Building Strong Math Foundations



Addition Facts: A Quick Guide for Families

This quick guide complements our video series, offering a quick reference. Watch the videos for in-depth explanations and examples!



Building fluency with addition facts is not a quick process. Give your child the time they need to work through all 3 levels. Try to make math playful and keep the pressure away. Allowing your child to explore the numbers and their relationships will build deeper understanding of the math and a better relationship with math in the long run.

1. Teach what it means to add

Children need to understand that adding means to join or combine two or more groups. Help build this understanding by modeling addition in real world situations using physical objects such as blocks, crackers, pencils, etc.

What this looks like:





- How many blueberries do you have? (3) I'm giving you 2 more blueberries. How many do you have now? (5)
- You added 3 and 2 together and saw you have 5 now!

Ask:

Can you show me how you got that answer?

What if I gave you one more?
Two more?

What happens when we put these two groups together?

How many [objects] do you have now? (After adding a few more to the group)

2. Teach them to "count on"

Model putting one number in your head and counting on with the other number. It is okay if your child begins by always putting the first number in their head and counting on with the second. Over time, help them think about efficiency by asking questions to guide their thinking.

What this looks like:

Let's put 4 in our head and start counting on with 3 from there



Ask:

Which number is easier to start with? Why?

If you start with this number (e.g. 4) what comes next?

Once we have (4) in our head, what do you think we should do next?

What happens if you start with the bigger number instead of the smaller one? Can you try it?



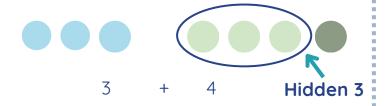
Teach Numerical Reasoning Strategies

Numerical reasoning strategies are critical to becoming truly fluent in basic facts AND also support later mathematical work. They are accessible to kids because they tap into kids' knowledge of friendly numbers (numbers and facts they already know). Teach each of the 4 numerical reasoning strategies separately, but eventually encourage your child to choose the strategy that makes the most sense to them for the problem based on the numbers.

Strategy 1: Use Doubles

Help your child look for and notice doubles (such as 4 + 4) inside addition problems. Drawing or modeling the problem with physical items will help your child be more likely to see the double. If your child does not know doubles yet, spend some time helping them identify and explore doubles first.

What this looks like:



Ask:

What does it mean when we say something is a double? Can you give me an example?

Can you spot a hidden double inside this problem? Is there a way you could use the double to help yourself find the answer?

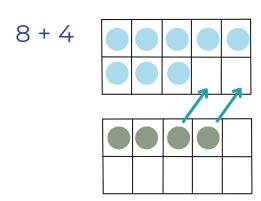
What is a double close to 6 + 7 that might help us figure it out?

If we know 3 + 3 = 6, how could we use that to help us answer 3 + 4?

Strategy 2: Make a Ten

It works best to teach this strategy using a double ten frame. Set up each number on its own ten frame, preferably in a different color or object. Have your child look for a way to "make ten" (or fill a ten frame) with one of the numbers by moving some from the other number.

What this looks like:



Ask:

How many more counters do you need to make a ten on this frame?

How does making a ten help you solve the problem?

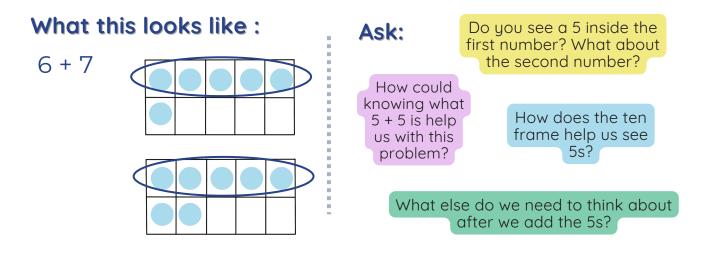
Can you move some counters from one frame to another to make a full ten?

How can this strategy help you with other addition problems?



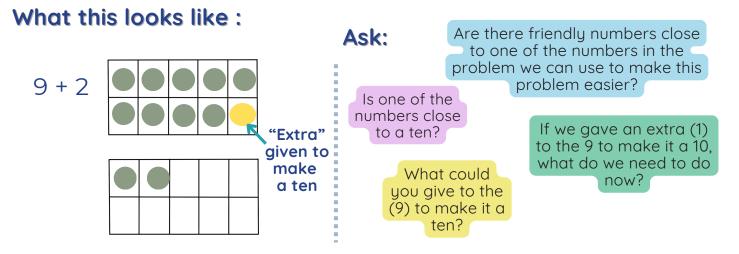
Strategy 3: Use Fives

It can be helpful to teach this strategy on a double ten frame. Set up each number on its own ten frame. Have your child look for fives in both numbers. Be strategic in the numbers you choose when teaching this strategy so that they are reasonably close to 5.



Strategy 4: Compensation

It works best to teach this strategy using a double ten frame. Set up each number on its own ten frame. Have your child look for a way to "make a ten" (or fill a ten frame) by giving some "extra" to one of the numbers. Whatever they "give" to the ten, they will need to remove at the end of the problem. Note this is different from the *Make a Ten* strategy because they are not taking from the other number to make a ten.





Tips for Practice:



Make it part of a game!

Kids love to play games so maximize their learning by turning practice time into game time!

Games don't have to be complicated or involve a lot of set up! An easy idea is to grab two dice and have your child roll them to get the two numbers they are adding. You can also make number cards or print ours if you want to get to numbers larger than 6.

We've also got several games on our website to support addition and subtraction that you can check out!



Tap into their interests!

Use objects and stories that will engage your child as you practice on the ten frame.

Mini erasers, fruit snacks, and buttons are items our children have loved.

Make up stories that contain math problems as you practice and encourage your child to find the answers using the ten frame.

Integrate thinking throughout the day

Be on the lookout for natural opportunities to help your child notice and think about relationships between numbers. Noticing relationships between any set of numbers is valuable, but we especially try to help our children make connections back to 10.

Ask questions like "Is that more or less than ten?" "How many more would we need to make that a ten?" "How many would we need to take away to make a ten?" "What are some different combinations that could get us to ten?"