



Strategy Instruction: Addition - The Addition Fact Fluency Flexible Learning Progression

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1 As I shared in the explanation of procedural fluency, students must learn to use strategies so that they
2 can choose among them. This begins with basic facts! The Addition Fact Fluency Flexible Learning
3 Progression illustrates an instructional sequence to ensure that students develop automaticity with their
4 addition facts. This sequence is based on developing fact fluency through number relationships, not
5 memorization.

6 Shown in red, are the *foundational fact sets*. The foundational facts are required for applying the
7 derived fact strategies, so it is essential that students first develop automaticity with these fact sets. For
8 example, playing games that involve finding combinations of 10 is a great way to practice this fact set
9 and develop automaticity.

10 Once students are automatic with their foundational facts, they are ready to learn strategies. Let's look
11 at $8 + 6$. A student using the *Make 10 strategy* notices that 8 is two away from 10, so they decompose 6
12 into 2 and 4 to make a ten, and then add $10 + 4$. Notice they must know both combinations of 10 and
13 ten and some more facts to use this strategy.

14 After students have learned to use each strategy, then it is time to plan opportunities for students to
15 choose among strategies. For example, with $7 + 9$, a student could choose a near double strategy, the
16 make 10 strategy, or the pretend a 10 strategy.

17 Over time, students become adept at using these strategies and eventually develop automaticity with
18 all single digit addition facts.



19 These strategies also grow beyond single digit addition! Take $38 + 26$. A student can make a ten by
20 moving 2 over to create the new expression $40 + 24$. And, it doesn't stop there, this strategy works with
21 fractions and decimals, where the goal is to make a whole. For example, for $2.8 + 3.9$, a student might
22 move 0.2 to 2.8 OR they might move one tenth to 3.9.

23 As you have seen, noticing number relationships can help students see efficient ways to add. This is
24 critical with basic facts and beyond. By teaching through this progression, and focusing on strategies,
25 you help students think flexibly about numbers and lay the foundation for more advanced
26 problem-solving in the future.