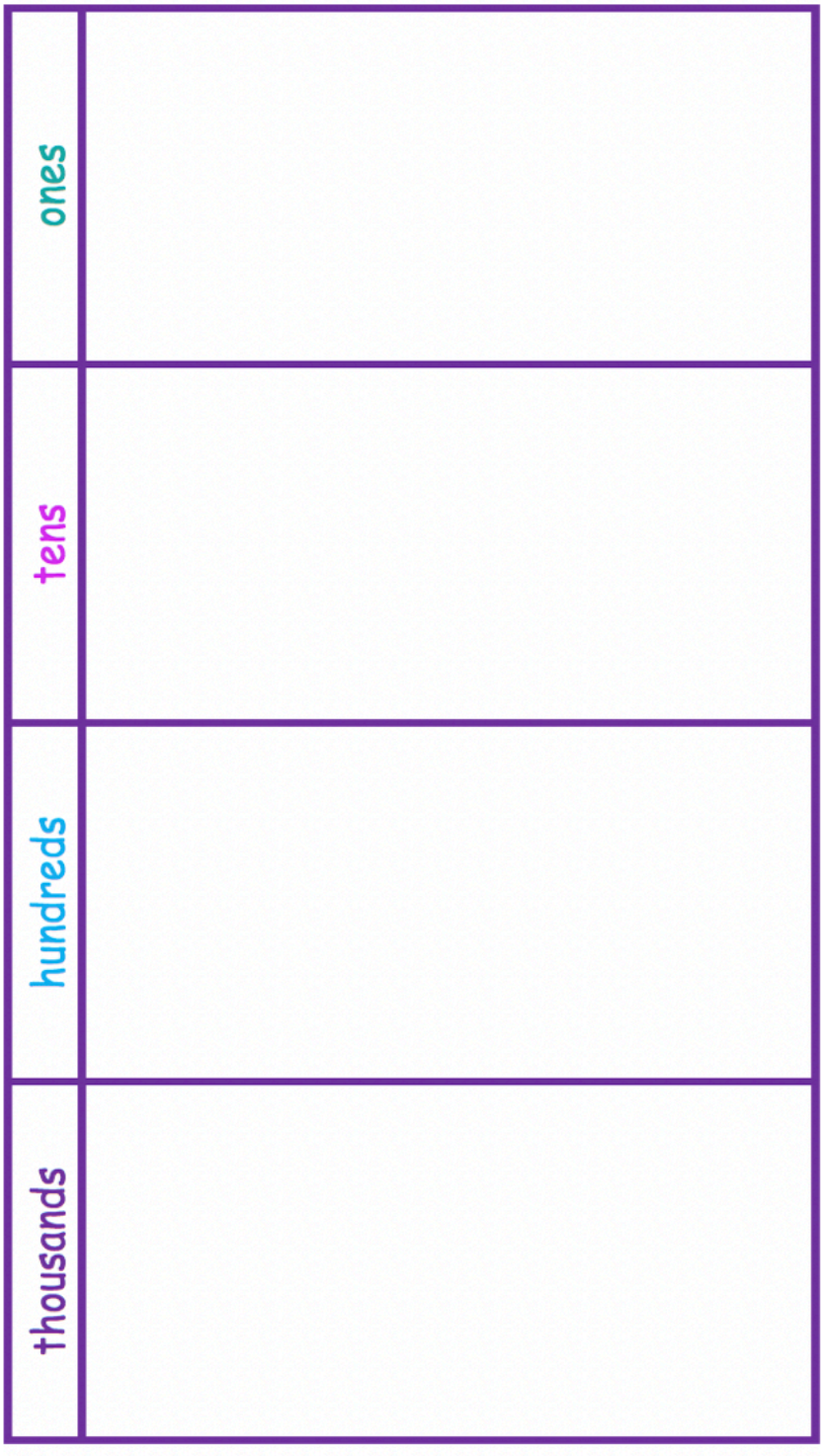
The largest answer possible is :

