



Maths Makes Sense

3

Medium-term plan

OXFORD

Maths Makes Sense 3 Block 1

End-of-block objectives

Arithmetic 1

- ☆ Respond to *I will act the Real Story*, you write the *Maths Story* (including the answer), for addition and subtraction of 1-digit numbers, halves, quarters and mixed numbers, e.g. $1\frac{1}{2} + 2 - \frac{1}{4} = 3\frac{1}{4}$.
- ☆ Copy and calculate the answers to vertical additions and subtractions with tricky unit columns, with reference to written number pairs if necessary.

Geometry

- ☆ Distinguish between a line through two points A and B and a line segment AB and know that the length of a line is 'infinity' and that a line segment has a length that can be measured
- ☆ Use a ruler to draw named straight line segments, e.g. AB and measure and write the length using cm and mm
- ☆ Name triangles, quadrilaterals (rectangles and squares), pentagons, hexagons, heptagons and octagons
- ☆ Recognise, name and use clockwise and anti-clockwise turns and draw an arc to show those turns.

Data and Measure

- ☆ Copy grids and bar charts accurately on cm-squared paper
- ☆ Draw hands on a clock face to show times expressed in analogue form (words)
- ☆ Write and say times in digital form
- ☆ Draw hands on a clock face to show times later/earlier than the time shown on a separate clock face (all times in multiples of five minutes)
- ☆ Calculate time differences shown on a pair of clocks.

Arithmetic 2

- ☆ Calculate fractions of quantities using pupil cups, e.g. $\frac{2}{3}$ of 6 = 4.

Reasoning

- ☆ Calculate total distances shown on sketch maps and grids using vertical addition and subtraction (including a tricky first column)
- ☆ Calculate total populations for towns shown on grids using vertical addition and subtraction (including a tricky first column)
- ☆ Write populations and distances in ascending order and descending order.

Daily practice

Grade 1

- ☆ Practise adding and taking away up to or from a total of 99
- ☆ Practise and recall multiplication facts from the two and five times tables
- ☆ Use a calculator to check answers to adding and taking away up to and from a total of 99 and multiplication facts from the two and five times tables
- ☆ Add and take away to and from a total of 10 and check answers with a calculator
- ☆ Add and take away up to and from a total of 99 with pence and check answers with a calculator
- * * * * *
- ☆ Chant times tables (up to 10)
- ☆ Use cups to complete addition and subtraction Maths Stories with 1-digit numbers, $\frac{1}{2}$ and $\frac{1}{4}$
- ☆ Join named points to draw straight line segments and measure a diagonal
- ☆ Copy grids accurately on squared paper
- ☆ Draw cups to show bigger, smaller and the same
- ☆ Use explicit information to find a Maths Story, write and calculate the vertical addition or subtraction
- ☆ Copy and calculate vertical additions and subtractions, using written number pairs
- ☆ Draw arcs on drawn polygons to show turns, and measure sides in cm
- ☆ Use explicit information to write and calculate vertical additions or subtractions with funny writing and funny counting
- ☆ Complete the questions on the 'I Can' pages in Progress Book 3A
- ☆ Discuss achievements in Progress Book 3A and fill in the chart

Resources

Maths Makes Sense Toolkit

- ☆ 10 whole cups, 4 half cups, 4 quarter cups, pupil tables, 10 pupil whole cups, 4 pupil half cups, 4 pupil quarter cups (per pair), dm sticks, ratio sticks (plain and coloured)

Other

- ☆ Lined exercise books, cm-squared exercise books, calculators, flipchart, 15-cm rulers, board set-square, clock face with moveable hands, geared clock, real clock, one blue and red pencil per child

Cross-curricular links

ICT

- ☆ Daily practice: practising calculator skills

Geography

- ☆ Reasoning: practise reading and interpreting maps

Science

- ☆ Data and Measure: practise using and interpreting bar charts

Key vocabulary

line segment • infinity • point • clockwise • anti-clockwise • arc • angle • right angle • rotation • centre of rotation • compare • comparison • ratio • replace • fair swap • digital clock notation (8:45, etc.) • implicit • explicit • Think sticks! • zonk

Maths Makes Sense 3 Block 2

End-of-block objectives

Arithmetic 1

- ☆ Write Maths Stories for all operations (+, −, ×, ÷) using fifths
- ☆ Write Maths Stories as vertical additions and subtractions and calculate with tricky tens columns, using number pairs for reference, if necessary.

