Overview of Methods of Calculation

	Foundation	Lower Primary	Middle Primary	Upper Primary	Lower Secondary	Middle Secondary
Addition and subtraction (whole numbers)	▪ use objects to model	▪ use counting & basic number facts ▪ use place value principles	▪ develop written methods ▪ extend to decimals	▪ use efficient algorithms		▪ extend to binary numbers
Multiplication and division (whole numbers)		▪ use objects to model ▪ use skip counting ▪ use repeated addition	▪ use fact families ▪ build up from known facts (tables) ▪ develop written methods ▪ use distributive property	▪ use powers of 10 ▪ extend to decimals	▪ use efficient algorithms ▪ use equal multiplication by 10 to divide by decimals	
Addition and subtraction (fractions)			▪ use fraction pieces to model ▪ same denominators ▪ related denominators	▪ use efficient algorithms		
Multiplication and division (fractions)			▪ fraction as operator (e.g. find '1/3 of' by dividing into 3 parts) ▪ use area/ array to model (e.g. find 1/3 of 1/5 by dividing square into 5 rows and 3 columns)	▪ division as multiplication by inverse ▪ use efficient algorithms		
Calculators	▪ support for counting and skip counting	▪ check and extend basic facts	▪ use memory ▪ extend by-hand capability to solve problems with realistic numbers		▪ many graphing, trigonometry & scientific requirements	
	Foundation	Lower Primary	Middle Primary	Upper Primary	Lower Secondary	Middle Secondary