

Maths Meetings non-negotiables term-by-term


The topics below must be included each term as some of the areas are **not** covered in the Mathematics Mastery units of work.


Teachers should also consult the more detailed guidelines in this document for suggested activities and other areas to include.

Term	Detail:
Autumn	<p><u>Number:</u></p> <ul style="list-style-type: none"> Counting in tenths and hundredths forwards and backwards Using the multiplication tables up to 12×12 Roman numerals to 100 (I to C) Add and subtract 3-digit numbers using a range of calculation strategies Compare and order fractions <p><u>Shape and Pattern:</u></p> <ul style="list-style-type: none"> Recognise 3-D shapes in different orientations and describe their properties Identify right angles and compare angles as greater or less than a right angle, introducing terms 'acute' and 'obtuse' Identify lines of symmetry in the surrounding environment and regular 2-D shapes <p><u>Time:</u></p> <ul style="list-style-type: none"> Tell and write the time from an analogue clock, including Roman numerals from I to XII and 12-hour and 24-hour clocks <p><u>Money:</u></p> <ul style="list-style-type: none"> Add and subtract money, including mixed units, and give change in practical contexts
Spring	<p><u>Number:</u></p> <ul style="list-style-type: none"> Divide by ten and 100 to get a decimal fraction Use the number line to show fractions, numbers and measures Recognise and use factor pairs and commutativity in mental calculations <p><u>Geometry and shape:</u></p> <ul style="list-style-type: none"> Calculate the perimeters of rectilinear 2-D shapes on centimetre grids
Summer	<p><u>Number:</u></p> <ul style="list-style-type: none"> Identify the place value of the digits in a number with up to two decimal places Suggest a decimal fraction that is equivalent to a fraction in tenths or hundredths Round decimals with one decimal place to the nearest whole number Compare numbers with the same number of decimal places up to two decimal places <p><u>Geometry, Position and Direction:</u></p> <ul style="list-style-type: none"> Use flags to identify angles, shapes, symmetry, parallel and perpendicular lines Describe positions on a 2-D grid as coordinates in the first quadrant <p><u>Measures:</u></p> <ul style="list-style-type: none"> Recognise and write decimal equivalents to one quarter, one half and three quarters in the context of capacity, length and mass <p><u>Money:</u></p> <ul style="list-style-type: none"> Recognise how many ten pence pieces equal one pound, how many one pence pieces equal one pound and relate them to tenths and hundredths of a pound Compare amounts of money up to two decimal places

Other possible areas to include in Maths Meetings

	Areas to include	Suggested ideas
Calendar maths	<p>Autumn, spring & summer:</p> <ul style="list-style-type: none"> Days of the week – today is, tomorrow will be, yesterday was Months of the year – last month, this month, next month Number of days in each month and year, including leap years Time, date and year Patterns of 7 on the calendar Special events, e.g. Christmas, Easter, birthdays Weather Measure and read the temperature in degrees Celsius Collect and measure the rainfall in ml Pupils' dates of birth 	<ul style="list-style-type: none"> 'Days of the week' song (Adams family tune http://www.youtube.com/watch?v=HtQcnZ2JWsY) Rhyme on the months of the year: '30 days hath September, April, June and November...' 'What's the weather' song (several versions available on YouTube) Today is Monday the 11th - what will the date be next Monday? What was the date last Monday? Collate and compile weather data using a bar chart Record the daily temperature using a line graph Compile the total weekly rainfall in ml
Data handling and representation	<p>Autumn:</p> <ul style="list-style-type: none"> Interpret and present data using bar charts, pictograms and tables Solve one-step and two-step problems using information presented in bar charts, pictograms and tables <p>Spring & summer:</p> <ul style="list-style-type: none"> Interpret and present discrete and continuous data using bar charts, pictograms, tables, Venn and Carroll diagrams and time graphs 	<ul style="list-style-type: none"> Temperature and rainfall of the day can be represented on line graphs and tables. At the end of a set period of time, e.g. 1 week or 1 month, the teacher should set problems based on pupils' findings Compile bar charts, pictograms and tables based on other opportunities that may arise in the classroom, e.g. a daily timetable for the class

