

Resources

Mathematical concepts can sometimes be quite abstract. To support children's conceptual understanding, different resources are used in maths lessons across the school. The resources below are the main ones used by each year group. This ensures consistency across year groups and progression in the use of more abstract resources (e.g. place value counters where the same sized counter represents different values).

Numicon is mainly used by reception and years 1 and 2. Each Numicon represents a different number (1 to 10). Children quickly recognise the shapes and colours of different number representations. They might notice that odd numbers have an 'extra bit that sticks out' and the even numbers don't have this, and that a 4 Numicon and a 6 Numicon fit perfectly together to make a 10 Numicon ($4 + 6 = 10$). Children use their understanding of Numicon when they move onto using **Ten frames** to carry out simple calculations.



Dienes are mainly used by years 3 and 4. Each diene block represents ones, tens, hundreds or thousands and is a different size; they help children understand the base ten counting system and bring to life the relationship between ones, tens, hundreds and thousands. They can be used to reinforce children's understanding of place value and help them when using all four operations (+, -, X and ÷).



Place value counters are mainly used by years 4, 5 and 6. These are similar to dienes in that they represent ones, tens, hundreds or thousands, however each counter is the same size and has its value written on it instead. These are usually used on place value mats when comparing numbers or carrying out one of the four operations. As children start to explore and use larger numbers (beyond 1000), they move onto using plain counters.

