

Wk Progression Focus

21 **Addition and subtraction**
Week 21 focuses on securing understanding of addition and subtraction and rehearsing sound mental strategies, extending to adding and subtracting fractions.

Weekly Summary

Add 3-digit and 1-digit numbers mentally, using number facts; subtract 1-digit numbers from 3-digit numbers mentally using number facts; add and subtract multiples of 10 by counting on and back in 10s and using number facts to cross 100s; compare and order fractions with the same denominator; begin to recognise equivalences of $\frac{1}{2}$; add and subtract fractions with the same denominator

Strands

MAS Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra; **FRP** Fractions, ratio and proportion

Objectives

- **MAS.38** Add and subtract 1-digit to and from 3-digit numbers
- **MAS.41** Add multiples of 10 and 100 to 3-digit numbers
- **MAS.42** Subtract multiples of 10 and 100 from 3-digit numbers
- **PRA.44** Spot patterns and relationships and make predictions
- **PRA.47** Explain methods using appropriate mathematical language
- **FRP.34** Begin to understand equivalence by placing fractions on a number line
- **FRP.35** Compare fractions using number lines and fraction strips
- **FRP.32** Add fractions with the same denominator to make one whole
- **FRP.44** Add and subtract fractions with the same denominator
- **MMD.26** Count in 2s and recall multiplication and division facts for the $\times 2$ table
- **MMD.27** Count in 5s and recall multiplication and division facts for the $\times 5$

22 **Multiplication and division**
Weeks 22 and 23 focus on developing understanding and skills in multiplication and division, including using tables facts to solve scaling problems, multiplications using the grid method, and divisions using chunking.

Use function machines to multiply by 2, 3, 4, 5 and 8 and understand the inverse; use scaling to multiply heights and weights by 2, 4, 8, 5 and 10; use known facts to multiply multiples of 10 by 2, 3, 4 and 5; multiply numbers between 10 and 30 by 3, 4 and 5 using the grid method; multiply 2-digit numbers by 3, 4, 5 and 8 using the grid method

MMD Mental multiplication and division; **PRA** Problem solving, reasoning and algebra; **WMD** Written multiplication and division



23 **Multiplication and division**

Weeks 22 and 23 focus on developing understanding and skills in multiplication and division, including using tables facts to solve scaling problems, multiplications using the grid method, and divisions using chunking.

Divide without remainders, just beyond the 12th multiple; division using chunking, with remainders; use the grid method to multiply 2-digit numbers by 3, 4, 5 and 8; begin to estimate products

MMD Mental multiplication and division; **WMD** Written multiplication and division

table

- **MMD.30** Recall multiplication and division facts for the $\times 3$ table
- **MMD.31** Understand that multiplication is commutative and use it in mental calculations
- **MMD.35** Understand multiplication as repeated addition and as scaling
- **MMD.38** Learn to divide with remainders
- **MMD.42** Multiply multiples of 10 by 1-digit numbers
- **PRA.48** Solve problems involving multiplication and division, including missing number problems
- **WMD.43** Use known tables and place value to multiply 2-digit by 1-digit numbers with the grid method
- **WMD.55** Solve problems involving multiplying and adding using the distributive law to multiply 2-digit numbers by 1-digit numbers (partitioning)
- **MMD.44** Divide mentally numbers just beyond the tables by subtracting the multiple of 10 (no remainders)
- **WMD.43** Use known tables and place value to multiply 2-digit by 1-digit numbers with the grid method
- **WMD.55** Solve problems involving multiplying and

24 **Statistics and data; weight**

Week 24 focuses on drawing and interpreting pictograms and bar graphs with different scales, and on using these to record and analyse data in the context of measuring weights.

Draw and interpret bar charts and pictograms where one square/symbol represents two units; compare and measure weights in multiples of 100g; know how many grams are in a kilogram; estimate and weigh objects to the nearest 100g; draw and interpret bar charts where one square represents one hundred units

STA Statistics; **PRA** Problem solving, reasoning and algebra; **MEA** Measurement

adding using the distributive law to multiply 2-digit numbers by 1-digit numbers (partitioning)

- **STA.34** Interpret and complete pictograms where 1 symbol represents 2 items
- **STA.41** Ask and answer questions about the data represented in pictograms and block graphs
- **STA.30** Collect and organise data in tally charts
- **STA.35** Interpret and complete block graphs where 1 block represents 2 items
- **STA.49** Interpret and present data in bar charts where 1 division represents 2 units
- **STA.51** Work out how many more/fewer using data displayed in scaled bar charts, pictograms and tables
- **STA.52** Draw and interpret bar charts where 1 division represents 100 units
- **PRA.43** Apply reasoning skills to problems
- **MEA.30** Choose and use appropriate standard units to measure weights (mass)
- **MEA.32** Solve simple problems by comparing and ordering lengths, weights (masses),



25 **Addition and subtraction**
Weeks 25, 26 and 27 focus on mental and written addition and subtraction, including mental strategies, column addition, subtracting by counting up, and choosing appropriate methods to solve problems.

Add 3-digit and 2-digit numbers using mental strategies; add two 3-digit numbers using mental strategies or by using column addition; use reasoning, trial and improvement to solve problems involving more complex addition

MAS Mental addition and subtraction; **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra

capacities and record the results using $<$, $>$, and $=$

- **MEA.58** Begin to convert between different units of measure
- **MAS.45** Add mentally 2-digit to 3-digit numbers by partitioning or counting on
- **MAS.46** Mentally add two friendly 3-digit numbers
- **WAS.43** Use compact column addition to add pairs of 3-digit numbers with a total < 1000
- **WAS.41** Use expanded column addition to add pairs of 3-digit numbers
- **WAS.44** Use column addition to add three 3-digit numbers with a total < 1000
- **PRA.43** Apply reasoning skills to problems
- **PRA.49** Use trial and improvement
- **PRA.50** Solve problems involving more complex addition and subtraction, including missing number problems