Geometry

- ☆ Draw a pair of axes and label the axes 'x axis' and 'y axis'
- ☆ Plot points specified by their names and their coordinates, e.g. A (3, 5)
- ☆ Plot and label specified points, to draw polygons and measure sides and diagonals.

Data and Measure

- ☆ Draw and label points and measure accurately to draw line segments from written instructions, e.g. Draw line segment AB = 3 cm; Draw point C
- ☆ Use compasses and a pencil to measure accurately and draw a circle following instructions, e.g. draw a circle with centre C and a radius of 3 cm
- ☆ Accurately measure and draw a regular hexagon using compasses and a ruler.

Arithmetic 2

- ☆ Solve word problems involving fractions of quantities.

Reasoning

- ☆ Calculate answers to word problems using multiplication Maths Stories
- ☆ Calculate answers to word problems using division Maths Stories
- ☆ Solve a word problem using a division Maths Story and state whether the implied basic Real-Life Story is Type 1 or Type 2.

Grade 2

- ☆ Practise adding and taking away to and from a total of 99
- ☆ Practise and recall multiplication facts from the two, three, four and five times tables
- ☆ Use a calculator to check answers when adding and taking away up to and from a total of 99 and multiplication facts from the two, three, four and five times tables
- ☆ Add and take away pairs of numbers up to and from a total of 19 and check answers with a calculator
- ☆ Add and take away up to and from a total of 99 with pence and check answers with a calculator
- * * * * *
- ☆ Chant times tables (up to 10)
- ☆ Draw the correct number of $\frac{1}{5}$ cards to match a fraction
- ☆ Draw and label a pair of axes and answer questions about the positions of labelled points
- ☆ Draw and label a pair of axes and plot points using the x number and the y number
- ☆ Measure a line segment in mm and draw a circle with the same radius
- ☆ Embellish a Real-Life Story about everyday objects by giving it a context
- ☆ Answer a word problem about division
- ☆ Answer *How much is there here?* for each digit in a 4-digit number and complete vertical additions and subtractions
- ☆ Answer word problems about division and multiplication
- ☆ Complete the questions on the 'I Can' pages in Progress Book 3A
- ☆ Discuss achievements in Progress Book 3A and fill in the chart

Resources

Maths Makes Sense Toolkit

- ☆ $\frac{1}{2}$ cards, whole cups, half cups, $\frac{1}{5}$, one fifth, and a fifth cards, 4-, 3-, 2- and 1-digit place value cards, pupil tables, 10 pupil whole cups, dm stick, coloured ratio sticks, wooden stand

Other

- ☆ Lined exercise books, cm-squared exercise books, calculators, 15-cm rulers, compasses with short pencils, board compasses, pupil $\frac{1}{5}$ cards, metre ruler, board set square, flipchart (with plain and grid paper)

Cross-curricular links

ICT

- ☆ Daily practice: practising calculator skills

Science

- ☆ Arithmetic: practising reading information displayed in grids

Technology

- ☆ Data and Measure: improving skills for making accurate drawings

Key vocabulary

fifths • Think About the Word problem! • Type 1 basic Real-Life Story • Type 2 basic Real-Life Story • axis (plural axes) • x direction • y direction • x coordinate • y coordinate • set square • interior angle • compasses (pair of compasses) • centre • radius • circumference

