

Memorizing Addition : Tips & Tricks

1. First, start with the **doubles**: $1+1$, $2+2$, etc, all the way up through $12+12$. Make sure she knows these inside out, upside down and backwards. Take your time and get it right - almost everything else is based on these patterns.

2. Learn Counting by 2's. Memorize this inside out and backwards.

3. After that, go to the 12 addition facts that are "**one more than**" the doubles: $1+2$, $2+3$, $3+4$, etc, all the way up to $12+13$. The answer is always one more than the doubles, which we definitely know. Example: $7+8$: Since $7+7 = 14$, then one more is 15.

4. Next, move on to the "**doubles plus 2**". $1+3$, $2+4$, $3+5$, up to $11+13$. There are 2 ways to look at this: First, the double plus 2 more (some kids like this).

Second, notice that if you change the "piles" and borrow one from the larger pile and put it into the smaller, you have doubles - of the counting number that is "missing" between the two you are adding. We call this group the Missing Doubles.

Example: $6+8$: If you borrow one from 8, that leaves 7. Put the one you borrowed in the 6 pile and you have 7 again. So $6+8$ is the same as $7+7$ and that we know also. Notice that 7 is the counting number between 6 and 8.

5. Adding 1 is a joke, **adding 2** is easy, also.

6. Adding ten: practice with the single digit numbers: $10+1$ through $10+9$. You write down the number (not the 10, the other one) and stick a 1 in front of it.

7. Adding 9: Same as 10, but it is one less. I like to subtract one before I put the one in front of it. $9+5$ One less than 5 is 4; with a 1 in front of it is 14. I've also seen this taught this way: Think of $10+5$ instead of $9+5$, then take away 1. $10+5=15$ take away one is 14.

Make sure she can **count by 2's** and understands the pattern blocks, through 100. Now, can she count by 2's, starting with 1? (the odd numbers). If not, this is really important. She needs the beginning pattern (1, 3, 5, 7, 9) and understanding of the whole block through 101.

8. Last one here: **Add 4**:

9. Since 4 is $2+2$, and counting by 2's is so easy (see above), just "count by 2's, twice". This is why the odd numbers are so important:

Example: $37+4$: Counting by 2's, is 39 / 41. No carrying, quick and easy, anybody can "count up 2" in their heads.

This is usually all the patterns a student needs to get started. They start finding their own patterns after that, and remembering their facts because they are so relaxed - you can always figure them out quickly and efficiently if you forget.