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Number	<p>Autumn 1:</p> <ul style="list-style-type: none"> Count in multiples of 6, 8, 25, 100 and 1000 Count in tenths and hundredths forwards and backwards Multiplication and division tables up to 9×9 Order and compare numbers within 10 000 Roman numerals to 100 (I to C) Round any number to the nearest ten, hundred and thousand Add and subtract three-digit numbers mentally Recognise and use fractions as numbers Compare and order fractions Add and subtract fractions with the same denominator within one whole e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ <p>Autumn 2:</p> <ul style="list-style-type: none"> Count in multiples of 7, 9, 50, 100 and 1000 Multiplication and division tables up to 12×12 <p>Spring:</p> <ul style="list-style-type: none"> Divide by 10 and 100 to get a decimal fraction Use the number line to show fractions, numbers and measures Multiply three numbers together Estimate the answer when adding and subtracting and use inverse operations to check Count in decimal fractions (after Unit 8) Recognise and use factor pairs and commutativity in mental calculations <p>Summer:</p> <ul style="list-style-type: none"> Identify the place value of the digits in a number with up to two decimal places Suggest a decimal fraction that is equivalent to a fraction in tenths or hundredths Suggest decimal fractions between numbers (see example) Count in tenths and hundredths forwards and backwards from any number Round decimals with one decimal place to the nearest whole number Compare numbers with the same number of decimal places up to two decimal places 	<ul style="list-style-type: none"> Skip counting songs Number of the week - pick a number to focus on every week and complete such activities as: count on or back in tens; how many hundreds, tens and ones; reverse the digits – what is the number now? What is the biggest, smallest number you can make using the same digits? Secret number: it is even, it has 6 in the tens column, it is greater than 500, etc. Missing number: 4500, 5500, _____, 7500 The teacher writes 3 or 4 multiplication or division sums on the board, ensuring that one of them is wrong. The children must work out which one it is. Roman numeral of the day – (could correspond to the date); change the number by adding one more or less Convert numbers to roman numerals Decimal counting: 1.91, 1.92, 1.93, ___ What does the digit 6 in 3.64 represent? What does the digit four represent? What is the decimal fraction equivalent to two tenths and five hundredths? Twenty-nine hundredths? Suggest a decimal fraction between 4.1 and 4.2 Place these decimals on a line from 0 to 2: 0.3, 0.1, 0.9, 0.5, 1.2, 1.9 

	Areas to include	Suggested ideas
<p>Coordinates, shape and symmetry</p> <p>Geometry—shape</p>	<p>Autumn:</p> <ul style="list-style-type: none"> Recognise 3-D shapes in different orientations and describe them Identify right, acute and obtuse angles using the correct vocabulary Identify horizontal and vertical lines and pairs of perpendicular and parallel lines Calculate the perimeter of simple 2-D shapes Identify lines of symmetry in regular 2-D shapes <p>Spring:</p> <ul style="list-style-type: none"> Identify lines of symmetry in 2-D shapes Recognise what fraction of a shape is shaded Calculate the perimeters of rectilinear 2-D shapes on centimetre grids <p>Summer:</p> <ul style="list-style-type: none"> Use flags to identify angles, shapes, symmetry, parallel and perpendicular lines Describe positions on a 2-D grid as coordinates in the first quadrant 	<ul style="list-style-type: none"> Feely bag activities – guess the shape that I am describing Identify right, acute and obtuse angles in the surrounding environment Use a different shape each day or week and identify its lines of symmetry Use the classroom, current or previous Big Pictures, or general landscape pictures to identify horizontal and vertical lines as well as perpendicular and parallel lines <p>What fraction of this shape is shaded?</p>  <ul style="list-style-type: none"> Select a flag and investigate the shapes, angles, lines of symmetry, parallel and perpendicular lines on the flag. Change the flag each week (http://rich.maths.org/7749) Write the coordinates for point A on this shape:

