

|  |  |  | involving counting on or back in different steps. <br> Use place value and number facts to solve problems. | Find 1, 10 or 100 more or less than a given number. <br> Round numbers to at least 1000 to the nearest 10 or 100. <br> Find the effect of multiplying a one- or two-digit number by 10 and 100 , identify the value of the digits in the answer. <br> Describe and extend number sequences involving counting on or back in different steps. <br> Read Roman numerals from I to XII. <br> Solve number problems and practical problems involving these ideas. | Order and compare numbers beyond 1000. <br> Order and compare numbers with the same number of decimal places up to two decimal places. <br> Find $0.1,1,10,100$ or 1000 more or less than a given number. <br> Round any number to the nearest 10 , 100 or 1000 . <br> Round decimals (one decimal place) to the nearest whole number. <br> Find the effect of dividing a one- or two-digit number by 10 and 100 , identifying the value of the digits in the answer. <br> Describe and extend number sequences involving counting on or back in different steps, including sequences with multiplication and division steps. <br> Read Roman numerals to 100 and know that over time, the numeral system changed to include | Multiply/divide whole numbers and decimals by 10,100 and 1000 . <br> Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero. <br> Describe and extend number sequences including those with multiplication/division steps and where the step size is a decimal. <br> Read Roman numerals to 1000 (M); recognise years written as such. <br> Solve number and practical problems that involve all of the above. |  |
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Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.

Represent and use number bonds and related subtraction facts within 20.

Add and subtract one-digit and two-digit numbers to 20 , including zero (using concrete objects and pictorial representations).

Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7=$ $\square-9$. calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting).

Select a mental strategy appropriate for the numbers involved in the calculation.

Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.

Understand subtraction as take away and difference (how many more, how many less/fewer).

Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 .

Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes).

Add and subtrac numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones, a two-digit number and tens - two two-digit numbers, adding three one-digit numbers. method).

Select a mental strategy appropriate strategy appropria for the number calculation.

Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context.

## Recall/use

addition/subtraction facts for 100 (multiples of 5 and 10).

Derive and use addition and subtraction facts for 100.

Derive and use addition and subtraction facts for multiples of 100 totalling 1000.

Add and subtract numbers mentally, including: - a threedigit number and ones, a three-digit number and tens, a three-digit number and hundreds.

Add and subtract numbers with up to

Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).

Select a menta strategy appropriate for the numbers involved in the calculation.

Recall and use addition and subtraction facts for 100.

Recall and use + facts for multiples of 100 totalling 1000.

Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).

Add and subtract mentally combinations of two and three digit numbers and decimals to one decimal place.

Add and subtract numbers with up to 4 digits and
decimals with one decimal place using the formal written methods of columnar addition and subtraction where appropriate.

Choose an appropriat strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).

Select a mental strategy appropriate for the numbers involved in the calculation.

Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).

Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places).

## Add and subtract

 numbers mentally with increasingly large numbers and decimals to two decimal placesAdd and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods (columnar addition and subtraction).

Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.

Solve addition and subtraction multi-step problems in contexts, deciding which

Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).

Select a mental strategy appropriate for the numbers in the calculation.

Recall and use addition and subtraction facts for 1 (with decimals to two decimal places).

Perform mental calculations including with mixed operations and large numbers and decimals.

Add and subtract whole numbers and decimals using formal written methods (columnar addition and subtraction).

Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

Use knowledge of the order of operations to carry out calculations.

Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Solve problems involving all four operations, including those with missing numbers.




