



## Primary Stage 1 Mathematics for Year 1

### Number

#### Numbers and the number system

- Recite numbers in order (forwards from 1 to 100, backwards from 20 to 0).
- Read and write numerals from 0 to 20.
- Count objects up to 20, recognizing conservation of number.
- Count on in tens from zero or a single-digit number to 100 or just over.
- Count on in twos, beginning to recognize odd/even numbers to 20 as 'every other number'.
- Begin partitioning two-digit numbers into tens and ones and reverse.
- Within the range 0 to 30, say the number that is 1 or 10 more or less than any given number.
- Use more or less to compare two numbers, and give a number which lies between them.
- Order numbers to at least 20 positioning on a number track; use ordinal numbers.
- Use the = sign to represent equality.
- Give a sensible estimate of some objects that can be checked by counting, e.g. to 30.
- Find halves of small numbers and shapes by folding, and recognize which shapes are halved.

#### Calculation

##### *Mental strategies*

- Know all number pairs to 10 and record the related addition/subtraction facts.
- Begin to know number pairs to 6, 7, 8, 9 and 10.
- Add more than two small numbers, spotting pairs to 10, e.g.  $4 + 3 + 6 = 10 + 3$ .
- Begin using pairs to 10 to bridge 10 when adding/subtracting, e.g.  $8 + 3$ , add 2, then 1.
- Know doubles to at least double 5.
- Find near doubles using doubles already known, e.g.  $5 + 6$ .
- Begin to recognize multiples of 2 and 10.

##### *Addition and subtraction*

- Understand addition as counting on and combining two sets; record related addition sentences.
- Understand subtraction as counting back and 'take away'; record related subtraction sentences. Understand difference as 'how many more to make?'
- Add/subtract a single-digit number by counting on/back.
- Find two more or less than a number to 20, recording the jumps on a number line.
- Relate counting on and back in tens to finding 10 more/less than a number ( $< 100$ ).
- Begin to use the +, - and = signs to record calculations in number sentences.
- Understand that changing the order of addition does not change the total.
- Add a pair of numbers by putting the larger number first and counting on.
- Recognize the use of a sign such as  $\square$  to represent an unknown, e.g.  $6 + \square = 10$ .
- Begin to add single- and two-digit numbers.

##### *Multiplication and division*

- Double any single-digit number.
- Find halves of even numbers of objects up to 10.
- Try to share numbers to 10 to find which are even and which are odd.
- Share objects into two equal groups in a context.



## Geometry

### Shapes and geometric reasoning

- Name and sort common 2D shapes (e.g. circles, squares, rectangles and triangles) using features such as number of sides, curved or straight. Use them to make patterns and models.
- Name and sort common 3D shapes (e.g. cube, cuboid, cylinder, cone and sphere) using features such as number of faces, flat or curved faces. Use them to make patterns and models.
- Recognize basic line symmetry.

### Position and movement

- Use everyday language of direction and distance to describe movement of objects.

## Measure

### Money

- Recognize all Euro coins and work out how to pay an exact sum using smaller coins.

### Length, mass and capacity

- Compare lengths and weights by direct comparison, then by using uniform non-standard units.
- Estimate and compare capacities by direct comparison, then by using uniform non-standard units.
- Use comparative language, e.g. longer, shorter, heavier, lighter.

### Time

- Begin to understand and use some units of time, e.g. minutes, hours, days, weeks, months and years.
- Read the time to the hour (o'clock) and know key times of day to the nearest hour.
- Order the days of the week and other familiar events.

## Handling data

### Organizing, categorizing and representing data

- Answer a question by sorting and organizing data or objects in a variety of ways, e.g. using block graphs and pictograms with practical resources; discussing the results in lists and tables with practical resources; discussing the results in Venn or Carroll diagrams giving different criteria for grouping the same objects.

## Problem solving

### Using techniques and skills in solving mathematical problems

- Choose appropriate strategies to carry out calculations, explaining the working out.
- Explore number problems and puzzles.
- Find many combinations, e.g. combinations of three pieces of different coloured clothing.
- Decide to add or subtract to solve a simple word problem (oral), and represent it with objects.
- Check the answer to an addition by adding the numbers in a different order.
- Check the answer to a subtraction by adding the answer to the smaller number in the question.
- Describe and continue patterns such as count on and back in tens, e.g. 90, 80, 70.
- Identify simple relationships between numbers and shapes, e.g. this number is ten bigger than that number.
- Make a sensible estimate of a calculation, and consider whether an answer is reasonable.