Holymead Primary

Nurture Inspire Achieve

Maths Curriculum Overview 2022

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GOLD – RIGHTS RESPECTING

At Holymead Primary School we want our pupils to achieve high quality outcomes, through a broad, balanced, inspiring (creative, fun and exciting) curriculum.

Our focus is on:

- Keeping children safe
- Good quality teaching focusing on skills and knowledge
- A well planned, coherent, varied and interesting curriculum
- High quality outcomes

We have identified, using a range of data, 3 key factors that underpin and shape our School Curriculum.

- Promoting Pupils' Personal Responsibility
- Developing Pupils' Life Skills
- Increasing Pupils' Cultural Capital

Maths Curriculum Overview

National Curriculum Strands

Fluency	Reasoning	Problem Solving
• become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately	• reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language	• can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Topics in the National Curriculum (all year groups) – see skills sheets & maths across the curriculum

Number – number and place value	Number – addition and subtraction	Number – multiplication and division	Number – fractions (including percentages and decimals from Y5)	Measurement	Geometry – properties of shapes	Geometry – position and direction	Statistics
Additional topics in Y5: Percentages and Decimals				*Additional Topics in Y6: Ratio and Proportion, Algebra*			

Multiplication Tables Expectations

YR	Y1	Y2	Y3	Y4	Y5	Y6
Pupils solve problems, including doubling, halving and sharing.	Counting in 2,5,10	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, and counting in 3s.	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Recall multiplication and division facts for multiplication tables up to 12 × 12 [Recall and use 6,7,9,12 multiplication tables]	Pupils use and understand the terms factor, multiple and prime, square and cube numbers.	Pupils continue to use all the multiplication tables to calculate mathematical statements in order to maintain their fluency.
Events						
Problem Solver of the Term Number Day	Problem Solver of the Term Number Day	Problem Solver of the Term Number Day TT Rockstars Contest	Problem Solver of the Term Number Day TT Rockstars Contest	Problem Solver of the Term Number Day TT Rockstars Contest Year 4 Maths Workshop with Cluster	Problem Solver of the Term Number Day TT Rockstars Contest Year 5 Bristol Grammar School Maths Challenge	Problem Solver of the Term Number Day TT Rockstars Contest Year 6 Red Maids' High School Maths Challenge event

EYFS Maths Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Week 1	Basline	Ways to make 5 using objects and Numicon	Measuring time	Take away	Ordinal numbers	Money
Week 2		Capacity	Height	Addition and takeaway Which operation should you use?	Weight	Building numbers beyond 10
Week 3		Adding one more	Estimating	Doubling	Sharing	Building numbers beyond 10
Week 4	Counting objects 1:1	Addition	Addition	Counting on on a number line	Halving	Counting patterns
Week 5	Counting objects 1:1 Matching amounts to numerals	Positional language	Length	Maths in real life day	Counting back	Counting patterns
Week 6	Length	4 sided shapes	3D shape	Counting on using objects		Even and odd
Week 7	2D shapes	Day and night	Repeating patterns			3D shape
Week 8	Repeating patterns					

Year 1 Maths Overview

Term 1	Number: Place Value, Comparing, Counting			Addition, Number Bonds and Subtraction			
Ongoing Skills	Counting backwards and forwards up to 100 One more and one less Number formation			Recall of single digit number facts, part part whole, number bonds to ten, number formation.			
Term 2	Subtraction	Geometry Shape	Consolidation / Shape	Assessment	Place Value (within 20)		
Ongoing Skills	Single digit number facts / part part whole Counting Backwards and Forwards			Counting backwards and forwards, One more and one less Counting in tens, money			
Term 3	Addition and Subtraction, Number Bonds, Consolidation			Place Value (within 50)			
Ongoing Skills	Counting forwards, counting backwards, recognising numbers and amounts, using Numicon, daily morning starters for fluency						
Term 4	Consolidation, Review & Counting in 2s	Length & Height	Weight and Volume	Consolidation (Place Value, Number facts)			
Ongoing Skills	Counting on and back, place value, number facts, counting in 10s, adding and subtracting						
Term 5	Multiplication and Division		Fractions				
Ongoing Skills	Place value, money, coin recognition, shape and basic properties, counting, number facts and missing number						
Term 6	Division	Money	Time	Place Value		Geometry	
Ongoing Skills	Counting on and back, place value, number facts, adding and subtracting, counting in 2s, 5s and 10s						