9911

BRICKWORK Mathematics

Purple Practice

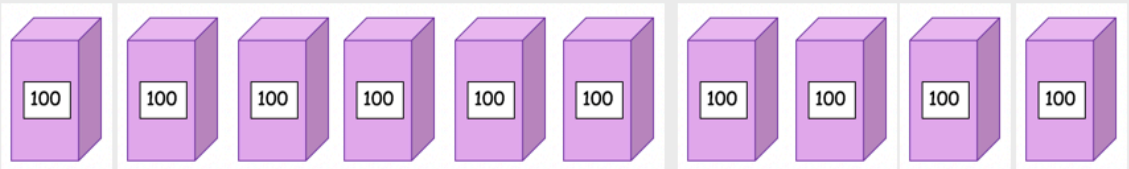
Resource sheet

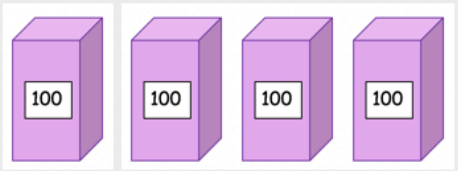


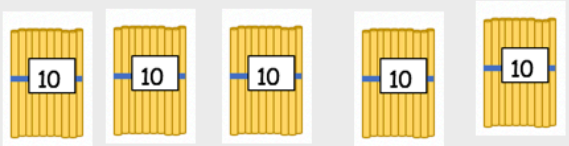
BRICKWORK Mathematics

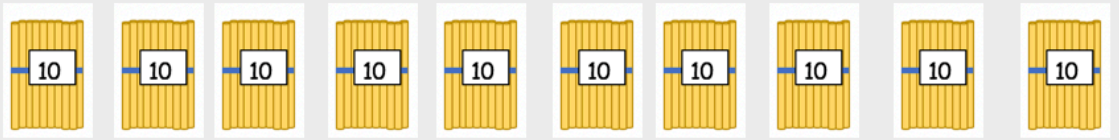
Purple Practice

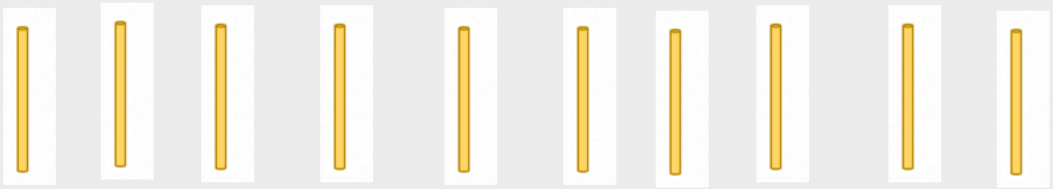
Resource sheet

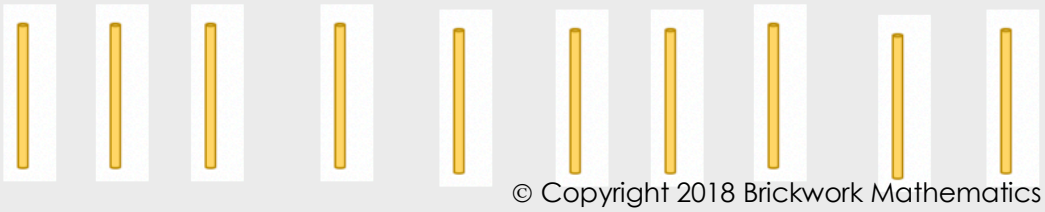












BRICKWORK Mathematics

Green Activity

LO: I can say how many thousands hundreds, tens and ones there are in a number.

Write how many thousands, hundreds, tens and ones there are in each number below.

1. **2961**
   thousands
   hundreds
   tens
   ones

2. **3112**
   thousands
   hundreds
   tens
   ones

3. **4321**
   thousands
   hundreds
   tens
   ones

4. **8910**
   thousands
   hundreds
   tens
   ones

5. **7801**
   thousands
   hundreds
   tens
   ones

6. **2559**
   thousands
   hundreds
   tens
   ones

7. **2001**
   thousands
   hundreds
   tens
   ones

8. **543**
   thousands
   hundreds
   tens
   ones

9. **6090**
   thousands
   hundreds
   tens
   ones

BRICKWORK Mathematics

Yellow Activity

LO: I can say the value of a digit in a 4 digit number.

1) Write the value of each digit in the numbers below.

a) 2789

2	7	8	9

b) 1395

1	3	9	5

c) 7012

7	0	1	2

d) 5640

5	6	4	0

e) 3104

3	1	0	4

Mastery

Problem solve

Using only odd digits, create a 4 digit number. When the digits are added together the total must be 20.

Challenge:

What is the largest number you can make with the four digits using the same rules as above?

Tip: think about the position of the digits and the value of each digit.