# Arithmetic Sessions

# Long Term Plan

This document has been created to supplement arithmetic fluency alongside our White Rose Maths scheme.

**Key Stage 1: 1 Arithmetic session per week (20 mins)**

Session 1= Teach and Practice the objective

**Key Stage 2: 1 Arithmetic session per week (20 mins)**

Session 1= Teach and Practice the objective

Children in Year 1 to record work on whiteboards

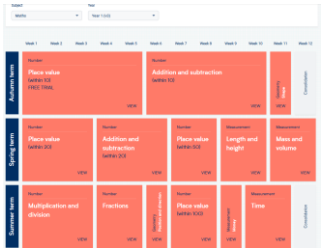
Children in Years 2 – 6 to record work in yellow books

See the example of these sessions in the One Drive

**Rationale**

Teachers have reported that children's reasoning is strong but fluency across the school is not as accurate or fast as we would like it to be. Alongside this, we aim to achieve better results in the Year 4 Times Table Check. Below is the organisation of arithmetic sessions for each year group, these are largely based around mastering the four operations (key stage 2 including some fractions work). Objectives have been largely taken to match WRH maths lessons already taught.

# Year 1



## Autumn Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| **Place Value (Within 10)** | Week 1- To sort objects |
| | Week 2- To count objects |
| | Week 3- To count on from any number |
| | Week 4- To count one more |
| | Week 5- To count backwards within 10 |
| **Addition and Subtraction (Within 10)** | Week 6- To count one less |
| | Week 7- To explain less than, greater than and equal to |
| | Week 8- To understand part-whole models |
| | Week 9- To understand fact families and addition facts |
| | Week 10- To learn number bonds to 10 |
| **Geometry - Shape** | Week 11- To learn number bonds to 10 |
| **Consolidation** | Week 12- To add two single digit numbers together |

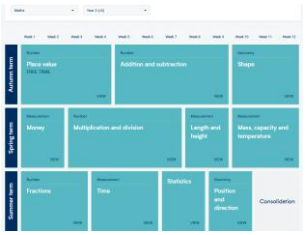
## Spring Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| **Place Value (Within 20)** | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 3- To add two single digit numbers together |
| **Addition and Subtraction (Within 20)** | Week 4- To subtract from a single digit number |
| | Week 5- To subtract from a single digit number |
| | Week 6- To subtract from a two digit number (11-20) |
| **Place Value (Within 50)** | Week 7- To add three single digit numbers to 20 |
| | Week 8- To use doubles |
| **Length and Height** | Week 9- To use near doubles |
| | Week 10- To complete missing number problems (+ and – to 20) |
| **Mass and Volume** | Week 11- To estimate on a number line to 50 |
| | Week 12- To count in 2s |

## Summer Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| **Multiplication and Division** | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 3- To learn number bonds to 10 |
| **Fractions** | Week 4- To count in 10s |
| | Week 5- To count in 5s |
| **Geometry- Position and Direction** | Week 6- To add two single digit numbers (within 50) |
| **Place Value (Within 100)** | Week 7- To subtract two single digit numbers (Within 50) |
| | Week 8- To use doubles |
| **Measurement- Money** | Week 9- To make equal groups (grouping) |
| **Measurement- Time** | Week 10- To make equal groups (sharing) |
| | Week 11- To count, read and write numbers to 100 |
| **Consolidation** | Week 12- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |

# Year 2



## Autumn Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Place Value | Week 1- To add single digit numbers |
| | Week 2- To add a single digit numbers to a two digit number |
| | Week 3- To subtract a single digit number from a single digit number |
| | Week 4- To subtract a single digit number from a two digit number |
| Addition and Subtraction | Week 5- To order numbers up to 100 |
| | Week 6- To revise number bonds to 10 |
| | Week 7- To create number bonds to 100 (using tens) |
| | Week 8- To add 1s to a number |
| | Week 9- To subtract 1s from a number |
| Geometry - Shape | Week 10- To add three 1 digit numbers |
| | Week 11- To calculate 10 more and 10 less |
| | Week 12- To add two 2 digit numbers (not across a 10) |

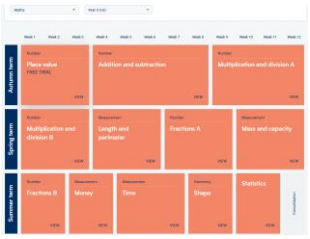
## Spring Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Money | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| Multiplication and Division | Week 3- To add two 2 digit numbers (across a 10) |
| | Week 4- To subtract two 2 digit numbers (not across a 10) |
| | Week 5- To subtract two 2 digit numbers (across a 10) |
| | Week 6- To complete mixed addition and subtraction calculations |
| | Week 7- To complete missing number addition calculations |
| Length and Height | Week 8- To complete missing number subtraction calculations |
| | Week 9- To revise the 2x table |
| Mass, Capacity and Temperature | Week 10- To revise the 5x table |
| | Week 11- To revise the 10x table |
| | Week 12- To double numbers |