	Areas to include	Suggested ideas
Measure: capacity, length, weight and money	Autumn: <ul style="list-style-type: none"> • Compare, add and subtract ml and l • Compare, add and subtract lengths in m, cm, mm • Calculate the perimeters of simple 2-D shapes • Comparison of lengths, including simple scaling by integers e.g. twice as long or five times as high • Compare, add and subtract masses in kg and g • Solve problems, including missing number problems using number facts, place value and more complex addition and subtraction problems • Add and subtract money, including mixed units, and give change in practical contexts 	<ul style="list-style-type: none"> • Collect rainwater overnight and keep a record graphically or using pictures • Compile the total weekly or monthly rainfall amounts • Scale questions could include find something in the classroom that is twice as long as the book or half as long as the table. • Which is heavier – 300 g or 300 kg? • Missing notes and coins – children must calculate how much money is missing and what coins and notes are missing • Practical word problems, including addition and subtraction problems, could integrate with measures, e.g. 300 g of carrots costs 61p. How much would 900 g cost? If I had £2, how much change would I receive? • Menu of prices and calculations to follow using the menu. A bar chart could be used to represent quantities of food sold.

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Measure: capacity, length, weight and money	Summer: <ul style="list-style-type: none"> Recognise and write decimal equivalents to one quarter, one half and three quarters in the context of capacity Recognise ml written in l Solve simple measure problems Recognise and write decimal equivalents to one quarter, one half and three quarters in the context of length Recognise centimetres written in metres Round lengths to the nearest metre Solve simple measure problems Find the area of rectilinear shapes by counting squares Recognise and compare weights written in kilograms with up to two decimal places Recognise how many ten pence pieces equal a pound, how many one pence pieces equal a pound and relate them to tenths and hundredths of a pound Round money to the nearest pound Compare amounts of money up to two decimal places Solve simple money problems involving fractions and decimals 	<ul style="list-style-type: none"> Compare containers – which holds the most, least? What is the total capacity? Compare the heights of people and the lengths of everyday items around the classroom Compare masses of various items from the classroom Which of these shows 250ml? 2.05 l; 2.50 l; $\frac{1}{4}$ l Problem of the day/week: a full bucket holds $5\frac{1}{2}$ litres. A full jug holds $\frac{1}{2}$ a litre. How many jugs full of water will fill the bucket? What would 125cm be if written in metres? (1.25m) Round these lengths to the nearest metre: 2.5m, 4.7m, 7.9m Problem of the day/week: Allen jumped 2.25 metres on his second try at the long jump. This was 75 centimetres longer than on his first try. How far in metres did he jump on his first try? Show pupils a rectilinear shape drawn on square paper and ask them to calculate the area and perimeter. Use a different shape each day and then compare the areas and the perimeters of the five shapes on a Friday. Round these costs to the nearest pound: £ 2.91, £11.65, £7.50 Which is less: £6.50 or £6.05? How many pence is £2.98? £6.50? £3.00? What is the total of ten £1 coins and seven 1p coins. (£10.07) Problem of the day/week: A box of four cakes costs £2.96. How much does each cake cost? Mike and Lucy buy 3 boxes of cakes between them. Mike pays £4.50. How much must Lucy pay?

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Time	Autumn, spring and summer: <ul style="list-style-type: none"> Tell and write the time from an analogue clock, including Roman numerals from I to XII and 12-hour and 24-hour clocks Estimate and read time to the nearest minute Compare times in terms of seconds, minutes and hours Vocabulary to include: o'clock, a.m., p.m., morning, afternoon, noon and midnight Compare durations of events, e.g. the length of time taken to complete an activity Convert units of time – hours to minutes, minutes to seconds, years to months, weeks to days Look at timetables using correct vocabulary: arrive and depart, start time, end or finish time, first, last 	<ul style="list-style-type: none"> Egg timers measuring one minute could be used at different intervals throughout the Maths Meeting or day Clock work – 1 minute or hour before or after Read and interpret a bus timetable, TV schedule, cinema guide, etc.

