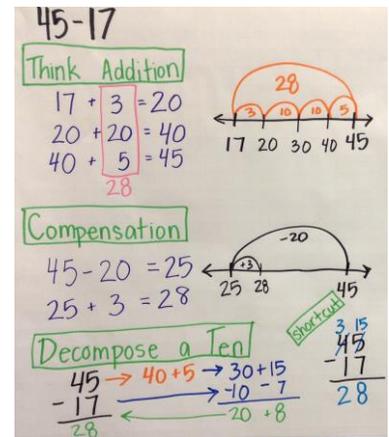


Number Talks and Dot Talks

What are Number Talks?

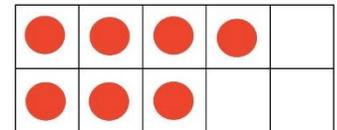
Number Talks are short, 5 – 15 minutes, carefully planned daily exercises aimed at building number sense. Number sense refers to an understanding of relationships between numbers and operations as well as the ability to apply this understanding in flexible ways where students can visualize problem solving, perform calculations efficiently, and are flexible in their mathematical strategies. Students who have strong number sense, solve problems in more than one way and check that their answers make sense. During a number talk, students are thinking, asking their peers questions, and explaining their own thinking all while the teacher records the thinking. These exchanges lead to the development of more accurate, efficient, and flexible strategies. Accuracy denotes the ability to produce a correct answer; efficiency denotes the ability to choose an appropriate, useful strategy for a specific computational problem; and flexibility refers to the ability to use number relationships with ease in computation. Number talks can include any type of numbers – e.g. whole, fractions, decimals, integers.



For an example of a number talk – Junior / Intermediate, check out the link here: [A 3 minute illustration of the concept of number sense by Jo Boaler, Stanford University.](#)

What are Dot Talks?

Rather than using numbers and operations, dot images are used to help students build a visual link to composing and decomposing smaller numbers. Incorporating dot images into number talks provides opportunities for younger students to work on counting, seeing numbers in a variety of ways, and in learning number combinations. With each dot image, students are asked how many dots they see and how they see them. Images of number racks and five- and ten-frames are also used in dot talks. They foster fluency, work with place value, and computations of addition and subtraction.



An example of a dot talk can be found here: [Jo Boaler Teaching a Visual Dot Card Number Talk](#)

How can parents support?

Number sense is everywhere, and parents can help their children make connections between what they are learning in school and everyday experiences at home and in the community, such as at the store, cooking at home, or managing money. Here are some ideas about how working with numbers can be part of your regular day-to-day routine:

- Games – Board and card games and puzzles can show that math is fun. They promote skill development, logical thinking, and discussion.
- Grocery store – Discuss how to weigh fruit on a scale or the unit price of an item when comparison shopping. Help your child estimate the total cost of items as you fill your cart.
- Money – Help your child manage money by creating a budget together or saving to make a special purchase. Or you could go shopping together and help with estimating the amount of a purchase, calculating the tax and checking the change.
- Kitchen – Bake, cook and prepare food with your child. Have them count out portions and measure ingredients.

By making math a priority and finding ways to help your child with math at home and in day-to-day life, you are helping to inspire a love of learning, and a better understanding of number sense.