

MATH TALKS: NUMBER STRINGS

Using math talks in the classroom is a great way for students to begin to understand math in a more *conceptual* way! It can be easy to put up a math question and think you are hosting a math talk but remember... the most important part is having your students **meaningfully TALK** about the concepts. A math talk is something that should take place every day in your classroom for about 3-5 minutes per day! See more about how to do this below:

I have 4 phrases that I use in my K-2 classroom all the time to foster meaningful math conversations. The four phrases

I love to use are:

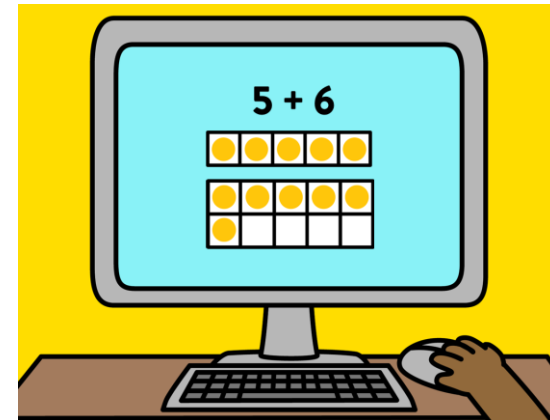
- Tell me more...
- What did ____ say?
- Do you agree/disagree? Why?
- Could you solve this a different way?

You can see more about each phrase and **WHY** they're important in my video below:



Number Strings: I usually spend more time on number strings as a math talk (closer to 10 minutes) because when discussing these skills, you want to talk about the relationship between the problems!

There are 10 slides for each of the skills taught in this number talk unit, so be sure to use the links on the next page to access the beginning slide. I also include some talking notes on each slide to help guide. Essentially with number strings, you will want to use a “base problem” to help explain other, more difficult problems and show a strategy. For example, when teaching doubles +1, you will start with $3+3$, then show $3+4$ as $3+3+1$. Then you'll go back to another doubles fact, $5+5$, and show $5+6$ with visuals.



There is an editable slide at the end of this unit for you to add your own!

NUMBER STRING STRATEGIES:

Click below to quickly access the slides for each of the following strategies ([look in the notes section of Google Slides for talking points!!](#))

1	<p><u>Anchoring the number 5:</u></p> <p>Here you want students to recognize that numbers 6-10 can be seen as 5+?. This allows them to count on and start to see 5 as an anchor number as they get older and progress to more difficult skills. We use visuals to see 5 in a ten-frame, then talk students through how an image of 6 is just 5 plus one more. Then we move to abstract numbers.</p>
2	<p><u>Anchoring the number 10:</u></p> <p>Similar to above, but here students are anchoring the number 10 as a friendly number. We will use base-10 blocks and 10-frames as visuals.</p>
3	<p><u>Doubles +1:</u></p> <p>The visuals walk students through identifying near doubles facts and allows them to see how they can use their knowledge of doubles facts to help them add.</p>
4	<p><u>Making 10 when adding:</u></p> <p>Making 10 is a great addition strategy for students to use when adding and beginning to decompose numbers. Here students can walk through identifying pairs of 10 then adding 1 and 2 more. This can help students visualize how to decompose numbers and make tens.</p>

5	<p><u>Adding multiples of 10 to any number:</u></p> <p>This number string allows students to start thinking how they could add up in chunks by place value. We start teaching this by showing students how they can add multiples of 10 to any number. They will see this through visuals, and we will discuss how only the tens place is changing as we add. Eventually this skill will help students with decomposing number by place value to add.</p>
6	<p><u>Decomposing to make friendly numbers (multiples of 10):</u></p> <p>This takes the “making 10” strategy and turns it up a notch to help students see how they can apply this strategy to multiples of ten as well. They will visually see how we can decompose numbers to get to friendly or landmark numbers, then add on.</p>
7	<p><u>Decomposing by place value to add:</u></p> <p>This is the next step after students learning to add multiples of 10 to any number quickly and efficiently. These number strings allow students to see how to decompose two-digit numbers into tens and ones and add them to another number.</p>
8	<p><u>Decomposing by place value to subtract:</u></p> <p>Similar to above, students will decompose two-digit numbers into tens and ones to subtract them more easily from other numbers.</p>

-> Editable slides to add your own

NUMBER STRINGS:

Number strings are a set of related problems with “base problems” (or helper problems) included to help students learn and conceptualize a new strategy. The strings are 10 slides each for one skill and are meant to be taught in one (or two if needed) sitting. We want students to discuss the relationship between the set of problems and see how some problems help us solve others.