Maths Makes Sense 3 Block 3

End-of-block objectives

Arithmetic 1

- ☆ Write Maths Stories for all four operations (+, −, ×, ÷) including fifths and sevenths with mixed numbers (no mixed denominations)
- ☆ Write addition Maths Stories as vertical additions (with tricky units and tens columns) and calculate answers
- ☆ Write subtraction Maths Stories as vertical subtractions (with tricky units or tens columns) and calculate answers

Geometry

- ☆ Know the measure in degrees (360° , 270° , 180° , 90°) of a full turn, a three-quarter turn, a half turn, a quarter turn
- ☆ Use angle templates to draw specified angles (multiples of 10°) using a named centre of rotation
- ☆ Use a set square as the angle template for a right angle

Data and Measure

- ☆ Look at a grid, bar chart or pie chart and determine the explicit information
- ☆ Interpret data in a grid, bar chart or pie chart and use implicit information to answer questions that use the vocabulary *How many more/fewer ...?; What is the difference between the number of ...?; What is the total ..?*
- ☆ Interpret data in a grid, bar chart or pie chart and write a Maths Story to calculate answers to questions about the data

- ☆ Begin to use ratio when interpreting implicit information in a grid, bar chart or pie chart to answer questions that use the vocabulary *What is the ratio of the number of ...?; What fraction of all the ...?*
- ☆ Apply the language and notation of comparison to find implicit information in a grid, bar chart, or pie chart, e.g. *Two to three; 2 : 3; $\frac{2}{3}$.*

Arithmetic 2

- ☆ Multiply a 2-digit whole number by a 1-digit number using a grid
- ☆ Round numbers to the nearest 10.

Reasoning

- ☆ Multiply a 2-digit number by a 1-digit number by partitioning and calculating the sum of the two products, e.g. $52 \times 7 = 50 \times 7 + 2 \times 7 = 350 + 14 = 364$.

Grade 3

- ☆ Practise adding and taking away to and from a total of 99
- ☆ Practise and recall multiplication facts from the two, three, four, five and ten times tables
- ☆ Use a calculator to check answers to adding and taking away up to and from a total of 99 and multiplication facts from the two, three, four, five and ten times tables
- ☆ Add and take away up to and from a total of 99 with pence and check answers with a calculator
- ☆ Practise drawing a 4-point compass
- ☆ Practise converting g/kg; cm/dm/mm
* * * * *
- ☆ Chant times tables (up to 10)
- ☆ Act the Real Story and answer the Maths Story for questions using all four operations and mixed numbers (fifths)
- ☆ Use a pointer to practise $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ of a full turn and write what angle Spike turned through
- ☆ Find explicit and implicit information from a bar chart
- ☆ Complete a grid to multiply a 2-digit multiple of ten by a 1-digit number
- ☆ Multiply a 2, 3 and 4-digit multiple of ten by a 1-digit number
- ☆ Act the Real Story and complete the Maths Story with mixed numbers (fifths)
- ☆ Draw an angle of 10° , 20° and 30° and mark it with an arc
- ☆ Partition a 2-digit number and multiply it by a 1-digit number as the sum of two products
- ☆ Complete the questions on the 'I Can' pages in Progress Book 3B
- ☆ Discuss achievements in Progress Book 3B and fill in the chart

Resources

Maths Makes Sense Toolkit

- ☆ 10 whole cups, $\frac{1}{5}$ cards, place value cards, 10-degree angle template, pupil tables, pupil whole cups, pupil half cups, pupil quarter cups, pupil 10-degree angle templates, dm sticks, ratio sticks (coloured sticks only), wooden stand

Other

- ☆ Lined exercise books, cm-squared exercise books, plain exercise books, 15-cm rulers, metre rule, scissors, calculators, modelling clay, pupil $\frac{1}{5}$ cards, $\frac{1}{7}$ cards (reused from PCM 15 Block 3, Arithmetic 1, Lesson 1), red and blue coloured pencils, board set square, set squares, flipchart