Year 2 Maths Overview

Term 1	**Place Value:** **Number Sense**	**Place Value:** **Number Bonds**	**Place Value: Adding Single Digits**	**PlaceValue: Partitioning**	**Addition & Subtraction:** **Multiples of 10**	**Addition & Subtraction:** **Single digits to two digits**	**Subtraction:** **Two digit from two digit**	
Ongoing Skills	**10 x table, Counting in steps of 2 5 and 10, Number facts and bonds to 10, bonds to 20 Doubles and halves**				**2 and 5 x tables, adding and subtracting multiples of 10**			
Term 2	**Addition & Subtraction: Recap**	**Fact families & derived facts**	**Money**	**Arithmetic Assessment &** **Money**	**Money**	**Multiplication & Division: Equal Groups**	**Multiplication & Division: Groups**	
Ongoing Skills	**Addition and Subtraction arithmetic, Place Value, 10 x table**				**2,5,10 times tables, counting in threes, division.**			
Term 3	**Multiplciation & Division: Recap groups**	**Multiplication & Division:** **Groups & Arrays**	**Multiplication & Division:** **Arrays**	**Multiplication & Division:** **Division**	**Number Bonds & Bridging**	**Fractions: Introduction**	**Fractions**	
Ongoing Skills	**Division using grouping / repeated addition / skip counting, place value, missing number problems, addition and subtraction of 2 digit numbers, bridging ten mentally**							
Term 4	**Review: Measure, turning, routes, scales**	**Time & Multiplication Word Problems**	**Addition and Subtraction Problems**	**Arithmetic Review and Assessment**	**Grouping/Sharing Problems, Two step problems, Number bonds**	**Review: Coins, change missing number problems**		
Ongoing Skills	**Arithemtic all 4 operations, fractions, reasoning / missing number problems**							
Term 5	**Review: Consolidation and Gaps**			**SATS Administration**				

Ongoing Skills	**Gaps identified from Term 4 assessments**					
Term 6	**Time**	**2D and 3D Shape**	**Money & Measure**	**Arithmetic Revision**	**Position and Direction**	
Ongoing Skills	**Mental calculation – four operations, Mental addition/subtraction, Number bonds** **Counting on to find difference, Multiplication tables: 2 5 and 10,counting in threes**					

Year 3 Maths Overview

Term 1	**Arithmetic Skills**		**Place Value, Ordering, Comparing, Rounding**			**Addition (mental, informal and formal method) Subtraction (counting on), routine problems, change**	
Ongoing Skills	**2x table sheet**	**5x table sheet**	**10x table sheet**	**Adding and subtracting single digits, missing numbers & values of digits**	**2, 5, 10x tables mixed**		**Column addition & subtraction, missing numbers & adding 3 numbers**
Term 2	**Multiplying and dividing by 10**	**Multiplication & Division (informal arrays, linked facts)**			**Assessments**	**Multiplication and Division (mental recall, problem solving)**	
Ongoing Skills	**Times tables 2, 5, 10, 3, 4, 8 & 11 Multiplying and dividing by 10 & 100 Mental Calculations subtraction and addition Formal addition and subtraction Missing numbers**				**Multiplying by multiples of 10 Multiplying by partitioning Times tables 2, 5, 10, 3, 4, 8 & 11**		
Term 3	**Multiplication and Division (mental recall, problem solving)**		**Measurements (money)**	**Statistics**		**Measurement (length and perimeter)**	
Ongoing Skills	**Dividing and multiplying by 10 & 100 Multiplying by multiples of 10**		**Adding and subtracting money Missing numbers – division Column addition and subtraction Times tables 2, 5, 10, 3, 4, 8 & 11**				
Term 4	**Fractions**				**Assessment**	**Multi-step problems**	
Ongoing Skills	**Adding and subtracting fractions with the same denominator 2 step addition and subtraction 2 step multiplication**				**Times tables 2, 5,10, 3, 4,8 & 11**		
Term 5	**Formal methods divison**		**Time**				
Ongoing Skills	**Equivalent calculations Equivalent fractions 2 step missing number problems – linked to dividing & multiplying by 10**			**Unit and non-unti fractions of ammounts Long division Equivalent calculations**			

Term 6	**Measurement (mass and capacity)**		**Assessment**	**Geometry (properties of shape)**	**Multiplication (formal methods)**	
Skills	**Adding fractions and whole numbers Multiplying by partitioning Fractions smaller and bigger than Decimals e.g. number between 36.0 and 37.0**			**Ordering fractions Fractions of ammounts Fractions bigger and smaller Decimals e.g. number between 36.0 and 37.0**		

