Students' fluency with adding and subtracting numbers within 20 support all the grade 2 level standards within the Operations and Algebraic Thinking domain. Fluently means efficient, accurate, flexible, and appropriate strategy use. It involves a mixture of just knowing some answers, knowing some answers from patterns, and knowing some answers from the use of strategies (NYS Next Generation Mathematics Learning Standards). Mental strategies help students make sense of number relationships. Mental strategies include counting on, making ten, using the relationship between addition and subtraction, creating equivalent but easier or known sums, and near doubles. Students make sense of the part-whole relationships, work flexibly with numbers and use strategies and properties of operations to solve addition and subtraction problems. By the end of Grade 2, students will know from memory all sums within 20 of two one-digit numbers. To retrieve facts from memory, students must use efficient strategies that they have learned. Building students' strengths with fluency strategies leads to automaticity and recall of facts.

Fluently add and subtract within 20 using mental strategies.
Strategies could include: counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.
Know from memory all sums within 20 of two one-digit numbers.