Cross-curricular links

ICT

- ☆ Daily practice: practising calculator skills

Science

- ☆ Data and Measure: gaining confidence with information displayed in grids and becoming familiar with information displayed in pie charts
- ☆ Data and Measure: choosing appropriate units of measure
- ☆ Arithmetic: rounding numbers to begin to understand significance and sensible quantities to quote when measuring

Key vocabulary

sevenths • product • same-value swap • equal-value swap • Make the impossible... possible • commutative law for multiplication • degrees (including notation $^\circ$ for degrees) • 360° , 270° , 180° , 90° as full, three-quarter, half and quarter turns • template • centre of rotation • pie chart

Maths Makes Sense 3 Block 4

End-of-block objectives

Arithmetic 1

- ☆ Write addition, subtraction, multiplication and division Maths Stories, including negative numbers (no combining positive and negative numbers unless the result is zero)
- ☆ Write addition, subtraction, multiplication and division Maths Stories including fifths, sevenths and other denominations with mixed numbers (no tricky denominations), e.g. $2\frac{4}{5} + 1\frac{3}{5} = 4\frac{2}{5}$
- ☆ Write Maths Stories as vertical additions and subtractions (with tricky units or tens columns) and calculate answers.

Geometry

- ☆ Recognise parallel lines and not parallel lines
- ☆ Draw a line segment specified by, e.g. AB with coordinates for A and B, and draw a line segment parallel to AB
- ☆ Draw a line segment specified by, e.g. AB with coordinates for A and B, and draw a line segment perpendicular to AB
- ☆ For two drawn lines described as being parallel, draw the arrow symbols and know that the arrows 'speak to us' to indicate they are parallel
- ☆ Recognise the shape and say the name *Parallelogram*.

Data and Measure

- ☆ Decide which units to use when measuring length (mm/cm/ dm/m) and mass (g/kg)
- ☆ Calculate areas of drawn rectangles by counting squares and write the answer using square units, e.g. 12 cm^2 , 12 dm^2 , 12 m^2

- ☆ Calculate volumes of drawn cuboids by counting cubes and write the answer using cubic units, e.g. 12 cm^3
- ☆ For a labelled picture of a cuboid, write the lengths of edges and the perimeters and areas of named faces.

Arithmetic 2

- ☆ Solve word problems involving division (including answers with remainders)
- ☆ Calculate division Maths Stories with remainders and write remainders as a number and as a fraction, e.g. $43 \div 5 = 8\text{ r } 3$ or $8\frac{3}{5}$.

Reasoning

- ☆ Use vertical subtraction to calculate answers to 'How much farther' word problems
- ☆ Use grid multiplication for the product of a 2-digit number and a 1-digit number to calculate answers to word problems
- ☆ Use multiplication tables to write the answers to divisions with remainders, e.g. $27 \div 4 = 6\text{ r } 3$
- ☆ Write a ratio as a fraction, e.g. $3 : 7$ as $\frac{3}{7}$, and use the fraction to write the answers to divisions with remainders as a mixed number, e.g. $31 \div 7 = 4\frac{3}{7}$.

