

## **Descriptions of learning**

**This column shows the preceding descriptions of learning, the ones that lead to the current description of learning.**

**This column shows the current description of learning. This depends on the preceding descriptions of learning and leads to the following ones.**

**This column shows the following descriptions of learning, the ones that lead on from the current description of learning.**

### **Progression step 2: Number**

- I can use my understanding of multiplication to recall some multiplication facts and tables starting with tables 2, 3, 4, 5 and 10 and I can use the term 'multiples'.
- I have explored and can use my understanding of multiplicative relationships to multiply and divide whole numbers, using a range of representations, including sharing, grouping and arrays.

### **Progression step 3: Number**

- I have experienced and explored simple multiplicative relationships that allow me to discuss the properties of number, including factors, multiples, prime and square numbers.

### **Progression step 4: Number**

- I can use standard index form to represent large and small numbers, performing calculations in context. I can use appropriate rounding methods, including significant figures, to estimate values.
- I have derived and can apply the rules of indices, using integer exponents.

## Granular detail

These columns give details which lead from the preceding descriptions of learning to the current description of learning.  
The learner journey will include the experiences in these granular detail sections, broadly with a flow from left to right but recognising that alternative routes will be appropriate for some learners and some settings.  
There is no such thing as a 'standard' learning journey.

### Granular detail 1: Factors and multiples

- Identify and describe multiples of given numbers using multiplication tables.
- Understand and use factors and factor pairs in practical contexts (such as arrangements, tiling).
- Begin to notice and describe patterns across multiplication tables.
- Use multiplication and division to reason about number structure, for example even or odd, divisible by 5.

### Granular detail 2: Squares and primes

- Identify common multiples in simple problems.
- Recognise square numbers (1, 4, 9, 16, ... ) and use models to understand them visually.
- Describe and justify patterns in multiplication and division, for example why all even numbers are multiples of 2.
- Begin to explore prime numbers up to 20, recognising their unique factor properties.
- Use understanding of structure to make generalisations about numbers, for example multiples of 3 always have digits that add to a multiple of 3.

### Granular detail 3: Primes, cubes and reasoning

- Identify common factors in simple problems.
- Explore prime numbers up to 100 and investigate their role in building other numbers.
- Explain how multiplication or division underpin number properties, for example understanding divisibility tests.
- Explore cube numbers in the context of volume.
- Use knowledge of number properties to solve and explain reasoning problems that involve applying more than one property at a time.