



Progression in Maths

Following is an overview of expectations for each curriculum level. It gives an outline of what children should achieve at each level and indicates the steps required to progress.

Level 1

- Count forwards and backwards to and from 20 and read and write numbers to 20.
- Use numbers to label and find objects.
- Put numbers in order.
- Say the number that is one more or one less than a number to 20.
- Use the words first, second and third.
- Count how many objects are in a group and know that the number of objects in a group does not change if they are moved around but does change if any are added or taken away.
- Count in twos up to 20 and use this to count objects in pairs.
- Match and count objects to find which group contains more or fewer objects.
- Count sounds, actions and objects that cannot be touched.
- Quickly find pairs of numbers that add up to 10.
- Answer addition and subtraction calculations using known facts.
- Use the words/numbers in a problem to help decide how to solve it.
- Solve problems by ordering numbers or calculating.
- Understand and use words that link to adding and subtracting.
- Answer addition calculations by putting groups of objects together or by counting on.
- Answer subtraction calculations by taking away objects or by counting back.
- Know that numbers can be added in any order but that a particular order is needed for subtraction.
- Write number sentences using symbols.
- Sort shapes and explain how they have been sorted.
- Name and describe common shapes.
- Follow instructions to position myself or objects and can describe the position.
- Follow and give instructions to move along a route.
- Compare how long or tall objects are and describe what has been found out.
- Compare how heavy two objects are and describe what has been found out.
- Compare how much two containers hold and describe what has been found out.
- Use objects and equipment to make measurements and compare objects.

Level 2

- Count forwards and backwards in equal steps and describe any patterns in the sequence.
- Explain how to put a set of two-digit numbers in order.
- Partition numbers to 100.
- Round any two-digit number to the nearest 10 and explain.
- Find half or quarter of a shape or a group of objects.
- Use mathematical words to explain how to solve addition and subtraction problems.
- Explain how and know whether to use addition or subtraction to solve a problem and record.
- Solve subtraction problems by taking away or by counting on.
- Say the subtraction that matches an addition sentence and the other way round.
- Add or subtract a one-digit number to or from a two-digit number.
- Add or subtract a multiple of 10 to or from a two-digit number.
- Subtract by counting back or by finding the difference.
- Choose how to solve a problem and explain method.
- Record my working for an addition or subtraction problem.
- Recognise and name common 2-D and 3-D shapes.

- Describe shapes, using mathematical words.
- Sort shapes and explain how they were sorted.
- Draw shapes of different sizes and decide if they are the same or not
- Visualise shapes.
- Choose a suitable unit of measure.
- Choose a sensible measuring instrument and read a scale to take a measurement.
- Make a sensible estimate for a measurement.
- Solve problems by measuring.
- Use clocks and time lines to tell the time and order events.
- Sort objects and explain how they were sorted.
- Organise information into lists and tables.
- Create a pictogram or block graph to show information.
- Read information from tables and graphs and use this to answer questions.
- Suggest what information to collect and how to do it in order to solve a problem.

Level 3

- Find a missing number in a sequence.
- Understand the value of each digit in a three-digit number and explain.
- Multiply/divide a number by 10.
- Round numbers to find approximate answers to calculations or problems.
- Order negative and positive numbers.
- Solve problems that involve decimal numbers as money or measures.
- Recognise and write a fraction of a shape.
- Add/subtract two-digit numbers, choosing an efficient method and record the steps.
- Check answers to a calculation
- Give the multiplication sentence that is linked to a division sentence and vice versa.
- Multiply/divide a two-digit by a one-digit number and record the steps.
- Solve problems that involve addition, subtraction, multiplication and division.
- Find fractions of amounts.
- Recognise 2-D and 3-D shapes and describe their properties.
- Sort shapes describing how they have been classified.
- Identify whether shapes are symmetrical.
- Draw shapes on a grid.
- Visualise shapes.
- Identify what operation(s) are needed to solve a problem, jot down the steps taken to solve it and explain.
- Solve problems involving money, measures and time.
- Read information accurately from different sorts of graphs and charts.
- Interpret the scales along the axes of a graph to read data accurately.
- Work out what information to use to answer a data-handling question.
- Identify what calculations need to be done to answer a data-handling problem.

Level 4

- Use mental calculation strategies for addition, subtraction, multiplication and division.
- Use mental methods for calculations that involve decimals.
- Record working for mental methods that involve several steps.
- Choose when to use mental methods, when to use written methods and when to use a calculator.
- Understand what each digit in a large/decimal number is worth and can explain reasoning.
- Find a missing number in a decimal sequence.
- Order a set of decimal numbers.
- Round the numbers in a calculation to find an approximate answer.

- Describe each step done to complete a decimal calculation or problem.
- Multiply/divide a number by 10/100/1000 and explain reasoning.
- Use number facts to give some linked decimal facts.
- Solve problems that involve time, recording calculation methods clearly.
- Read a timetable/calendar in order to solve a problem.
- Solve problems that involve money, recording working for each step.
- Use a calculator effectively to solve money problems.
- Work out the size of each interval on a scale and check.
- Work out the value of any marked point on a scale.
- Estimate the value of a point that falls between two marks on a scale.
- Read a scale to solve problems involving length, weight and capacity.
- Find the information in a table or graph to answer a question.
- Read data accurately from a graph.
- Work out what calculations are needed to answer questions using data.
- Name shapes and describe their properties, using mathematical language.
- Draw or make shapes accurately.
- Explain how a set of shapes have been sorted.
- Reflect a shape accurately in a given mirror line.
- Rotate a shape about a vertex or its centre.
- Describe where a shape will be after translation.

Level 5

- Multiply and divide whole numbers and decimals by 10, 100 or 1000.
- Calculate with whole numbers and decimals, using mental and written methods as appropriate.
- Find fractions and percentages of numbers and quantities.
- Add and subtract negative numbers.
- Describe a problem and identify the mathematics needed to solve it.
- Explain mathematical thinking clearly and systematically, using words, diagrams, numbers and symbols.
- Identify and describe patterns and use them to make predictions and general statements.
- Write and use simple expressions in words and formulae.
- Solve problems using ratio and proportion and use mathematical language to describe methods.
- Solve problems involving fractions and percentages.
- Simplify fractions and ratios.
- Find equivalent fractions, decimals and percentages.
- Solve problems involving more than one step, identifying the appropriate operation for each step.
- Check that answers to a problem sounds sensible.
- Present solutions to a problem clearly, both orally and in writing.
- Describe 2-D and 3-D shapes, using accurate mathematical vocabulary.
- Use knowledge of shape properties to solve problems.
- Use knowledge of angle facts to work out angles in shapes and diagrams.
- Use and answer questions about coordinates in all four quadrants.
- Create line graphs and use them to answer questions.
- Interpret data in graphs and charts and use this to answer questions and draw conclusions.
- Explain why events are equally likely and use this to find the probability of outcomes.
- Use the range, mode, median or mean to compare two sets of data and explain.