Year 7 Aspiring Foundation (sets 7-5, 7(5))

Approximate date for assessments: end of half term 1

Theme	Detail	Revised?
Tests of Divisibility	Apply simple tests of divisibility Recognise and use multiples and factors (divisors) and use simple tests of divisibility	
Factors, Multiples and Primes	Recognise multiples up to 10 × 10 Able to determine factors and multiples of numbers by listing Find all the factor pairs for any whole number without any support Identify numbers with exactly 2 factors (primes) Recognise that every number can be written as a product of two factors Understand the difference between factor, multiple and prime numbers Understand the vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples.	
Square and Triangular Numbers	Know square numbers up to 10 x 10 Recognise the first few triangular numbers	
Negative Numbers	Add, subtract negative numbers Multiply, divide negative numbers	

Bidmas	Use inverse operations Use the order of operations with brackets, including in more complex calculations Recognise and use relationships between operations, including inverse operations Be able to work with calculations where numbers are squared within a bracket Know that the contents of brackets are evaluated first Use conventional notation for priority of operations, including brackets and powers Be able to estimate answers to calculations involving 2 or more operations and BODMAS Be able to work with calculations where the brackets are squared or square rooted Understand which part of an expression is raised to a power by knowing the difference between $3 \times (7 + 8)2$ and $32 \times (7 + 8)$ and $(3 \times (7 + 8))2$ To understand the difference between squaring a negative number and subtracting a squared number within a more complex calculation Understand that each of the headings in the place value system, to the left of the units column, can be written as a power of ten Understand the order in which to calculate expressions that contain powers and brackets in both the numerator and denominator of a fraction Use conventional notation for priority of operations, including roots and reciprocals	
Inequalities	use symbols = , ≠, <, >, ≤, ≥ Multiply both sides of an inequality by a negative number Round positive whole numbers to the nearest 10, 100 or 1000 Round decimals to the nearest whole number Approximate before carrying out an addition or subtraction	

Ordering	order positive and negative integers Put digits in the correct place in a calculation Be able to order positive decimals as a list with the smallest on the left. Decimals should be to 4 or 5 significant figures Be able to order positive decimals with the largest on the left. Decimals should be to 4 or 5 significant figures Be able to use > or < correctly between two positive decimals. Decimals should be to 4 or 5 significant figures Use diagrams to compare two or more simple fractions Know what each digit represents in numbers with up to two decimal places Ordering Be able to order negative decimals with the largest on the left. Decimals should be to 2 or 3 significant figures Be able to order negative decimals with the smallest on the left. Decimals should be to 2 or 3 significant figures Be able to use > or < correctly between two negative decimals. Decimals should be to 2 or 3 significant figures	
Rounding and Estimating	Round numbers to decimal places Use rounding to the nearest 10 or a nice number, e.g. 62 to 63 when dividing by 9 etc. Estimating Check a result by considering if it is of the right order of magnitude Make estimates and approximations of calculations - use a range of ways to find an approximate answer Work with numbers rounded to whole numbers or to 1 or 2 decimal places to estimate solutions	

| Multiplication and Division | Extend written methods to TU × TU
Multiply by 0
Multiply three-digit by two-digit whole numbers
Division

Extend written methods to HTU ÷ U
Quickly derive associated division facts
Multiplication/division of decimals by 10, 100, 1000

Know and use the order of operations
Multiply and divide decimals by 10, 100, 1000, and explain the effect | |