## EFFECT/VE MATHS Year 5 mathematics curriculum overview




|  | Block 3 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Y5 | Place value (U3) |  | Calculation |  | Money and decimals(U2) | Length | Mass and volume |  | Patterns and relationships | School to determine focus |  |  |

The yearly overview is a broad guide to suggested coverage over the course of the academic year.
There are 39 school weeks, one week taken for INSET, leaving 38 . Two of the 38 are generally taken up with trips, sports days, concerts and so on, leaving 36 . The three 'blocks' are each 12 weeks long. Clearly the 12 weeks don't map directly to terms, they are not intended to. Where the table header has been highlighted in blue, this indicates that planning will be provided by Effective Maths. Please see the publication dates (on website) for details of when resources will be online.

## Remembering content and making connections - Education Inspection Framework

In the 2023/24 block overviews that follow, the intention is to provide extremely clear signposting to the quizzes designed to support children in remembering the key content they have been taught. And, through the RTP ${ }^{1}$ focuses, integrate knowledge into larger concepts. Teachers and leaders need to use assessment well, for example to help children embed and use knowledge fluently or to check understanding and inform teaching. But they also need to do this in a way that does not create unnecessary burdens for staff or children. The quizzes are ideal for this purpose. (These points - remembering key content, integrating knowledge and not creating burdens - are directly linked to bullet points 3 and 4 in the 'implementation' section of the current Education Inspection Framework.)
The RTP quiz focuses are linked to what the DfE describe as 'the most important knowledge and understanding within each year group'. These criteria very often require children to have command of a wider domain of knowledge than the mathsquiz.net quizzes do. The quizzes on mathsquiz.net deliberately take smaller steps. The aim of both is to provide teachers and leaders with several ways of supporting children's ongoing progress. For example, through sharing links for mathsquiz.net quizzes with parents/carers (so children continue to practise a core skill such as knowing the $8 \times$ table) and then following up a child's work at home with a quiz session in school to ascertain progress. The RTP quiz focuses are designed to be mini-assessments carried out in school. Taken together, the quizzes and the paper-based end of unit assessments, provide schools with a range of simple strategies to assess the planned/intended curriculum, as opposed to using generic assessments not linked to the curriculum. In particular, the quizzes have the added advantage of being self-marking, easy to repeat and can be shared with parents/carers to support children' learning at home.

## Notes

The quizzes in red are being written for 2022/23 and will be online a few weeks before they are first required.

|  | Block 1 | Block 2 | Block 3 |
| :---: | :---: | :---: | :---: |
| Number of quizzes | 11 | 9 | 8 |
| Number of RTP quizzes | 6 | 5 | 3 | Some RTP focuses are not best assessed by electronic means. For Y5 these are 5MD-3 and 5MD-4 (multiplying and dividing numbers with up to 4 digits by 1-digit numbers).

