Grade 4
Mental Math Strategies

Skip Counting: Children should review counting by 2's, 5's, 10's, 25's and 100's.

SCO: **N3: Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3 and 4-digit numerals) by**
- **using personal strategies for adding and subtracting**
- **estimating sums and differences**
- **solving problems involving addition and subtraction**

Some strategies to consider: using benchmarks, rounding, front-end addition and subtraction (left-to-right calculations), and clustering of compatible numbers.

- ➢ benchmarks: 207 – 126 would give an answer between 75 (200 - 125), and 85 (210 - 125)
- ➢ rounding: 439 + 52 is approximately 440 + 50.
- ➢ front-end: 138 + 245 = 370 (200 + 100 is 300, 30 + 40 is 70 for an estimate of 370). Some students may include the ones in their estimate making their answer 380.
- ➢ front-end subtraction: 476 – 348 = 130 (400 – 300 is 100, 70 – 40 is 30, 6 and 8 are about the same so I'll ignore them; my estimate is 130.
- ➢ clustering: cluster the 29, 35, and 42 together to make 100.
- ➢ compatibles: 225 + 68 + 75 = (225 + 75) + 68 = 368

See also Mental Math in the Middle Grades
Lessons 10, 11, 13, 15 to 18, and 21

SCO:N5: Describe and apply mental mathematics strategies, such as:
- ➢ skip counting from a known fact
- ➢ using doubling or halving
- ➢ using doubling or halving and adding or subtracting one more group
- ➢ using patterns in the 9s facts
- ➢ using repeated doubling to determine basic multiplication facts to 9 × 9 and related division facts.