|  |  |  |  |  | scaling <br> $s$ and harder <br> ondence <br> such as $n$ are <br> ed to $m$ | g by simple ons and problems ving simple rates. |  |
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| Number: <br> Fractions. | EYFS-Skills-and- <br> Progression-Map- <br> 2023-006.pdf <br> (moorside- <br> academy.co.uk) | Understand that a fraction can describe part of a whole. <br> Understand that a unit fraction represents one equal part of a whole. <br> Recognise, find and name a half as one of two equal parts of an object shape or quantity (including measure). <br> Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity (including measure). | Understand and use the terms numerator and denominator. <br> Understand that a fraction can describe part of a set. <br> Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be. <br> Recognise, find, name and write fractions a third, quarter, 2 quarters and 3 quarters of a length, shape, set of objects or quantity. <br> Write simple fractions and recognise $\frac{2}{4}$ the equivalence of a ${ }^{\frac{1}{2}}$ | Show practically or pictorially that a fraction is one whole number divided (e.g. $\frac{3}{4} \quad$ by another interpreted as $3 \div 4$ ) <br> Understand that finding a fraction of an amount relates to division <br> Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10 <br> Recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators <br> Recognise and use fractions as numbers: unit fractions and nonunit fractions with small denominators <br> Recognise and show, using diagrams, equivalent fractions with small <br> denominators <br> Add and subtract fractions with the same denominator within one whole <br> Compare and order unit fractions, and fractions with the same | Understand that a fraction is one whole number divided by 3 another (e.g. 4 can be interpreted as $3 \div$ 4) <br> Recognise, find and write fractions of a discrete set of objects including those with a range of numerators and denominators <br> Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten <br> Count on and back in steps of unit fractions <br> Compare and order unit fractions and fractions with the same denominators (including on a number line) <br> Recognise and show, using diagrams, families of common equivalent fractions <br> Recognise and write decimal equivalents of any number of tenths or hundredths <br> Recognise and write decimal equivalents to $1 / 4,1 / 3$ and $2 / 4$. <br> Add and subtract fractions with the same denominator (using diagrams) | Recognise mixed numbers and improper fractions and convert from one form to the other <br> Read and write decimal numbers as fractions $\left(\text { e.g. } 0.71=\frac{71}{100}\right)$ <br> Count on and back in mixed number steps such as $1 / 2$ <br> Compare and order fractions whose denominators are all multiples of the same number (including on a number line) <br> Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <br> Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents <br> Add and subtract fractions with denominators that are the same and that are multiples of the same number (using diagrams) <br> Write statements > 1 as <br> (e.g. $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}$ ) <br> a mixed number | Compare and order fractions, including fractions > 1 (including on a number line) <br> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination <br> Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts <br> Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and $\frac{3}{8}$ ) <br> Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions <br> Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2}=\frac{1}{8}$ ) <br> Divide proper fractions by whole numbers <br> Find simple percentages of amounts <br> Solve problems involving fractions <br> Solve problems which require answers to be rounded to specified degrees of accuracy <br> Solve problems involving the calculation of percentages (e.g. of measures and such as $15 \%$ of 260 ) and the use of percentages for comparison |
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| Statistics. | EYFS-Skills-and-Progression-Map-2023-006.pdf (moorsideacademy.co.uk) |  |  |  |  | Complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes) <br> Complete, read and interpret information in tables and timetables <br> Solve comparison, sum and difference problems using information presented in all types of graph including a line graph <br> Calculate and interpret the mode, median and range | Continue to complete and interpret information in a variety of sorting diagrams (including sorting properties of numbers and shapes) <br> Interpret and construct pie charts and line graphs and use these to solve problems <br> Solve comparison, sum and difference problems using information presented in all types of graph <br> Calculate and interpret the mean as an average |
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| FDP, Ratio, <br> Proportion and Algebra. | EYFS-Skills-and- <br> Progression-Map- <br> 2023-006.pdf <br> (moorside- <br> academy.co.uk) |  |  |  |  |  | Compare and order fractions, including fractions > 1 (including on a number line). <br> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. <br> Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. <br> Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and 3/8 <br> Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions <br> Multiply simple pairs of proper fractions, writing the answer in its simplest form $\text { (e.g. } \frac{1}{4} \times \frac{1}{2}=\frac{1}{8} \text { ) }$ <br> Divide proper fractions by whole numbers $\text { (e.g. } \frac{1}{3} \div 2=\frac{1}{6} \text { ) }$ |


|  |  |  |  |  |  |  | Find simple percentages of amounts Solve problems involving fractions <br> Solve problems which require answers to be rounded to specified degrees of accuracy <br> Solve problems involving the calculation of percentages (e.g. of measures and such as $15 \%$ of 260 ) and the use of percentages for comparison |
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|  |  |  |  |  |  | I | Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication/division facts <br> Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples <br> Solve problems involving similar shapes where the scale factor is known or can be found |
| Algebra | EYFS-Skills-and-Progression-Ma 2023-006.pdf (moorsideacademy.co.uk) |  |  |  |  |  | Use simple formulae <br> Generate and describe linear number sequences <br> Express missing number problems algebraically <br> Find pairs of numbers that satisfy an equation with two unknowns <br> Enumerate possibilities of combinations of two variables |