Grade 4

- ☆ Practise adding and taking away to and from a total of 99
- ☆ Practise and recall multiplication facts from the two, three, four, five, six and ten times tables
- ☆ Use a calculator to check answers to adding and taking away up to and from a total of 99 and multiplication facts from the two, three, four, five, six and ten times tables
- ☆ Add and take away up to and from a total of 99 with pounds and check answers with a calculator
- ☆ Practise converting times between analogue and digital form
- ☆ Practise converting ml/ℓ; mm/cm/dm/m
- ☆ Practise saying how many degrees there are in a right angle
- ☆ Recognise how many degrees in a straight line
- ☆ Practise drawing a 4-point compass
- * * * * *
- ☆ Chant times tables (up to 10)
- ☆ Add or subtract two 1-digit negative numbers using cards
- ☆ Recognise whether pairs of lines are parallel or not
- ☆ Identify shapes as 1D, 2D or 3D
- ☆ Embellish Type 1 and Type 2 basic Real-Life Stories using division without remainders
- ☆ Copy a 2-digit by 1-digit multiplication Maths Story into a grid to answer a word problem
- ☆ Complete multiplication and division Maths Stories with negative numbers using cards
- ☆ Draw and label a pair of axes. Plot points and draw line segments. Show pairs of parallel lines
- ☆ Calculate divisions with remainders, using times tables, and write answers with a remainder and as a mixed number
- ☆ Complete the questions on the 'I Can' pages in Progress Book 3B
- ☆ Discuss achievements in Progress Book 3B and fill in the chart

Resources

Maths Makes Sense Toolkit

- ☆ Negative number cards (0, -1, 1), $\frac{1}{5}$ cards, place value cards, 10 whole cups, pupil tables, pupil whole cups, 2 long and 1 medium plain ratio sticks, dm sticks, wooden stand

Other

- ☆ Lined exercise books, pupil negative number cards (0, -1, 1), pupil $\frac{1}{5}$ cards, cm-squared exercise books, 15-cm rulers, metre ruler, calculators, a playing card, A3 paper, an apple, kitchen and bathroom scales, cm-squared paper, scissors and sticky tape, metre ruler, a mixing bowl of marbles or coins, a mixing bowl of rice, spoons, 1 kg bags of sugar, one 1 cm matchstick, one 1 cm × 1 cm square of card, one 1 dm × 1 dm × 1 dm cube made with card, one 1 dm × 1 dm square of card, 3D model of a cuboid e.g. a building brick, flipchart, whiteboard

Cross-curricular links

ICT

- ☆ Daily practice: practising calculator skills

English

- ☆ Arithmetic: using imagination to make up stories with a mathematical content

Technology

- ☆ Data and Measure: improving skills for making accurate drawings

Key vocabulary

negative [number] • superscript notation for negative numbers (e.g. -4) • parallel • parallelogram • 1D • 2D • 3D • area • volume

Maths Makes Sense 3 Block 5

End-of-block objectives

Arithmetic 1

- ☆ Write addition and subtraction Maths Stories, including negative numbers (with tricky examples), combining positive and negative numbers to give results other than zero
- ☆ Write addition, subtraction, multiplication and division Maths Stories using fifths and other denominations with mixed numbers (no tricky denominations)
- ☆ Write Maths Stories as vertical additions and subtractions (with tricky units, tens or hundreds columns) and calculate answers.

Geometry

- ☆ Use compasses and a ruler to copy triangles
- ☆ Compare triangles to say whether or not they are congruent
- ☆ Draw a triangle specified by coordinates
- ☆ On axes, draw a triangle congruent to another triangle.

Data and Measure

- ☆ Draw a bar chart for the data that children have collected using a tally chart
- ☆ Calculate the totals of and differences between two prices, e.g. £3.48 and £1.21.

Arithmetic 2

- ☆ Calculate answers to addition, subtraction, multiplication and division Maths Stories, including tenths written as fractions and decimal fractions
- ☆ Calculate vertical additions and subtractions including decimals (one decimal point only)
- ☆ Write squares and square roots using written multiplication Maths Stories for reference.

Reasoning

- ☆ Calculate a Maths Story using the complement of a multiple of ten to one hundred
- ☆ Write the fraction shaded and the fraction not shaded for a picture showing a shaded fraction of a shape
- ☆ Write the sum of two fractions that total one and the difference between one and a shaded fraction using the complement to one
- ☆ Partition and rearrange numbers to calculate the answer for sums or differences of two 2-digit numbers.

