# YR2 PLACE VALUE KNOWLEDGE ORGANISER

### **Key Concepts**

- Recognising the place value of each digit in a two digit number
- Read and write numbers up to 100 in numerals and in words
- Compare and order numbers from 0 up to 100
- Partitioning tens and ones
- Understanding place value charts
- Counting in 2s, 3s, 5s and 10s

#### **Key Vocabulary**

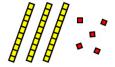
- represents
- greater than/less than
- more than
- fewer
- most
- least
- equal to
- tens and ones
- place value

### Numbers to 100

A two-digit number is made up of tens and ones. Base 10 can be used to represent numbers.

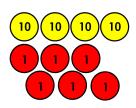


represents a one



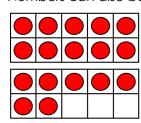
This represents the number 35. It is made up of 3 tens (30) and 5 ones.

Numbers can also be represented with place value counters.



These counters represent the number 46. It is made up of 4 tens (40) and 6 ones.

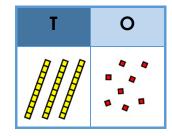
Numbers can also be shown in a ten frame.



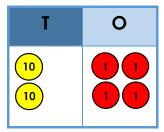
This shows a complete ten and 7 ones. This means that it shows the number 17.

#### **Place Value Charts**

Place value helps us know the value of a digit, depending on its place in the number.



This place value chart shows a number using base 10. There are 4 tens (40) and 8 ones so it represents the number 48.



This place value chart shows a number using counters. There are 2 tens (20) and 4 ones. It represents the number 24.

T	0
2	5

In this place value chart, the 2 digit is in the tens place, so it really means 20. The 5 digit is in the ones place so it means 5.



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#### Counting in 2s, 5s and 10s.

2s - 2, 4, 6, 8, 10, 12, 14, 16, 18, 20



I have noticed that when I count in 2s, all the numbers are even.

5s - 5, 10, 15, 20, 25, 30, 35, 40, 45

I have noticed that when I count in 5s, all the numbers I say end with either a 5 or a 0.



10s - 10, 20, 30, 40, 50, 60, 70, 80



I have noticed that when I count in 10s, all the numbers end in a zero.

## **Counting in 3s**

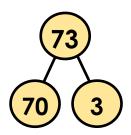
3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36

I have noticed that when I count in 3s, the numbers I say go odd, even, odd, even in a pattern.



#### **Partitioning Tens and Ones**

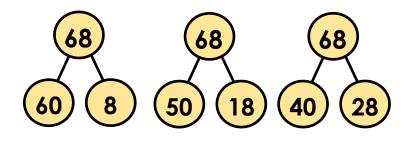
Partitioning is where we split a number up into smaller parts. For example:



73 can be partitioned into 70 and 3.



Numbers can be partitioned (broken apart) in more than one way.



Here are three different ways that the number 68 can be partitioned. The images show that...

60 + 8 = 68 and 50 + 18 = 68 and 40 + 28 = 68



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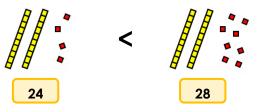
## **Ordering and Comparing Numbers**

When we put numbers in order, we need to compare the value of their digits.



First, look at the tens digits in each number. They are the same so we then look at the ones digits. 4 is the smaller ones digit so 24 is the smaller number.

We can compare numbers and objects using the < and > symbols. < = less than > = greater than.



# Read and Write Numbers in Numerals and Words

Numbers can be written in both numerals and words. When writing a number in words, it is useful to think about the place value of the digits.



This would be written as eighty-five.



When there is a zero, we don't need to write anything for that column. This is just eighty, not eighty-zero.