## Examples of what children should be able to do, in relation to each (boxed) Programme of Study statement

**Convert between different units of measure [for example, kilometre to metre; hour to minute]**

* Learn the relationships between familiar units of measurement. They learn that kilo means one thousand to help them remember that there are 1000 grams in 1 kilogram and 1000 metres in 1 kilometre. They respond to questions such as: A bag of flour weighs 2 kg. How many grams is this? They suggest suitable units to measure length, weight and capacity; for example, they suggest a metric unit to measure the length of their book, the weight of a baby, the capacity of a mug. They suggest things that you would measure in kilometres, metres, litres, kilograms, etc.
* Record lengths using decimal notation, for example recording 5 m 62 cm as 5.62 m, or 1 m 60 cm as 1.6 m. They identify the whole-number, tenths and hundredths parts of numbers presented in decimal notation and relate the whole number, tenths and hundredths parts to metres and centimetres in length.

**measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres**

* Measure the edges of a rectangle and then combine these measurements. They realise that by doing this they are calculating its perimeter. Given the perimeter of a rectangle they investigate what the lengths of its sides could be. They work out the perimeter of irregular shapes drawn on a centimetre square grid, e.g. using the ITP ‘Area’.



**Find the area of rectilinear shapes by counting squares**

* For example, they draw irregular shapes on centimetre square grids, and compare their areas and perimeters.

**estimate, compare and calculate different measures, including money in pounds and pence**

Draw on their calculation strategies to solve one- and two-step word problems, including those involving money and measures. They use rounding to estimate the solution, choose an appropriate method of calculation (mental, mental with jottings, written method) and then check to see whether their answer seems sensible. They throw a beanbag three times and find the difference between their longest and shortest throws. After measuring their height, they work out how much taller they would have to grow to be the same height as their teacher. They solve problems such as:

* Dad bought three tins of paint at £5.68 each. How much change does he get from £20?
* A family sets off to drive 524 miles. After 267 miles, how much further do they still have to go?
* Tins of dog food cost 42p. They are put into packs of 10. How much does one pack of dog food cost? 10 packs?
* A can of soup holds 400 ml. How much do 5 cans hold? Each serving is 200 ml. How many cans would I need for servings for 15 people?
* I spent £4.63, £3.72 and 86p. How much did I spend altogether?
* A string is 6.5 metres long. I cut off 70 cm pieces to tie up some balloons. How many pieces can I cut from the string?
* A jug holds 2 litres. A glass holds 250 ml. How many glasses will the jug fill?
* Dean saves the same amount of money each month. He saves £149.40 in a year. How much money does he save each month?

**read, write and convert time between analogue and digital 12- and 24-hour clocks**

**solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.**

* Solve problems involving units of time, explaining and recording how the problem was solved. For example: Raiza got into the pool at 2:26 pm. She swam until 3 o’clock. How long did she swim? They count on to find the difference between two given times, using a number line or time line where appropriate and use the 24-hour clock to measure time.

## Non-Statutory Guidance

Pupils build on their understanding of place value and decimal notation to record metric measures, including money.

They use multiplication to convert from larger to smaller units.

Perimeter can be expressed algebraically as 2(a + b) where a and b are the dimensions in the same unit.

They relate area to arrays and multiplication.