${ }^{1}$ RTP Ready to Progress

|  | Block 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 1 2 | 3 3 4 | 5 6 | 7 | 8 9 9 | 10 | 11 12 |
| Y5 | Place value （U1） | Addition and subtraction <br> （U1） | Multiplication and division （U1） | Time | Fractions <br> （U1） | Multiplication | Geometry |
|  | ［1］Reading／writing numbers to 400,000 in numerals <br> ［2］Reading／writing numbers to 400,000 in words <br> ［3］Counting in tens and hundreds <br> ［4］Counting in tens， hundreds and thousands <br> ［5］Identifying and representing numbers ※MQ <br> ［6］Comparing and ordering numbers <br> ［7］Rounding to nearest 10 and 100 <br> ［8］Rounding to nearest 10 ， 100，1，000 and 10，000 MQ | ［1］Facts for 1 with decimal numbers to 1 dp and associated problem solving MQ <br> ［2］Facts for 1 and 10 with decimal numbers to 1 dp and associated problem solving <br> ［3］Complements for 1，000 and related facts <br> ［4］Mental calculation Making next／previous ten； near doubles 泫MQ <br> ［5］Calculation strategies Left to right addition；number line；partitioning the minuend <br> ［6］Estimation <br> ［7］Add numbers with more than 4－digits（with exchanging） <br> ［8］Subtract numbers with more than 4－digits（with exchanging） <br> ［9］Addition reasoning <br> ［10］Subtraction reasoning － FQQ | ［1］ $9 \times$ table（revision） <br> ［2］Reasoning about multiplication <br> ［3］Factors MQ <br> ［4］Understanding division and recalling division facts － <br> ［5］Division problems安MQ <br> ［6］Multiplication arithmagons <br> ［7］Common factors and common multiples － <br> ［8］Prime numbers <br> ［8］Square numbers | ［1］Solving problems <br> ［2］ <br> Converting between units of time MQ <br> ［3］Reading timetables MQ <br> ［4］Solving problems | ［1］Counting in thirds and ninths <br> ［2］Find non－unit fractions of quantities <br> 这RTP 5F－1 <br> ［3］Equivalent fractions RTP 5F－2 <br> ［4］Comparing and ordering fractions［a］ <br> ［5］Comparing and ordering fractions［b］ <br> ©MQ <br> Quiz linked to［3］－［4］： Comparing fractions <br> ［6］Improper fractions and mixed numbers［a］ <br> ［7］Improper fractions and mixed numbers［b］ <br> ［8］Recognising hundredths and linking to tenths and other fractions | ［1］Revision of unit 1 ： reasoning， factors and multiples <br> ［2］ <br> Multiplying <br> by 10 and <br> 100 <br> ［3］ <br> Multiplying and dividing <br> by 10,100 <br> and 1，000 <br> RTP <br> 5MD－1 $\leftarrow$ <br> ［4］ <br> Multiplying 4－ <br> digit <br> numbers | ［1］Angles <br> ［2］Angles <br> ［3］Angles <br> ［4］Angles <br> ［5］Quadriaterals <br> ［6］Angles in quadrilaterals <br> RTP 5G－1 <br> ［7］Drawing shapes <br> ［8］Coordinates <br> ［9］Coordinates－translation and reflection |
| ＊indicates a quiz linked to the content of the lesson／s． MQ means the quiz is accessible via mathsquiz．org |  |  | RRTP means it is a Ready to Progress quiz．Where a RTP quiz also has a backward arrow symbol，$\leftarrow$ ，this is to indicate that the RTP focus also encompasses key content from earlier lessons：see RTP page on main website for details． |  |  |  |  |