## Summer Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Fractions | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 3- To halve numbers |
| Time | Week 4- To multiply by adding equal groups (1) |
| | Week 5- To multiply by adding equal groups (1) |
| | Week 6- To make equal groups (grouping) |
| Statistics | Week 7- To make equal groups (sharing) |
| | Week 8- To divide by 2 |
| Position and Direction | Week 9- To divide by 10 |
| | Week 10- To divide by 5 |
| Consolidation | Week 11- To find a quarter of a given number (fractions) |
| | Week 12- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |

# Year 3



## Autumn Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Place Value | Week 1- To add two numbers (within 100) |
| | Week 2- To subtract two numbers (within 100) |
| | Week 3- To represent numbers to 1,000 using place value counters |
| Addition and Subtraction | Week 4- To compare numbers to 1,000 |
| | Week 5- To count in 50s |
| | Week 6- To add 1s to a three-digit number |
| | Week 7- To add 10s to a three-digit number |
| | Week 8- To add 100s to a three-digit number |
| Multiplication and Division A | Week 9- To subtract 1s from a three-digit number |
| | Week 10- To subtract 10s from a three-digit number |
| | Week 11- To add two two-digit numbers |
| | Week 12- To add two three-digit numbers |

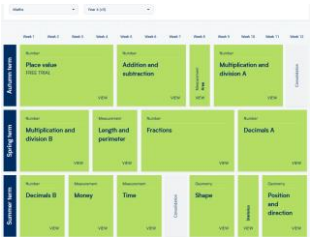
## Spring Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Multiplication and Division B | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 3- To add two and three-digit numbers together |
| Length and Perimeter | Week 4- To subtract two two-digit numbers |
| | Week 5- To subtract two three-digit numbers |
| | Week 6- To subtract a two-digit number from a three-digit number |
| Fractions A | Week 7- To complete missing number addition problems |
| | Week 8- To complete missing number subtraction problems |
| | Week 9- To multiply a 2-digit number by a 1-digit number (no exchange) |
| Mass and Capacity | Week 10- To multiply a 2-digit number by a 1-digit number (with exchange) |
| | Week 11- To divide a 2-digit number by a 1-digit number (no exchange) |
| | Week 12- To divide a 2-digit number by a 1-digit number (with remainders) |

## Summer Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Fractions B | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| Money | Week 3- To multiply a 2-digit number by a 1-digit number (mixed) |
| | Week 4- To divide a 2-digit number by a 1-digit number (mixed) |
| Time | Week 5- To calculate missing number multiplication calculations |
| | Week 6- To calculate missing number division calculations |
| | Week 7- To add and subtract two and three-digit numbers |
| Shape | Week 8- To add fractions |
| | Week 9- To subtract fractions |
| Statistics | Week 10- To add, subtract, multiply and divide a range of numbers (1) |
| | Week 11- To add, subtract, multiply and divide a range of numbers (2) |
| Consolidation | Week 12- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |

# Year 4



## Autumn Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Place Value | Week 1- To revisit number bonds to 10 and 100 |
| | Week 2- To add a single digit number to a 2-digit number |
| | Week 3- To add a 2-digit number to a 2-digit number |
| | Week 4- To subtract a single digit number from a 2-digit number |
| Addition and Subtraction | Week 5- To subtract a two-digit number from a 2-digit number |
| | Week 6- To order numbers to 10,000 |
| | Week 7- To revise Roman Numerals to 100 |
| Measurement- Area | Week 8- To round to the nearest 10 |
| Multiplication and Division A | Week 9- To round to the nearest 100 |
| | Week 10- To round to the nearest 1,000 |
| | Week 11- To add 1, 10, 100 and 1,000 to a number |
| Consolidation | Week 12- To subtract 1, 10, 100 and 1,000 from a number |

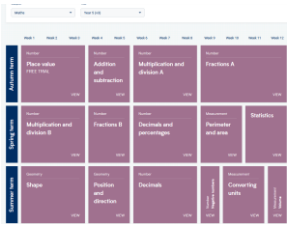
## Spring Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Multiplication and Division B | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 3- To add two 4-digit numbers together |
| Length and Perimeter | Week 4- To add three 1-4-digit numbers together |
| | Week 5- To subtract two 4-digit numbers from each other |
| Fractions A | Week 6- To complete missing number addition problems |
| | Week 7- To complete missing number subtraction problems |
| | Week 8- To complete factor pairs for 2-digit numbers |
| | Week 9- To multiply by 10 |
| Decimals A | Week 10- To multiply by 100 |
| | Week 11- To divide by 10 |
| | Week 12- To divide by 100 |

## Summer Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Decimals B | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| Money | Week 3- To multiply a 2-digit number by a 1-digit number |
| | Week 4- To multiply a 3-digit number by a 1-digit number |
| Time | Week 5- To divide a 2-digit number by a 1-digit number |
| | Week 6- To divide a 3-digit number by a 1-digit number |
| Consolidation | Week 7- To add fractions |
| Shape | Week 8- To subtract fractions |
| | Week 9- To find fractions of a number |
| Statistics | Week 10- To add, subtract, multiply and divide a range of numbers (1) |
| Position and Direction | Week 11- To add, subtract, multiply and divide a range of numbers (2) |
| | Week 12- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |

# Year 5



## Autumn Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| **Place Value** | Week 1- To revise number bonds to 10, 100 and 1,000 |
| | Week 2- To revise Roman Numerals to 1,000 |
| | Week 3- To multiply and divide by 10 |
| **Addition and Subtraction** | Week 4- To order numbers to 1,000,000 |
| | Week 5- To round to the nearest 10 |
| **Multiplication and Division A** | Week 6- To round to the nearest 100 |
| | Week 7- To round to the nearest 1,000 |
| | Week 8- To add whole numbers with more than 4 digits |
| **Fractions A** | Week 9- To subtract whole numbers with more than 4 digits |
| | Week 10- To add and subtract a range of numbers |
| | Week 11- To use rounding to check answers |
| | Week 12- To revise prime numbers and factors |

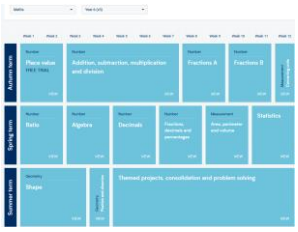
## Spring Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| **Multiplication and Division B** | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 3- To revise square and cubed numbers |
| **Fractions B** | Week 4- To multiply by 10, 100 and 1,000 |
| | Week 5- To divide by 10, 100 and 1,000 |
| **Decimals and Percentages** | Week 6- To multiply up to a 4-digit number by a 1-digit number |
| | Week 7- To multiply a 2-digit number by a 2-digit number |
| | Week 8- To multiply a 3-digit number by a 2-digit number |
| **Perimeter and Area** | Week 9- To multiply a 4-digit number by a 2-digit number |
| | Week 10- To divide a 3-digit number by a 1-digit number |
| **Statistics** | Week 11- To divide a 4-digit number by a 1-digit number |
| | Week 12- To multiply a unit fraction by an integer |

## Summer Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| **Shape** | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 3- To multiply a non-unit fraction by an integer |
| **Position and Direction** | Week 4- To multiply a mixed number by an integer |
| | Week 5- To calculate a fraction of an amount |
| **Decimals** | Week 6- To round decimals to the nearest whole number |
| | Week 7- To round decimals to one decimal place |
| | Week 8- To order decimals with up to three decimal places |
| **Negative Numbers** | Week 9- To calculate equivalent decimals, fractions and percentages |
| **Measurement- Converting Units** | Week 10- To add, subtract, multiply and divide a range of numbers (1) |
| | Week 11- To add, subtract, multiply and divide a range of numbers (2) |
| **Measurement- Volume** | Week 12- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |

# Year 6



## Autumn Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Place Value | Week 1- To order numbers up to 1,000,000 |
| | Week 2- To multiply a range of numbers by 10, 100 and 1,000 |
| Addition, Subtraction, Multiplication and Division | Week 3- To divide a range of numbers by 10, 100 and 1,000 |
| | Week 4- To add and subtract involving negative numbers |
| | Week 5- To add integers |
| | Week 6- To subtract integers |
| | Week 7- To revise common factors |
| Fractions A | Week 8- To revise common multiples |
| | Week 9- To revise prime numbers to 100 |
| Fractions B | Week 10- To revise cube and square numbers |
| | Week 11- To multiply up to a 4-digit number by a 1-digit number |
| Measurement- Converting Units | Week 12- To multiply up to a 4-digit number by a 2-digit number |

## Spring Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Ratio | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| Algebra | Week 3- To round numbers to the nearest 10, 100 and 1,000 |
| | Week 4- To divide up to 4 digits by a 1-digit number |
| Decimals | Week 5- To divide up to 4 digits by a 2-digit number |
| | Week 6- To use common multiples to simplify fractions |
| Fractions, Decimals and Percentages | Week 7- To divide proper fractions by whole numbers |
| | Week 8- To add fractions with different denominators and mixed numbers |
| Area, Perimeter and Volume | Week 9- To subtract fractions with different denominators and mixed numbers |
| | Week 10- To multiply simple pairs of proper fractions |
| Statistics | Week 11- To multiply 1-digit numbers (up to 2 d.p) by whole numbers |
| | Week 12- To calculate a fraction of an amount |

## Summer Term

| White Rose Maths Unit | Academic Week and Objective |
|---|---|
| Shape | Week 1- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 2- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 3- To round numbers to the nearest whole |
| Position and Direction | Week 4- To add, subtract, multiply and divide a range of numbers (1) |
| Themed Projects, Consolidation and Problem Solving | Week 5- To add, subtract, multiply and divide a range of numbers (2) |
| | Week 6- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 7- AFL BASED ON GAPS ANALYSIS FROM ASSESSMENTS |
| | Week 8- Ratio/Algebra/Arithmetic to support any maths projects |
| | Week 9- Ratio/Algebra/Arithmetic to support any maths projects |
| | Week 10- Ratio/Algebra/Arithmetic to support any maths projects |
| | Week 11- Ratio/Algebra/Arithmetic to support any maths projects |
| | Week 12- Ratio/Algebra/Arithmetic to support any maths projects |