

Plan: Abacus Year 5 **Term:** Autumn 2 **School Name:** Seaton Sluice Middle School

Wk	Weekly Summary	Strands	Objectives
6	Recognise which numbers are divisible by 2, 3, 4, 5, 6, 9 and 25 and identify multiples; find factors; recording results systematically and finding all factors of a given number; compare and place fractions on a line; find equivalent fractions and reduce them to their simplest form	Mental multiplication and division (MMD)	MMD.62 Apply divisibility tests for 2, 3, 4, 5, 6, 9, 10 and 25 MMD.63 Recognise common factors and relate these to common multiples MMD.61 Identify factors and multiples, and begin to find common factors
		Fractions, ratio and proportion (FRP)	FRP.55 Compare and order unit fractions and related fractions, using fraction walls and strips FRP.63 Place mixed fractions on a number line to compare fractions with the same denominator FRP.52 Identify the equivalent fraction for any given fraction FRP.58 Use equivalent fractions to reduce any given fraction to its simplest form
7	Use mental strategies to multiply and divide multiples of 10 and 100; use a written method to multiply 3-digit and 4-digit numbers by 1-digit numbers and estimate answers, divide 3-digit numbers by 1-digit numbers using a written method and express remainders as a fraction and solve division word problems	Mental multiplication and division (MMD)	MMD.58 Understand multiplication and division as inverses of each other and use this to find relationships MMD.60 Multiply and divide multiples of 10, 100 and 1000 by 1-digit numbers
		Written multiplication and division (WMD)	WMD.49 Multiply 2- and 3-digit by 1-digit numbers using the ladder method WMD.60 Use the ladder method to multiply 4-digit by 1-digit numbers WMD.52 Divide 3-digit by 1-digit numbers using a written method drawn from mental strategies with integer remainders and answers < 50 WMD.58 Divide 3-digit by 1-digit numbers using a written method drawn from mental strategies with answers > 50, and give answers as appropriate WMD.57 Divide numbers just beyond the tables, with remainders given as fractions where the fraction is obvious
		Problem solving, reasoning and algebra (PRA)	PRA.65 Use mathematical reasoning to explain findings, patterns and relationships PRA.68 Solve problems involving addition, subtraction, multiplication and division and a combination of these
8	Use a protractor to measure and draw angles in degrees; recognise, use terms and classify angles as obtuse, acute and reflex; recognise that angles on	Geometry: properties of shapes (GPS)	GPS.54 Estimate and measure angles, recognising that they are measured in degrees GPS.55 Use a protractor to measure angles, including of a given size GPS.56 Compare and classify acute and obtuse angles; order angles up to 180° GPS.65 Draw a specified given angle and measure it in degrees GPS.68 Compare angles up to 360°, including reflex angles GPS.61 Recognise and identify angles that are multiples of 90°

	a line total 180° and angles round a point total 360° ; identify and name parts of a circle including diameter, radius and circumference; draw circles to a given radius using a pair of compasses; relate angles to turns, and recognise that a 360° angle is a complete turn; use angle facts to solve problems related to turn		<p>GPS.62 Recognise that angles on a straight line total 180° and angles round a point total 360°</p> <p>GPS.72 Know and use the terms radius and diameter; identify the radius and diameter of different circles</p> <p>GPS.73 Draw circles and arcs, including using compasses</p> <p>GPS.74 Draw circles and arcs with a given radius</p> <p>GPS.70 Find missing angles using angles round a point = 360° or angles on a straight line = 180°</p>
		Problem solving, reasoning and algebra (PRA)	PRA.65 Use mathematical reasoning to explain findings, patterns and relationships
9	Place numbers to 100 000 and decimals up to two places on a line, round numbers to the nearest 10, 100 and 1000 and decimals up to two places to the nearest whole number; compare and order numbers with up to two decimal places; reduce fractions to their simplest form; know and recognise equivalent fractions and decimals to half, tenths and fifths	Number and place value (NPV)	<p>NPV.58 Understand place value in 5-digit numbers by creating 5-digit numbers, placing them on a number line and solving place value additions and subtractions</p> <p>NPV.61 Round 5-digit numbers up or down to the nearest 10, 100, 1000 or 10000</p>
		Decimals, percentages and their equivalence to fractions (DPE)	<p>DPE.59 Locate and write 2- place decimals on a number line using length as a context</p> <p>DPE.64 Round 1- and 2-place decimals up and down to the nearest whole number</p> <p>DPE.63 Order and compare 1- and 2-place decimals and find a number between</p>
		Fractions, ratio and proportion (FRP)	<p>FRP.58 Use equivalent fractions to reduce any given fraction to its simplest form</p> <p>FRP.60 Recognise the equivalence of simple fractions and decimals</p>
10	Revise mental and written addition and subtraction strategies, choose to use a mental strategy or written method to solve addition and subtraction, choose to solve word problems involving multiplication and division questions including 2- and 3-digit	Mental addition and subtraction (MAS)	<p>MAS.56 Use mental strategies to add 2-digit, 3-digit and 4-digit numbers</p> <p>MAS.59 Add and subtract larger numbers using place value and number facts</p> <p>MAS.55 Subtract 3-digit from 4-digit numbers by counting up</p> <p>MAS.61 Use counting up as an efficient mental strategy with minimal jottings</p> <p>MAS.58 Understand addition and subtraction as inverses of each other and use this to find relationships</p>
		Written addition and subtraction (WAS)	<p>WAS.56 Use column addition to add several numbers with up to 4-digits with answers > 10000</p> <p>WAS.58 Use expanded or compact decomposition to subtract numbers with up to 4-digits (harder)</p>
		Mental multiplication	MMD.43 Multiply mentally 2-digit by 1-digit numbers using partitioning

by 1-digit and 2-digit by 2-digit using a mental or a written method, use mathematical reasoning to work out a function, identify the operation being used on numbers, understand that addition and subtraction are inverse operations multiplication and division, use function machines	and division (MMD)	<p>MMD.57 Use mental strategies to solve divisions including dividing by 1</p> <p>MMD.60 Multiply and divide multiples of 10, 100 and 1000 by 1-digit numbers</p> <p>MMD.37 Understand division as the inverse of multiplication</p>
	Written multiplication and division (WMD)	<p>WMD.49 Multiply 2- and 3-digit by 1-digit numbers using the ladder method</p> <p>WMD.56 Use the grid method to multiply 2-digit by 2-digit numbers and solve problems in which n objects are connected to m objects (distributive law)</p> <p>WMD.58 Divide 3-digit by 1-digit numbers using a written method drawn from mental strategies with answers > 50, and give answers as appropriate</p>
	Problem solving, reasoning and algebra (PRA)	<p>PRA.68 Solve problems involving addition, subtraction, multiplication and division and a combination of these</p> <p>PRA.65 Use mathematical reasoning to explain findings, patterns and relationships</p> <p>ASSESSMENTS – AUTUMN END OF TERM TEST IN ARITHMETIC, PROBLEM SOLVING AND REASONING</p>