

Year 5 Autumn maths

Prior Learning					
Learning in year 4 Place value - represent Addition & Subtraction Multiplication & Divisio Fractions-partition, com numbers. Key vocabulary for th	and partition numbers to 10,000 – add and subtract up to 2 four digit n -multiply and divide tables facts to pare and order Mixed numbers . Und is unit	numbers with more than one excha x12. Multiply 3 digits by a single dig erstand improper fractions, convert	ange. git. improper fractions to Mixed		
Place Value	Addition & Subtraction	Multiplication and Division	Fractions		
Millions	Add	Multiply	Numerator		
Thousands	Total	Groups of	Denominator		
Hundreds	Make	Lots of	Unit fraction		
Tens	Plus	Times	Non-unit fraction		
Ones	Sum	Divide	Equivalent		
Zero	More	Share	Whole		
Place value	Altogether	Remainder	Mixed number		
Greater than	Difference	Factor	Improper fraction		
Less than	Subtract	Multiple	Simplest form		
Order	Less	product	Multiple		
Round	Minus		Common denominator		
Rounded	Take away		Common numerator		
Negative number	Column addition				
Partition	Column subtraction				
Interval	Estimate				
Sequence	Inverse operation				

Linear sequence	Number facts Place value Complex		
Learning Sequence			
Place Value	 read, write, order and compare numbers up to 100,000 and determine the value of each digit read, write, partition and make numbers to 1,000,000- order and compare numbers up to 1,000,000 Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 		
	 Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. 		
Addition & Subtraction	 Add and subtract whole numbers with more than 4 digits, including using formal written methods. Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. Use the inverse operations to check answers to calculations. Add and subtract numbers mentally with increasingly large numbers. 		
<u>Multiplication and</u> <u>Division</u>	 Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Recognise and use square numbers and cube numbers, and the notation for squared and cubed. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. 		

Fractions	 Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number. Compare and order fractions whose denominators are all multiples of the same number. Add and subtract fractions with the same denominator and denominators that are multiples of the same number. 			
Assessment milestones				
Mathematical skills:		Mathematical knowledge:		
 Place value read, write, order and compare numbers up to 1,000,000 and determine the value of each digit round numbers up to 1 000 000 to the nearest 10, 100, 1000, 10 000 or 100 000 using a number line. compare and order negative numbers. read Roman numerals up to 1000 (M). Addition and subtraction add and subtract numbers with at least 5 digits using mental and written methods. 		 Place value apply knowledge and understanding to solve reasoning problems. solve age-appropriate problems involving negative numbers Addition and subtraction choose a sensible way of calculating when solving a problem. solve one-step and two-step word problems; independently choose appropriate methods for mental 		
subtraction calculations.		calculation.		
Multiplication and Division		Multiplication and Division		
 find factor pairs and identify the common factors of two or more numbers; 		 recall the prime numbers up to 20 and find prime numbers up to and beyond 100 using their multiplication tables knowledge; 		
 multiply numbers up to four digits by one or two-digit numbers using short and long multiplication; 				

- use the formal method of short division to divide numbers up to four digits by a one-digit number.
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000;

Fractions

- compare and order fractions using multiplication and division to find equivalent fractions.
- convert between improper fractions and mixed numbers;
- add and subtract fractions with the same and also different denominators;

 nterpret remainders as whole numbers, decimals and simple fractions and begin to choose the best way to express remainders, depending on the context of the problem;

Fractions

- answer reasoning and problem solving questions to demonstrate understanding
- solve a range of multiplication and division problems, applying their mental and written methods