# **Progression**

The basic principles

To learn mathematics effectively, some things have to be learned before others, e.g. place value needs to be understood before working with addition and subtraction, addition needs to be learnt before looking at multiplication (as a model of repeated addition). You will see this emphasis on number skills first, carefully ordered, throughout our primary curriculum. For some other topics, the order isn't as crucial, e.g. Shapes and Statistics need to come after number, but don't depend on each other. We try to mix these so pupils have as wide a variety of mathematical experiences as possible in each term and year.
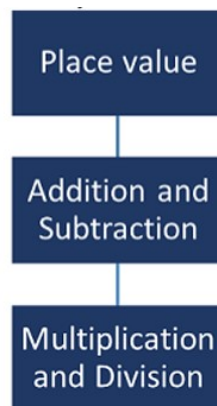
The fundamental idea behind our curriculum design is to support pupils to be able to perform simpler tasks so they can then move on to perform more complex tasks. For example, we cannot expect pupils to add two numbers together before they understand what each individual number represents. This thinking gives rise to a typical sequence of 'blocks' of mathematics that you will see in most of our year groups. Within each of these blocks we then have 'small steps' which are again sequenced in order of difficulty and dependency.

Here are the first seven steps (of 18) in our Year 3 Addition and Subtraction block:

Each step builds carefully from the previous step, building on pupils' prior knowledge to develop new skills, with nothing left out. Pupils are ready for this having covered addition with 2-digit numbers in Year 2 and Place Value up to 1,000 in the first block of Year 3.

Our curriculum is designed to use skills that have already been learnt in different contexts (sometimes called 'interleaving') whenever we can. This helps pupils to remember and to make connections between different parts of the curriculum. Taking the Year 3 example, after the Addition and Subtraction block, pupils will revisit and practice these skills again in these blocks later in the year:

• Multiplication and Division

• Money

 • Length and Perimeter

• Mass and Capacity …and then they are built on and extended in Year 4 and beyond.

What about the order of fluency, reasoning and problem solving?

These key components of learning mathematics are included in WR small steps. We believe these should be integrated into classroom practice as much as possible in the order that is appropriate for the step, e.g. the process of division may be introduced by a problem about sharing or grouping for which we need to become fluent at the procedure.