Make Sense of Number to Solve Problems

	ADDITIVE STRATEGIES PROGRESSION	MULTIPLICATIVE STRATEGIES PROGRESSION	PROPORTIONAL REASONING STRATEGIES PROGRESSION	NUMBER SEQUENCE PROGRESSION	PLACE VALUE PROGRESSION	NUMBER FACTS PROGRESSION
	MOST ADULTS WILL BE ABLE TO:	MOST ADULTS WILL BE ABLE TO:	MOST ADULTS WILL BE ABLE TO:	MOST ADULTS WILL KNOW:	MOST ADULTS WILL KNOW:	MOST ADULTS WILL KNOW:
	• solve addition and subtraction problems by counting all the objects.	• solve multiplication problems by counting all the objects.		• the sequence of numbers, forwards and backwards, to at least 20.		• addition facts with sums of 5 or 10 and the decade facts.
	• solve addition and subtraction problems by counting on or counting back, using ones and tens.	• solve multiplication problems by skip-counting, often in conjunction with one-to-one counting and often keeping track of the repeated counts by using materials (for example, fingers) or mental images.	• find a fraction of a set by using equal sharing.	• the sequence of numbers, forwards and backwards, to at least 100 • how to skip-count in twos, fives and tens to 100.	• 10 as a counting unit, the tens in numbers to 100 and the place values of digits in whole numbers up to 100.	• basic addition and subtraction facts up to 10 + 10.
	• solve two-digit by one-digit addition and subtraction problems mentally, using partitioning strategies.	• solve single-digit multiplication and division problems mentally, using known multiplication facts and repeated addition.		• the sequence of numbers, forwards and backwards, to at least 1,000 • the number that is 1, 10 and 100 before or after a given number in the range 0–1,000 • how to skip-count in twos, threes, fives and tens to 1,000 • how to order fractions with like denominators.	• the tens and hundreds in numbers to 1,000 and the place values of digits in whole numbers up to 1,000.	• basic multiplication and division facts up to 10 x 10.
	• solve multi-digit addition and subtraction problems, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• solve multiplication and division problems with single-digit multipliers or divisors mentally, using partitioning strategies and deriving from known multiplication facts.	• use known multiplication and division facts to find fractions of a whole number.	• the sequence of numbers, forwards and backwards, by ones, tens, hundreds and thousands, to a million • how to give the number 1, 10, 100 or 1,000 before or after a given number in the range 0–1,000,000 • the sequence of decimal numbers in tenths and hundredths • how to order unit fractions.	• how many tens, hundreds and thousands there are in any whole number • that 10 tenths make one whole.	• basic multiplication facts with tens, hundreds and thousands • fraction and decimal groupings that make 1.
	• solve addition and subtraction problems involving decimals and integers, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• solve multiplication or division problems with multi-digit whole numbers, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• use multiplication and division strategies to solve problems that involve simple equivalent fractions and simple conversions between fractions, decimals and percentages.	• the sequences of integers, fractions, decimals and percentages, forwards and backwards, from any given number.	• how many tenths, hundredths and thousandths are in any number, including decimal numbers • how to convert percentages to decimals and vice versa • what happens when a whole number or decimal is multiplied or divided by a power of 10.	• common factors of numbers up to 100 • fraction, decimal and percentage conversions for halves, thirds, quarters, fifths and tenths • the convention for exponents.
	• solve addition and subtraction problems involving fractions, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• solve multiplication or division problems with decimals, fractions and percentages, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• use multiplication and division strategies to solve problems that involve proportions, ratios and rates.			