Year 4 Maths Overview

Term 1	**Year 3 Revision** •Addition. •Subtraction. •Multiplication. •Division. •Mental Strategies. •Fractions. •Guided Problem Solving.		**Place Value** •Represent numbers using different representations. •Recognise the place value of digits. •Order and compare numbers beyond 1,000. •Round any number to the nearest 10, 100 or 1,000. •Find 1,000 more or less than a given number. •Count backwards through 0.		**Addition** •Add numbers with up to 4 digits using column addition. •Solve addition two-step problems in contexts. •Estimate and use inverse to check answers to calculations.		**Subtraction** •Subtract numbers with up to 4 digits using column addition. •Solve subtraction two-step problems in contexts. •Estimate and use inverse to check answers to calculations.
Arithmetic				•2 digit column addition and subtraction. • Missing number sentences • Mental calculations			•2 digit column addition and subtraction. • Missing number sentences • Mental calculations
X Tables	10 X Tables	5 X Tables	2 X Tables		3 X Tables	4 X Tables	8 X Tables
Term 2	**Multiplication** •Use known facts to multiply numbers mentally. •To multiply numbers by 0 and 1. •Multiply 3 numbers together. •Recognise and use factor pairs. •Multiply two-digit and three-digit numbers by a one-digit number. •Solve problems involving multiplying and adding, including integer scaling problems.			*Assessment Week*	**Division** •Use known facts to divide numbers mentally. •To divide numbers by 0. •To divide using the compact division method.		
Arithmetic	•Column addition and subtraction up to 4 digits. •Using the inverse to solve missing number problems. •Round any number to the nearest 10, 100 and 1000.				•Column multiplication. •Multiply numbers by 0 and 1. •Multiply 3 numbers together.		
X Tables	3 X Tables	4 X Tables	8 X Tables		11 X Tables	9 X Tables	6 X Tables
Term 3	**Fractions** •To understand and identify fractions. •Count up and down in tenths and hundredths. •Recognise and show families of common equivalent fractions. •Add and subtract fractions with the same denominator. •Solve problems to calculate quantities of amount.				**Time** •Solve problems involving converting units of time. •Read, write and convert time between analogue and digital 12- and 24-hour clocks.		

					•Solve problems involving calculating lengths of time.		
Arithmetic	•Compact division method. •Divide using mental strategies. •Using the inverse to solve missing number problems.				•Adding and subtracting fractions. •Fractions of amounts. •Round any numbe to the nearest 10, 100 and 1000.		
X Tables	11 X Tables	9 X Tables	6 X Tables	7 X Tables	7 X Tables	7 X Tables	
Term 4	**Decimals** •Recognise and write decimal equivalents of any number of tenths or hundredths. •Find the effect of dividing a one- or two-digit number by 10 and 100. •Round decimals with 1 decimal place to the nearest whole number. •Order and compare numbers with the same number of decimal places up to 2 decimal places.			*Assessment Week*	**Money** •Estimate, compare and calculate money in pounds and pence. •Solve simple money problems.	**Roman Numerals** •Read Roman numerals to 100 (I to C).	
Arithmetic	•Column addition and subtraction up to 4 digits. •Multiply 3 numbers together. •Compact division method.				•Multiplying and dividing by 10 and 100. •Rounding decimals. •Greater than and less than signs.		
X Tables	12 X Tables	12 X Tables	12 X Tables		Mixed Tables	Mixed Tables	
Term 5	**Measurement** •Estimate, compare and calculate different measures. •Convert between different units of measure. •Solve problems involving converting between different units of measure.			**Area and Perimeter** •Measure and calculate the perimeter of a rectilinear figure in cm and m. •Find the area of rectilinear shapes by counting squares.			
Arithmetic	•Adding and subtracting money. •Missing number sentences. •Fractions of amounts			•Multiplying and dividing by 10 and 100. •Multiply 3 numbers together. •Adding and subtracting fractions.			
X Tables	Mixed Tables	Mixed Tables	Mixed Tables	Mixed Tables	Mixed Tables		
Term 6	**Geometry – Position and Direction**		*Assessment Week*	**Geometry – Properties of shape** •Compare and classify geometric shapes.		**Statistics**	

	•Describe positions on a 2-D grid as coordinates in the first quadrant. •Describe movements between positions as translations. •Plot specified points and draw sides to complete a given polygon.			•Identify acute and obtuse angles and compare and order angles up to 2 right angles by size. •Identify lines of symmetry in 2-D shapes. •Complete a simple symmetric figure with respect to a specific line of symmetry.		•Interpret and present discrete and continuous data using appropriate graphical methods. •Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		
Arithmetic	•Rounding decimals. •Multiply by 1 and 0. •Greater than and less than signs.			•Adding and subtracting money. •Column multiplication. •Round any numbe to the nearest 10, 100 and 1000.				
X Tables	Mixed Tables	Mixed Tables		Mixed Tables	Mixed Tables	Mixed Tables	Mixed Tables	

