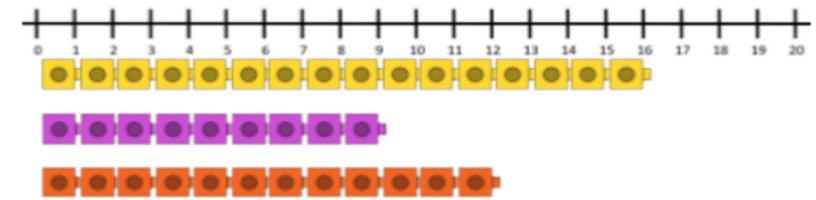
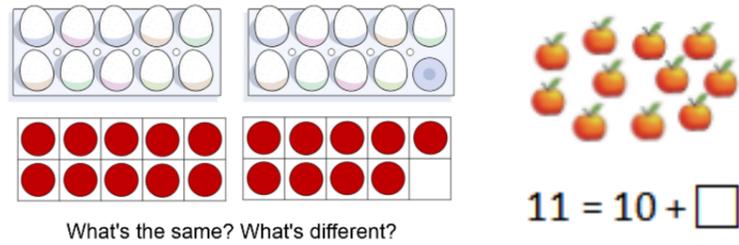


Year 1 Unit 4: Numbers to 20 (2 weeks)

This unit consists of 9 lessons and a consolidation lesson. Lessons with similar objectives have been grouped together. However, these lessons are designed to be taught in numerical order as they build on the concepts from the previous lesson.

E-Learning Module: The C-P-A Approach
Engage with our e-learning modules on the concrete-pictorial-abstract approach: [part one](#) and [part two](#) to learn how making connections between varied representations deepens understanding.

- Before starting:**
- This is the first time pupils use numbers beyond 10. How confident are pupils in recognising, counting, ordering, writing and comparing numbers to 10?
 - Can pupils use objects and number lines to count?
 - Do pupils understand the concepts and vocabulary for comparing such as equal to, more/less than, most/least?
 - Can pupils double and halve numbers within 10?



Counting and recognising numbers to 20
L1 Count from 1 to 19 and match different representations to them
L2 Identify numbers to 20 by first counting to 10 and then counting on

Pupils build on their understanding of numbers to 10. They count and name the tricky 'teen' numbers. They need encouragement to develop a systematic approach to counting, progressing from 'count all' to 'counting on from ten'. Pupils should be supported to see numbers between 10 and 20 as 'ten and a bit more' by making groups of ten with cubes, beads and ten frames as well as circling groups of ten in pictorial representations.

? How do the representations support pupils in seeing how the pattern of successive numbers is being built up?

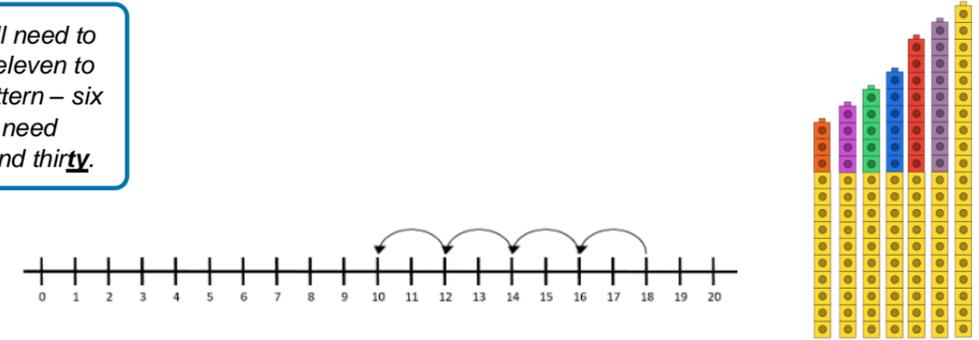
Comparing and ordering numbers to 20
L3 Position numbers to 20 on a number line
L5 Compare numbers within 20
L6 Compare and order three or more numbers within 20

Pupils use concrete, pictorial and abstract representations to compare numbers. Using cubes, number lines, ten frames and bead strings, they focus on the composition of 'teen' numbers, building a foundation for understanding place value. They develop the vocabulary for comparing, such as, before, after, more, less, equal, greater than, fewer, smaller, smallest, greatest.

? What opportunities will you provide to support pupils to make connections between the concrete and abstract numbers being compared?

Articles from NRICH
The articles below provide insight into place value and the importance of developing 'a strong sense of ten and 'unitising'.
[Place Value: The Ten-ness of Ten](#)
[Place Value as a Building Block](#)

Possible misconceptions: The 'teen' numbers are tricky. Pupils will need to be explicitly taught the numbers and matching number names from eleven to twenty. They need to see that they do not always follow a regular pattern – six becomes **six**teen but three becomes **thir**teen. The homophones need pointing out, so they hear and see the difference between **thir**teen and **thir**ty.



Doubling and halving numbers
L8 Double and halve numbers within 20

Pupils use concrete representations and one to one correspondence to double and halve sets of objects. They are taught together to link doubling and halving as inverse operations. A real-life context of Buy One Get One Free supports children to begin to get a sense of the concepts which will be revisited later in the year.

? Which language structures will consolidate the concept of doubling and halving?

Identifying number patterns
L7 Identify, complete and continue number patterns
L9 Understand odd and even numbers

Pupils deepen their understanding of patterns in our number system and explore similarities and differences. Pupils need modelling to generalise that in increasing patterns, the numbers become greater in value and in decreasing patterns, the numbers become smaller in value. Use of concrete representations emphasise these patterns, such as arrows on a number line and towers of cubes.

? Which concrete resources will have the greatest impact on creating the building blocks of seeing increasing and decreasing patterns?
? What opportunities will pupils have to talk about patterns and share their reasoning?

Identifying one more and one less and using the appropriate language to compare
L4 Say one more or one less than a number within 20

Pupils use cubes, number lines and bead strings to develop fluency and use counting on to 20 and back and their knowledge of before and after. Pupils apply their learning around 'ten and a bit more' from Lesson 1 and 2 when reasoning why numbers are one more or one less than others. Pupils use the previously learnt approach of 'counting on from ten' when comparing numbers. Pupils need encouragement to see the patterns that 'one more is added each time'.

? What type of indoor and outdoor activities and transitions will encourage pupils to consolidate counting on and back from any number?