Addition Math Fact Progression Using Strategies

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Materials: one package of addition math fact cards (you can purchase this at the dollar store OR you can go to my webpage and print the file I have created of all the math facts with the strategies listed on the back)

Special notes:

- Only introduce the math facts of the current strategy you are working on and then any previous strategies your child has mastered. This allows your child to develop confidence and continually build on what he or she knows.
- The Commutative Property ("turnaround principle") helps us because we can change the order of the numbers (known as addends) and know that the answer (known as the sum) will be the same, so we want to be sure to include these at every step along the way.
- Progress to the next strategy when you feel like your child has a good sense of the facts in the strategy. We want students to have relative speed, accuracy, efficiency, and flexibility of thought by using strategies.
- When given a math fact, it is possible <u>many strategies can be used to figure out the answer</u> – just because I have listed them under one strategy does not mean that your child should only solve it using that strategy – he/she should use the one that helps them determine the sum in the most efficient way for them.

Plus 0 any number plus 0 results in the number we started with

0 + 0, 1 + 0, 2 + 0, 3 + 0, 4 + 0, 5 + 0, 6 + 0, 7 + 0, 8 + 0, 9 + 0, 10 + 0

0 + 1, 0 + 2, 0 + 3, 0 + 4, 0 + 5, 0 + 6, 0 + 7, 0 + 8, 0 + 9, 0 + 10

Plus 1 any number plus 1 results in the next counting number

0 + 1, 1 + 1, 2 + 1, 3 + 1, 4 + 1, 5 + 1, 6 + 1, 7 + 1, 8 + 1, 9 + 1, 10 + 1

1 + 0, 1 + 2, 1 + 3, 1 + 4, 1 + 5, 1 + 6, 1 + 7, 1 + 8, 1 + 9, 1 + 10

Count on 2 or 3 within 5 whenever we are adding 2 or 3 to another number; we have already learned some, so here are the additional ones 2 + 2, 3 + 2, 2 + 3

Combination that make 5 there are no cards for this because they have already been covered in the previous strategies, but we do want to make sure they know these with automaticity 0 + 5, 1 + 4, 2 + 3, 3 + 2, 4 + 1, 5 + 0

Count on 2 or 3 within 10 when working on these facts, have students pay attention to the fact that it is more efficient if we start with the larger number and then count on even when it appears second

4 + 2, 5 + 2, 6 + 2, 7 + 2, 8 + 2, 3 + 3, 4 + 3, 5 + 3, 6 + 3, 7 + 3

2 + 4, 2 + 5, 2 + 6, 2 + 7, 2 + 8, 3 + 4, 3 + 5, 3 + 6, 3 + 7

Pairs that make 10 knowing these combinations is a VITAL skill your child needs to support more advanced math strategies and concepts (you can play Go Fish but instead of making pairs, make pairs that add to 10) Already covered – 10 + 0, 9 + 1, 8 + 2, 7 + 3, 3 + 7, 2 + 8, 1 + 9, 0 + 10 Additional facts: 6 + 4, 5 + 5, 4 + 6

Plus 10 teen numbers are composed of a ten and a collection of ones; encourage your child to notice the pattern that the number added to 10 ends up in the ones place

10 + 4, 10 + 5, 10 + 6, 10 + 7, 10 + 8, 10 + 9, 4 + 10, 5 + 10, 6 + 10, 7 + 10, 8 + 10, 9 + 10

Doubles knowing these facts helps with more that are coming up; have them hold up fingers for one addend and you hold up the same number of fingers – as shown in the picture, notice how the 2 - 5's make 10 and then the two 2's are 4, so 7 + 7 is renamed as 10 + 4

4 + 4, 6 + 6, 7 + 7, 8 + 8, 9 + 9, 10 + 10

Doubles Plus 1 or Minus 1 when we add two numbers that are one apart, we can use doubles to help us make it simpler (for example, when adding 7 + 8, encourage your child to think that since 7 + 7 = 14, then we know that 7 + 8 must be one more, so 7 + 8 = 15; they can also think of it as 8 + 8 = 16, so 8 + 7 is one less than that and 8 + 7 must be 15)

4 + 5, 5 + 6, 6 + 7, 7 + 8, 5 + 4, 6 + 5, 7 + 6, 8 + 7

Doubles Plus 2 or Minus 2, or Monkey in the Middle (you can double the middle number) when we add two numbers that are two apart, we can use doubles to help us make it simpler (for example, when adding 6 + 8, encourage your child to think that since 6 + 6 = 12, then we know that 6 + 8 must be two more, so 6 + 8 = 14; they can also think of it as 8 + 8 = 16, so 8 + 6 is two less than that and 8 + 6 must be 14); one last way is to give one from the larger to the smaller one and rename it as a doubles fact of the number in the middle, so 5 + 7 is renamed to 6 + 6

3 + 5, 5 + 3, 4 + 6, 6 + 4, 7 + 5, 5 + 7, 8 + 6, 6 + 8, 7 + 9, 9 + 7

Bridge 10 with a 9 take one from the number you are adding to make a 10 with the 9 and then add the rest to the 10 (for example, 9 + 5 is the same as 9 + 1 + 4 ➔ 10 + 4 = 14 is easier to deal with in our brain)

9 + 4, 9 + 5, 9 + 6, 9 + 7, 9 + 8, 9 + 10, 4 + 9, 5 + 9, 6 + 9, 7 + 9, 8 + 9, 10 + 9

Bridge 10 with 7 or 8 take 2 or 3 from the other number to make a 10 with the 7 or 8 and then add the rest to the 10 (for example, 8 + 5 = 8 + 2 + 3 (break apart the 5 into 2 + 3) = 10 + 3 = 13

4 + 8, 5 + 8, 4 + 7, 8 + 4, 8 + 5, 7 + 4