|  | Block 2 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 2 | 3 3 4 | 4 5 6 | 6 7 7 | 9 | 10 | 11 12 |
| Y5 | Money and decimals （U1） | Place value （U2） | Addition and subtraction （U2） | Multiplication and division （U3） | Fractions （U2） | ages | Statistics |
|  | ［1］Tenths－revision <br> ［2］Hundredths，halves and quarters－revision RTP 5NPV－1 <br> ［3］Rounding and comparing－revision <br> ［4］Decimal numbers as fractions 涼RTP 5F－3 <br> ［5］Decimal equivalents of thousandths <br> ［6］Rounding decimals <br> ［7］Comparing and ordering to two decimal places \＄RTP 5NPV－3 <br> ［8］Comparing and ordering to three decimal places <br> 交MQ Y5 quiz covers： Decimal equivalents for tenths， fifths，quarters，halves and thousandths；rounding decimals； comparing and ordering decimals | ［1］Reading and writing numbers to 700，000 <br> ［2］Counting in steps of 10 with numbers $>400,000$ <br> ［3］Counting in steps of 10 and 100 with numbers＞400，000 <br> ［4］Counting in steps of 10,100 and 1，000 with numbers ＞400，000 <br> ［5］Reading scales with $2,4,5$ or 10 intervals WRTP 5NPV－4 $\leftarrow$ <br> ［6］Ordering and comparing numbers to 700，000 <br> ［7］Negative numbers 洨 MQ | ［1］Addition and subtraction with decimal numbers to two decimal places（facts for one and related facts） WMQ <br> ［2］Problems with decimal numbers to two decimal places <br> ［3］Adding lots of numbers <br> ［4］Methods for addition <br> ［5］Methods for subtraction MQ <br> ［6］Population data problems <br> ［7］Solving problems <br> ［8］Solving problems | ［1］Square numbers （revision）洨MQ <br> ［2］Revision of unit 2 <br> ［3］ $6 \times$ table and related facts <br> ［4］Scaling multiplication and division facts <br> RTP 5NF－2 $\leftarrow$ <br> ［5］Multiplying 2－digit numbers by 2－digit numbers （open arrays and grid method） <br> ［6］Multiplying 2－digit numbers by 2－digit numbers （grid method and expanded column method）交MQ <br> ［7］Investigating the multiplication square（more practice with multiplying 2－ digit numbers by 2 －digit numbers） <br> ［8］Dividing numbers with up to 4 digits by 8 <br> ［9］Dividing numbers with up to 4 digits <br> ［10］Cube numbers <br> ［11］Volume of solid shapes， cubes and cuboids | ［1］Addition of related fractions <br> ［2］Addition of related fractions （quarters，eighths， halves and sixteenths） <br> ［3］Addition of related fractions （thirds，sixths and twelfths；fifths， tenths and twentieths） <br> ［4］Subtraction of related fractions <br> ［5］Subtraction of related fractions <br> ［6］Multiplying proper fractions by whole numbers <br> ［7］Multiplying mixed numbers by whole numbers <br> － $\mathrm{F} M \mathrm{Q}$ <br> Adding，subtracting and multiplying fractions | Percentage equivalents $(1 / 2,1 / 4$ and $3 / 4)$ $[2]$ More percentage equivalents $(10$ ths， 5 ths and 20ths） Pr－MQ $[3]$ Applying knowledge of fraction， decimal and percentage equivalents $[4]$ Word problems involving converting fractions to percentages $[5] ~ F i n d i n g ~$ percentages of quantities | ［1］Representing the same data in different ways <br> ［2］Venn diagrams with three sets <br> ［3］Interpreting tables <br> ［4］Line graphs（a） <br> ［5］Line graphs（b） <br> ［6］Pie charts（a） <br> ［7］Pie charts（b） <br> ［8］Representing the same data in different ways <br> Sorting diagrams；tables |
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| Y5 | Place value (U3) | Calculation | Money and decimals(U2) | Length | Mass and volume | Patterns and relationships | School to determine focus |  |  |
|  | [1] Reading and writing numbers to 1,000,000 <br> [2] Counting forwards and backwards in steps of powers of 10 <br> [3] Making numbers in different ways <br> [4] Partitioning in different ways [a] MQ <br> [5] Partitioning in different ways [b] <br> RTP 5NPV-2 <br> [6] Roman numerals to 500 <br> [7] Roman numerals to 1,000 <br> [8] Roman numerals for years | [1] Addition strategies <br> [2] Subtraction strategies <br> [3] Word problems MQ <br> [4] Solving problems with the bar model (a) <br> [5] Solving problems with the bar model (b) <br> [6] Multiplication - using known facts <br> [7] Multiplying 3- and 4-digit numbers by 2-digit numbers <br> [8] Division (revision) Division methods; related facts; remainders ${ }^{2} \mathrm{MQ}$ <br> [9] Division problems WMQ | [1] <br> Calculating amounts of money <br> [2] Solving problems about money <br> [3] Adding decimal numbers <br> [4] <br> Subtracting decimal numbers <br> [5] Solving problems involving decimals <br> MQ <br> Solving problems involving money | [1] Conversion of units of length <br> [2] <br> Converting from kilometres and metres家MQ <br> [3] Perimeter of rectilinear shapes <br> [4] Area <br> [5] Area and perimeter problems RTP 5G-2 | [1] Reading different scales <br> [2] Converting from kilograms to grams and from grams to kilograms <br> [3] Imperial/metric conversion for mass <br> [4] Converting from litres to millilitres and from millilitres to litres <br> RTP 5NPV-5 $\leftarrow$ <br> [5] Solving problems about volume <br> [6] Imperial/metric conversion for volume | [1] Number sequences <br> [2] Stick patterns <br> [3] Tile patterns <br> [4] Stairs on the number grid (a) <br> [5] Stairs on the number grid (b) | If time exists, it is suggested it is used to revisit the Ready to Progress focuses. |  |  |

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