Year 5 Maths Overview

Term 1	**Addition, Subtraction, multiplication, division, Mental strategies, Fractions** **Guided reasoning session (Y)**	**Place Value** Read and write numbers (1m) Value of digits Rounding Negative numbers		**Calculations** Addition, subtraction Formal, mental and estimation	**Multiplying and dividing by 10, 100 and 1000**
Skills	4x tables Arithmetic year 4 review 8x tables Addition/subtraction /place value				
Term 2	**Factors, multiples, prime, square and cube numbers**	**Multiplication** Mental, formal, problem solving	**Assessments**	**Division** Mental formal, problem solviing	
Skills	6x, 7x table Place value Addition and subtraction Multiplying by 10/100/1000				
Term 3	**Fractions, decimals and percentages** Simplifying, compare and order, add and subtract, multiple and divide, improper and mixed numbers, fractions of a number, percentage of a number, equilivalent				
Skills	9x,12x tables X/10,100,1000 Arithmetic Negative numbers Mixed times tables				
Term 4	**Shape and geometry** Area and perimeter, 2D and 3D properties, nets, angles	**Assessments**	**Time**		
Skills	Addition and subtraction of fractions Equilivalent fractions FDP Mixed times tables				
Term 5	**Statistics** Reading and constructing graphs including: bar charts, line graphs and pictograms with different scales	**Area and perimeter** **Converting measure**	**Shape** tranlation, reflection, coordinates rotation		

Skills	Mixed times tables Multiplying and dividing fractions Place value Multiplying by 10,100 and 1000				
Term 6	Caluclation and problem solving 4 operations	**Assessment**	**Ratio and proportion** **Scaling problems**		
Skills	Mixed times tables Multiplying and dividing fractions Place value Multiplying by 10,100 and 1000				

Year 6 Maths Overview

Term 1	**Calculations** Addition, Subtraction, multiplication, division	**Place Value** Read and write numbers (10m) Value of digits Rounding Negative numbers			**Decimals** comparing and ordering rounding calculations	**Assessments** Arithmetic and problem solving tests review sessions	**Calculations** Review sessions Missing number problems	
Skills	**Mixed times table sheet**	**Arithmetic** Column addition and subtraction	**Arithmetic** Column addition and subtraction	**Arithmetic** multiplication and division	**Arithmetic** mental strategies	**Arithmetic** multiplying and dividing by 10, 100 and 1000	**Review of skills**	
Term 2	**Calculations** Multiplication, division, factors, multiples, prime numbers	**Fractions, decimals and percentages** Simplifying, compare and order, add and subtract, multiple and divide, improper and mixed numbers, % and fractions of amounts, equilivalent				**Assessments** Arithmetic test Problem solving test review sessions	**FDP**	
Skills	**Mixed Times tables**	**Arithmetic** Short division, addition and subtraction			**Mixed Times tables**		**Arithmetic** Prime, factors, multiples	
Term 3	**Ratio and Proportion** Scale factors, ratio problems,links to percentages and fractions	**Statistics and measurement** Time, time tables, graphs, Converting measure, Mean			**Assessments** Arithmetic test Problem solving test review sessions	**Stats**		
Skills	**Arithmetic** FDP conversion X/10,100,1000	**Arithmetic** Negative numbers			**Mixed times tables**			
Term 4	**Algebra** Simple formulae, linear sequences, missing numbers, two variables,	**Assessments** Arithmetic test Problem solving test review sessions	**Camp**		**Shape and geometry** Area and perimeter, 2D and 3D properties, nets, translation, reflection, coordinates			
Skills	**Arithmetic** Long division and long multiplication		**Camp**		**Arithmetic** Addition and subtraction of fractions Equilivalent fractions			
Term 5	**Statistics and Measure** Converting measure, graphs		**SATS**		**Shape** Area and perimeter, 2D and			

			3D properties, nets, translation, reflection, coordinates			
Skills	**Mixed times tables**		**Mixed Times tables**			
Term 6	**Shape and geometry** Area and perimeter, 2D and 3D properties, nets, translation, reflection, coordinates	**Statistics and Measure** Converting measure, graphs		**Calculations** Multiplication, division, factors, multiples, prime numbers		
Skills	**Mixed times tables**					