

Reasoning about the Number System

Counting

- count in multiples of 6, 7, 9, 25 and 1000
- count backwards through zero to include negative numbers
- count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

Value of digits

- find 1000 more or less than a given number
- recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- identify, represent and estimate numbers using different representations
- convert between different units of measure [for example, kilometre to metre; hour to minute]
- recognise and write decimal equivalents of any number of tenths or hundredth
- recognise and write decimal equivalents to $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths (through context of measures)
- read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

Ordering and comparing

- order and compare numbers beyond 1000
- compare numbers with the same number of decimal places up to two decimal places
- estimate, compare different measures, including money in pounds and pence

Rounding

- round any number to the nearest 10, 100 or 1000
- round decimals with one decimal place to the nearest whole number

Problem Solving

- solve number and practical problems that involve all of the above and with increasingly large positive numbers
- solve simple measure and money problems involving fractions and decimals to two decimal places.
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Reasoning about Addition and Subtraction

- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- **Add and subtract numbers mentally, including:**
 - a four-digit number and ones
 - a four-digit number and tens
 - a four-digit number and hundreds
 - A four-digit number and thousands
- estimate and use inverse operations to check answers to a calculation
- calculate different measures, including money in pounds and pence
- calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
- solve simple measure and money problems involving fractions and decimals to two decimal places.

Statistics

- interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
- solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

Reasoning about Multiplication and Division

- recall multiplication and division facts for multiplication tables up to 12×12
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
- recognise and use factor pairs and commutativity in mental calculations
- multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- **Division of 3 and 2 digit numbers using 2,5 and 10 times tables – mental methods**
- solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
- calculate different measures, including money in pounds and pence
- solve simple measure and money problems involving fractions and decimals to two decimal places.
- solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. (link to 6x,60x,7x and 12x)

Statistics

- interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
- solve comparison information presented in bar charts, pictograms, tables and other graphs.

Year 4 Curriculum 2019

<p>Reasoning about Fractions including decimals</p> <ul style="list-style-type: none">• recognise and show, using diagrams, families of common equivalent fractions• solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number• add and subtract fractions with the same denominator	<p>Reasoning about Measures</p> <ul style="list-style-type: none">• Convert between different units of measure [for example, kilometre to metre; hour to minute]• measure perimeter of a rectilinear figure (including squares) in centimetres and metres• find the area of rectilinear shapes by counting squares• read, write and convert time between analogue and digital 12- and 24-hour clocks• interpret and present discrete and continuous data using appropriate graphical methods and time graphs.	<p>Reasoning about Geometry – properties of shape</p> <ul style="list-style-type: none">• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes• identify acute and obtuse angles and compare and order angles up to two right angles by size• identify lines of symmetry in 2-D shapes presented in different orientations• complete a simple symmetric figure with respect to a specific line of symmetry.• Revise 3-D shape properties <p>Geometry – position and direction</p> <ul style="list-style-type: none">• describe positions on a 2-D grid as coordinates in the first quadrant• describe movements between positions as translations of a given unit to the left/right and up/down• plot specified points and draw sides to complete a given polygon.
<p>Reasoning about Statistics</p> <ul style="list-style-type: none">• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs		