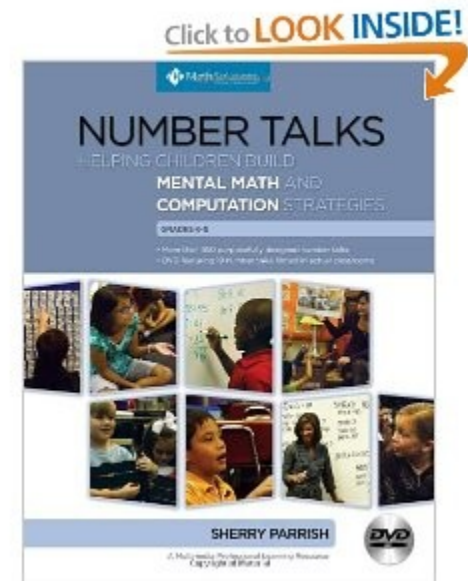


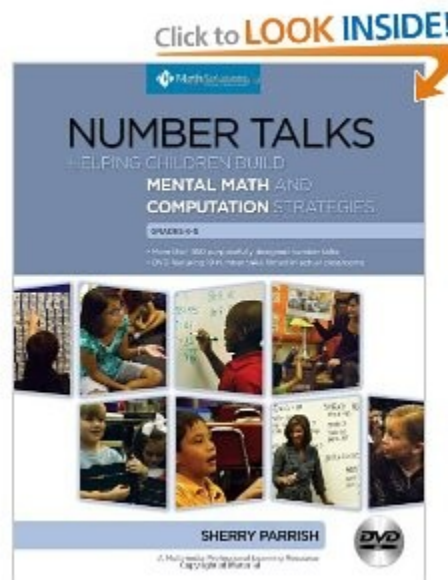
# number Talks

Helping Children Build  
Mental Math and Computation Strategies

# What is a number talks?

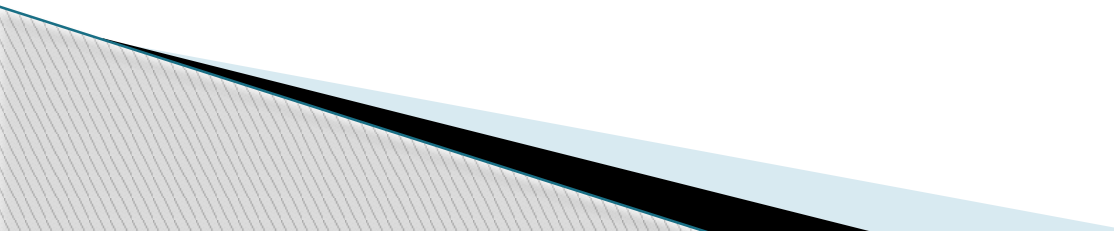
- ▶ Number talks are a regular opportunity for students to engage in reasoning and meaning making in order to increase computational fluency. Students publicly communicate their thinking and develop flexible strategies. Strategies are scripted using a variety of models.



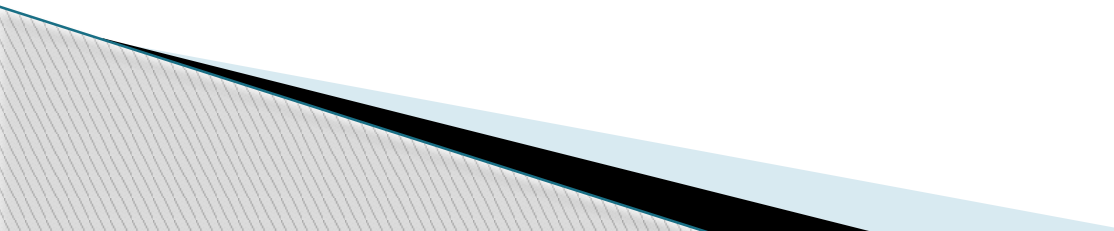


- ▶ Do Number Talks **every day** for 10 - 15 minutes.

# What is the goal of Number Talks?

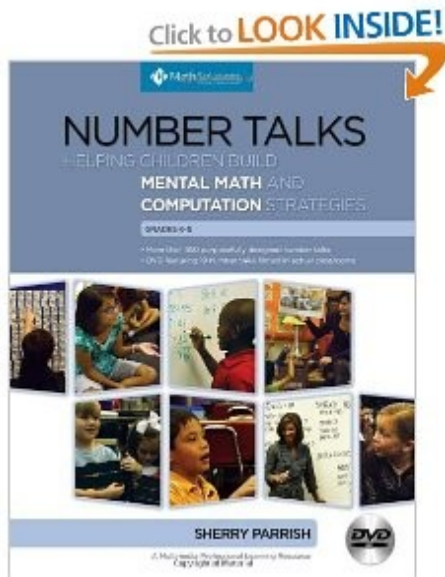
- ▶ The primary goal of Number Talks is computational fluency.
  - ▶ A number Talk is a powerful tool for helping students develop computational fluency because the expectation is that they will use number relationships and the structures of numbers to add, subtract, multiply, and divide.
- 

# What is the format for Number Talks?

- ▶ Number Talks are a large or small group meeting where the teacher poses intentionally selected problems for students to solve.
  - ▶ They are short, ongoing conversations where children are encouraged to add, subtract, multiply, and divide in ways that are meaningful to them, rather than following procedures that are not.
- 

# All number talks follow a basic six-step format.

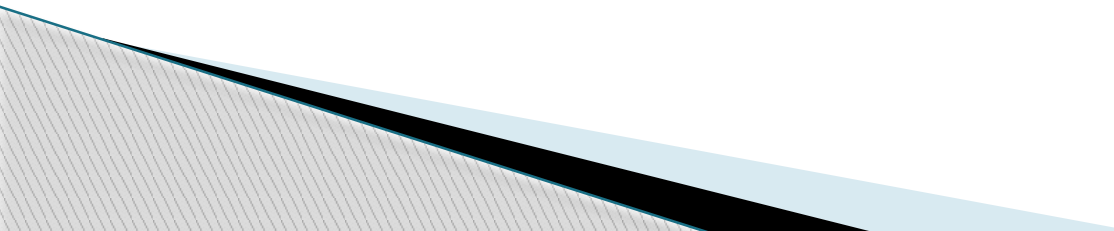
The format is the same, but the problems and models used will differ for each number talk.



# Six - Step Format

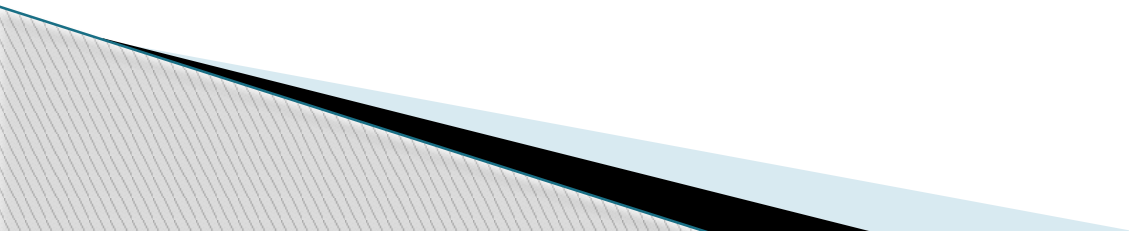
1. Teacher presents the problems.
2. Students figure out the answer.
3. Students share their answers.
4. Students share their thinking.
5. The class agrees on the “real” answer for the problem.
6. The steps are repeated for additional problems.

# Ask questions such as.....

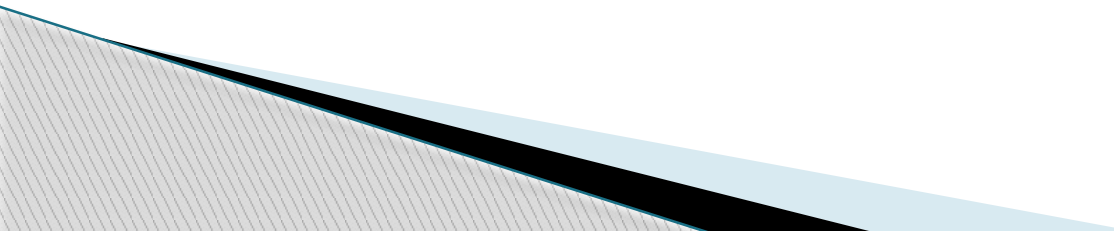
- ▶ How did you think about that?
  - ▶ How did you figure it out?
  - ▶ What did you do next?
  - ▶ Why did you do that? Tell me more.
  - ▶ Who would like to share their thinking?
  - ▶ Did someone solve it a different way?
  - ▶ Who else started the problem this way?
  - ▶ Who else used this strategy to solve the problem?
  - ▶ What strategies do you see being used?
  - ▶ What strategies seem to be efficient, quick, simple?
- 



**Have your students “circle up” in chairs or on the floor.**

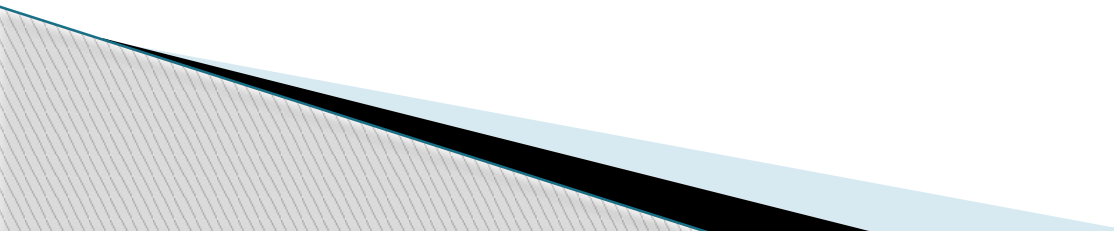


# Give yourself time to learn to:

- ▶ Record student solutions.
  - ▶ Listen to and observe students.
  - ▶ Collect notes about student strategies and understandings.
- 

To help determine what numbers or problem you select, use what you learn from previous number talks as well as the focus of your daily classroom instruction.

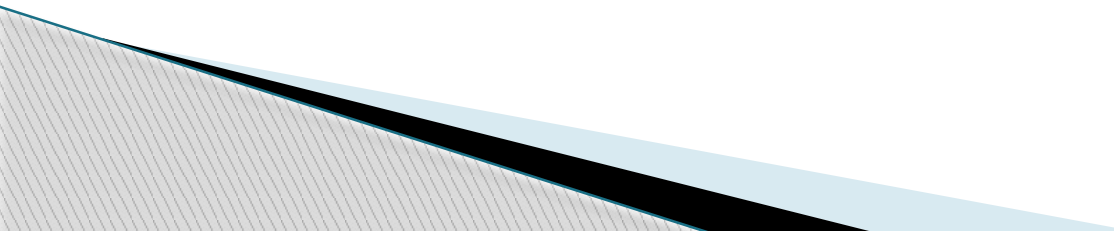
Do number talks with yourself and others to try new strategies and increase your own confidence.



# Name/label the strategies that emerge from your students.

- ▶ Use doubles
- ▶ Break apart numbers
- ▶ Make it simpler
- ▶ Use landmark numbers (25, 50, 75, 200, etc.)
- ▶ Use a model to help
- ▶ Use what you already know.
- ▶ Make a “10”
- ▶ Start with the 10’s
- ▶ Think about multiples
- ▶ Think about money
- ▶ Traditional algorithm
- ▶ Counting on

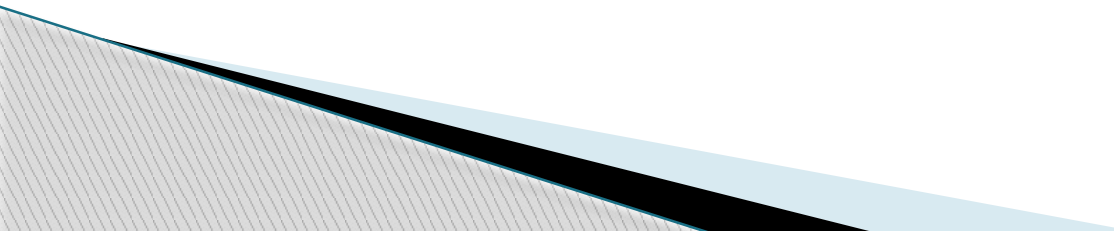
# **There are several elements that must be in place to ensure students get the most from their Number Talks experiences.**

- ▶ A safe environment
  - ▶ Problems of various levels of difficulty that can be solved in a variety of ways
  - ▶ Concrete models
  - ▶ Opportunities to think first and then check
  - ▶ Interaction
  - ▶ Self-correction
- 

## What is the Teacher's Role during Number Talks?

- ▶ During a Number Talk, the interaction between the teacher and students should be like a conversation rather than a report.
- ▶ When the children are explaining their thinking, the teacher must be genuinely interested in what the children are saying.
- ▶ The teacher naturally interacts with the children, helping them to clarify and communicate the process they have used.
- ▶ Teachers help students clarify their thinking in several ways: by asking questions, by describing what the child did, and by writing down the process.

# What behaviors to look for?

- ▶ Students are listening to each other.
  - ▶ Students show increased confidence, flexibility, and fluency with number and number sense.
  - ▶ All students actively engage in trying a problem.
  - ▶ A variety of strategies are suggested.
  - ▶ Many student voices are heard and validated.
- 

# Kids Like Number Talks!!!!

- ▶ Give Number Talks time to become part of your classroom culture.
  - ▶ “Keep on keeping on” and you will get positive results!
- 