

## **What is Mastery?**

Mastery means having a secure understanding of mathematical concepts and processes, combined with a genuine procedural fluency. A child who has mastered a particular skill is able to apply their understanding and solve different types of problem, including where the skill is either embedded in a different context, or where a choice of method has to be made. For example, a child who has mastered adding two 2-digit numbers should be able to identify where this is required, even when it is not presented in a straightforward way (e.g.  $\square - 23 = 39$ ) and also choose an efficient strategy for doing it (e.g.  $40 + 22$ ).

Some children will be able to achieve mastery with greater depth. This means that they are able to apply their understanding of a concept in a wider variety of contexts, some of which are more difficult. They can manipulate the facts they know and the skills they possess in order to solve more complex problems. More developed forms of mathematical reasoning are central to this process, and enable the recognition of a link between operations and processes. For example, a child who has mastered the addition of 2-digit numbers in greater depth will be able to explain why it is possible to add two numbers both with units digits greater than 5 and get answers with units digits less than 5 (e.g.  $16 + 7 = 23$ ). They may also understand why adding a number to its matching reverse (46 and 64) will always give a multiple of eleven.

### **Common features of mastery include:**

- An expectation that all children can succeed in maths, often achieved by keeping the class together
- Giving children a secure and sustainable understanding of mathematical concepts by developing consistent models and images throughout
- Ensuring children are fluent in mathematical procedures and number facts by rehearsing these in systematic ways
- Children who master a concept easily are expected to deepen their understanding, for example by applying it to solve problems embedded in mathematical investigations or more complex contexts
- Children who do not master an objective with the rest of the class should be supported to enable them to gain more experience and achieve mastery, for example through same-day intervention, plus longer-term help if necessary.