Grade 5

- ☆ Practise adding and taking away to and from a total of 99
 - ☆ Practise and recall multiplication facts from the two, three, four, five, six and ten times tables
 - ☆ Use a calculator to check answers to adding and taking away up to and from a total of 99 and multiplication facts from the two, three, four, five, six and ten times tables
 - ☆ Add and take away up to and from a total of 99 with pounds and pence, and check answers with a calculator
 - ☆ Practise converting times between analogue and digital form
 - ☆ Practise converting ml/ℓ; mm/cm, kg/g
 - ☆ Practise saying how many degrees there are in three quarter turns
 - ☆ Recognise how many degrees in a right angle and in one full turn
- * * * * *
- ☆ Chant times tables (up to 10)
 - ☆ Calculate additions with negative numbers and complete a tricky vertical subtraction with 4-digit numbers
 - ☆ Copy a triangle using compasses
 - ☆ Write down the total number of tally marks
 - ☆ Complete a tally chart
 - ☆ Calculate the fraction shaded/not shaded by counting and making a comparison
 - ☆ Calculate a vertical addition and subtraction with 4-digit numbers and calculate subtraction with negative numbers
 - ☆ Plot the points and draw the triangle
 - ☆ Write the words in symbols and use partitioning to work out the totals
 - ☆ Complete the questions on the 'I Can' pages in Progress Book 3C
 - ☆ Discuss achievements in Progress Book 3C and fill in the chart

Resources

Maths Makes Sense Toolkit

- ☆ Negative number cards (0, -1, 1), pupil tables, tenth cards (tenth, $\frac{1}{10}$, •1, 0•1, •10, 0•10), $\frac{1}{5}$ cards, place value cards, percentage disc, wooden stand

Other

- ☆ Lined exercise books, cm-squared exercise books, calculators, 15-cm rulers, metre ruler, compasses with short pencils, board compasses, pupil negative number cards (0, -1, 1), pupil $\frac{1}{5}$ cards, pupil tenth cards (tenth, $\frac{1}{10}$, •1, 0•1, •10, 0•10), small blank cards (optional), scissors, paper clips, flipchart

Cross-curricular links

ICT

- ☆ Daily practice: practising calculator skills

Technology

- ☆ Geometry: improving skills for making accurate drawings

Science

- ☆ Data and Measure: becoming familiar with information being collected in tally charts
- ☆ Data and Measure: using tally charts to construct bar charts

Key vocabulary

baseline • congruent • tally mark • tally chart • point (decimal numbers) • complement • rearrange • square (numbers) • square root

Maths Makes Sense 3 Block 6

End-of-block objectives

Arithmetic 1

- ☆ Write Maths Stories for all four operations including negative numbers (with tricky examples for addition and subtraction)
- ☆ Write Maths Stories for all four operations using fifths and other denominations with mixed numbers (no tricky denominations)
- ☆ Write Maths Stories as vertical additions and subtractions (with one tricky units, tens or hundreds column) and calculate answers.

Geometry

- ☆ Recognise and identify a pyramid or prism from its net
- ☆ For a 2D drawing, identify which 3D shape it represents
- ☆ Draw a triangle specified by coordinates and describe it as scalene, equilateral or isosceles.

Data and Measure

- ☆ Estimate, measure and write mass using kg/g and capacity using ℓ /ml
- ☆ Calculate the area of drawn rectangles, by recognising that they are made up of several identical rows of 1-cm^2 squares, e.g. $\text{Area} = 3\text{ cm}^2 \times 4 = 12\text{ cm}^2$
- ☆ Calculate the volume of drawn cuboids, by recognising that they are made up of several identical rows of 1-cm^3 cubes, e.g. $\text{Volume} = 4\text{ cm}^3 \times 4 = 16\text{ cm}^3$
- ☆ Calculate answers to word problems that involve the subtraction of two areas, e.g. $12\text{ cm}^2 - 5\text{ cm}^2 = 7\text{ cm}^2$

Arithmetic 2

- ☆ Identify when addition is required to solve a word problem
- ☆ Identify when subtraction is required to solve a word problem
- ☆ Identify when multiplication is required to solve a word problem
- ☆ Identify when division is required to solve a word problem.

