

# Math Strategies for Grades K-3

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## Instructional Strategies

### Connecting Data

Incorporate activities and discussions about data into your existing instruction. In kindergarten and first grade, students are learning how to count. In addition to practicing routine skills, such as counting groups of objects, use real-world data and displays to help contextualize these concepts. You might have students collect Legos, sort them by color or shapes, and then make a display to represent each group. In second grade, when studying measurement, students can measure their pencils or other objects using appropriate tools and create graphs of the different lengths. Afterwards, have the students discuss their findings.

## Assessment Strategies

### Number Talks

Number talks allows students to share and justify their answers, enabling students to be flexible in their thinking and reasoning. It provides the teacher an opportunity to step back and allow students to be a bit more in charge of their learning. The teacher can then listen to student responses and determine their level of understanding. It requires students to not only share their answers but their solutions and how they got the answer. Number talks give a teacher better insight into how students take in information and where they are in the process.



## Standards of Mathematical Practices

### Attend to Precision

Students at this level should exhibit the following. Develop their mathematical communication skills. Use clear and precise language in their discussions with others and when they explain their own reasoning.

[Standards for Mathematical Practice Grade Level Emphasis\\*](#)

## Classroom / Time Management Strategies

### Recognize that there are consequences for every decision

Students learn to recognize unsafe situations. Tell an adult of an unsafe situation. Warn a peer about a safety risk. Encourage peers having a dispute to use positive decision-making strategies. Discuss the reasons for having rules. Develop understanding of natural consequences.

[Pennsylvania Early Childhood Education Standards for Second Grade](#)

The resources listed are provided as options and examples.

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