

Developing Number Sense and Math Vocabulary through Number Talks



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<https://www.hoodriver.k12.or.us/Page/6384>

Today's Agenda...

- What are Number Talks?
- Strategies for Math Talk
- Resources
- Practice and Next Steps

Make sense of problems and persevere in solving them



Number Talks

What are they?

- Strategy to make thinking visible
- Strategy to increase math language

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Rate yourself: Fist---1---2---3---4---5
(First time learning about them) (I could teach others)

Number Talks—a math strategy to make thinking visible and increase math language

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Format includes:

- Teacher presents a problem.
- Students figure out the answer.
- Students share their answers.
- Students share their thinking.

Helpful hints:

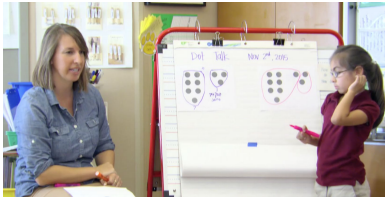
- Keep it short.
- Set up and reinforce expectations for all students during the number talk.
- Create a safe environment. (Mistakes grow our brains)
- Think through problem ahead of time. Anticipate strategies. Practice makes you better.
- Use silent hand signals to engage all learners. (I agree, number of strategies, thumbs up)
- Provide sentence frames for students to practice the language
 - I know that _____
 - I notice _____
 - First I _____ Then I _____
 - I agree with _____
 - I respectfully disagree _____

Number Talks

“Dot Talks Building Fluency with Number”

(Grade 1) (8:44)

<https://www.teachingchannel.org/videos/addition-math-lesson-oud>



What did you notice?

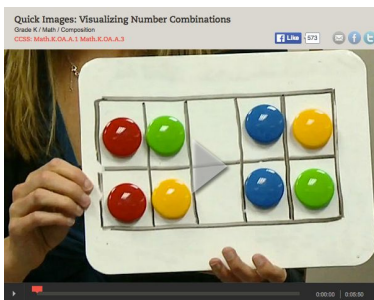
- ★ What's the teacher doing?
- ★ What are the students doing?

Number Talks

“Quick Images”

(Kindergarten)
(5:50)

<https://www.teachingchannel.org/videos/visualizing-number-combinations>

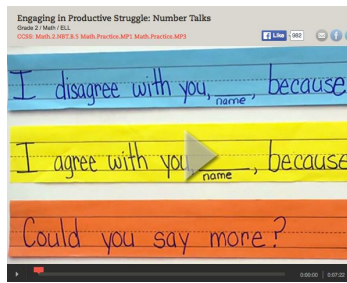


Number Talks

“Engaging in Productive Struggle”

(Grade 2)
(7:22)

<https://www.teachingchannel.org/videos/subtraction-math-lesson-outline>



What did you notice?

- ★ What's the teacher doing?
- ★ What are the students doing?

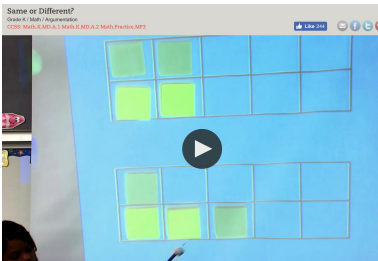
“Same and Different”

“Same or Different”

(Kindergarten)
(3:57)

<https://www.teachingchannel.org/videos/kindergarten-math-lesson-outline>

<https://samedifferentimages.wordpress.com/>

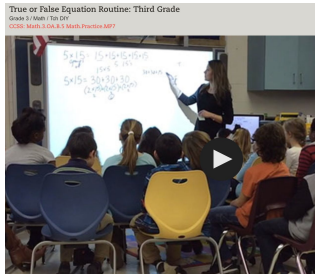


“Notice and Wonder”

“Notice and Wonder Routine Third Grade”

(3rd Grade)
(21:57)

<https://www.teachingchannel.org/videos/notice-and-wonder>



“Which One Doesn’t Belong”

“Which One Doesn’t Belong Grade 4/5”

(4th/5th Grade)
(15:21)

<https://www.teachingchannel.org/videos/4th-5th-grade-math-routine>

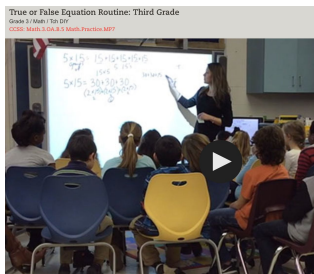


“True or False”

“True or False Third Grade”

(3rd Grade)
(19:37)

<https://www.teachingchannel.org/videos/true-false-equation-routine>

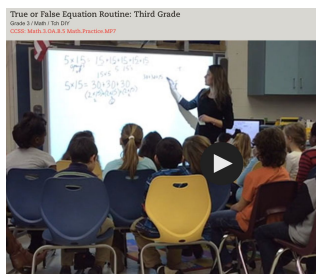


“Problem Strings”

“Multiplication Number String 4th Grade”

(4th Grade)
(21:28)

<https://www.teachingchannel.org/videos/multiplication-number-strings-fourth>



Number Talks

“Reasoning About Division”

(Grade 4/5)
(7:20)

<https://www.teachingchannel.org/videos/common-core-teaching-division>



What did you notice?

- ★ What's the teacher doing?
- ★ What are the students doing?

Articles or More Information

- [Sample Number Strings](#)
- [Number Strings \(4th Grade Example\)](#)
- [Kindergarten Number Strings](#)
- [Dot Plates](#)
- [K-1 Number Talk Resources](#)
- [K-1 Resources by Standard](#)
- [K-2 Number Talk Hints](#)
- [Rekenrek Resources](#)
- [Dot Card Resources](#)
- [Kindergarten Resources](#)
- [Grade 1 Resources](#)
- [Grade 2 Resources](#)
- [Grades 3-5 Resources](#)
- [Number Talks by Grade Level \(K and up\)](#)
- ["Number Talks Build Numerical Reasoning"](#)
- [Middle School Math Talks](#)
- [Middle School Number Talk Resources](#)
- [Middle Level Routine Bank](#)
- [More Resources for Number Talks](#)
- [Secondary Number Talks](#)

- [Difference between Number Talks and Math Lesson](#) by Kath
- [How to Start](#)
- [Using Number Talks to Boost Math Reasoning](#)
- [Number Talks MFC](#)
- [Number Talks for Middle and High School](#)
- [Number Talks in High School](#)
- [Number Talks in the Secondary Classroom](#)
- [MathTalks.net Fawn Nguyen](#)
- [MathTalks.net](#)
- [More Resources for Math Talks SFUSD](#)
- [Fraction Number Strings](#)
- [Number Talk Planning form](#)
- [Number Talks Meet Fractions](#)
- [Fraction Number Strings](#)
- [Fraction Number Talk Resources](#)
- [Number Talk Resources](#)
- [Math Practices Question Prompts](#)
- [Fraction Talks](#)
- [Unit Chats](#)
- [Would you Rather Math Questions](#)
- [Which One Doesn't Belong](#)

Let's Practice...

In Groups of 3

- Using the paper at your table, present a ten frame, a dot arrangement, or add/subtract/multiply/division problem.
- Practice a quick number talk
- Record your tablemates' thinking.

I noticed _____.

First I _____. Then I _____.

I think _____.

I agree because _____.

Next Steps....

- Number Talks?**
- Developing Math Language?**

Next Steps...

I want to _____

.....

Name _____


I commit to _____

trying _____

practicing _____

watching _____

by _____ I would like help with _____



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How did we do?

**Any Questions...
Just Ask!**



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