Reasoning

- ☆ Calculate answers to word problems using division Maths Stories
- ☆ Solve a word problem using a division Maths Story and state whether the implied basic Real-Life Story is Type 1 or Type 2
- ☆ Identify odd and even numbers
- ☆ Complete sequences of odd and even numbers
- ☆ Carry out simple calculations using addition or multiplication and say whether the sum or product is odd or even
- ☆ Calculate total costs and differences between prices in a grid
- ☆ Convert puzzles into simple drawings and answer related questions.

Grade 6

- ☆ Practise adding and taking away to and from a total of 99
- ☆ Practise and recall multiplication and division facts from the two, three, four, five, six and ten times tables
- ☆ Practise division facts from the three times table
- ☆ Practise rounding to the nearest ten or hundred
- ☆ Practise doubling 1-digit numbers
- ☆ Use a calculator to check answers to adding and taking away up to and from a total of 99, multiplication and division facts from the two, three, four, five, six and ten times tables and doubling 1-digit numbers
- ☆ Add and take away up to and from a total of 99 with pounds and pence, and check answers with a calculator
- ☆ Identify times earlier and later than given times
- ☆ Practise converting ml/ℓ; dm/m/cm/mm, kg/g
- ☆ Chant times tables (up to 10)
- ☆ Act Real Stories for calculations involving negative numbers and all operations
- ☆ Calculate 4-digit vertical additions and subtractions with tricky columns in the hundreds column
- ☆ Answer addition and subtraction word problems
- ☆ Solve division word problems
- ☆ Complete sequences and work out the sums and products of odd and even numbers
- ☆ Write the Maths Story and the basic Real-Life Story to calculate areas of rectangles
- ☆ Measure the sides of each triangle and draw a line to join it to its special name
- ☆ Calculate totals of prices of shopping items
- ☆ Complete the questions on the 'I Can' pages in Progress Book 3C
- ☆ Discuss achievements in Progress Book 3C and fill in the chart

Resources

Maths Makes Sense Toolkit

- ☆ Negative number cards (0, -1, 1), $\frac{1}{2}$ cards, $\frac{1}{4}$ cards, $\frac{1}{5}$ cards, whole cups, half cups (optional), pupil tables, pupil whole cups, 0–99 number grid, wooden stand

Other

- ☆ Lined exercise books, cm-squared exercise books, calculators, 15-cm rulers, pupil negative number cards (0, -1, 1), pupil $\frac{1}{5}$ cards, selection of plastic or wooden 3D polyhedra (with no curved edges or faces, e.g. square-based pyramid, triangular-based pyramid, heptagonal-based pyramid, triangular prism, hexagonal prism, cube, cuboid), square-based pyramid or a triangle-based prism, real-life examples of pyramids and prisms (not cones or cylinders), plain paper, A4 paper or card, scissors, glue, modelling clay, small tin of baked beans, apples, 200 g of beads in sealed plastic bags, cotton reels, 2 kg bags of potatoes, bath sponges, potatoes, 500 g of rice in sealed bags, 2 kg of apples in sealed bags, water, 10 ml dessert spoons, coffee mugs, large plastic bottles (e.g. 2 litre), a bowl, a large glass, small glasses, plastic buckets, kitchen weighing scales, funnels, flipchart

Cross-curricular links

ICT

- ☆ Daily practice: practising calculator skills

Science

- ☆ Data and Measure: measuring mass and volume
- ☆ Reasoning: using and interpreting information presented in grids

Key vocabulary

triangular-based • square-based
• rectangular-based • isosceles
• equilateral • scalene • weight
• capacity •
ordinal numbers (first, second,
third, etc.)